SECURITIES AND EXCHANGE COMMISSION

FORM 10-K

Annual report pursuant to section 13 and 15(d)

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INTERNATIONAL BUSINESS MACHINES CORP
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

ANNUAL REPORT

pursuant to Section 13 or 15 (d) of the
Securities Exchange Act of 1934

FOR THE YEAR ENDED DECEMBER 31, 2022

1-2360
(Commission file number)

INTERNATIONAL BUSINESS MACHINES CORPORATION
(Exact name of registrant as specified in its charter)

New York (State of Incorporation)	**13-0871985** (IRS Employer Identification Number)
One New Orchard Road **Armonk, New York** (Address of principal executive offices)	**10504** (Zip Code)

914-499-1900
(Registrant's telephone number)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Capital stock, par value $.20 per share	IBM	New York Stock Exchange NYSE Chicago
1.250% Notes due 2023	IBM 23A	New York Stock Exchange
1.125% Notes due 2024	IBM 24A	New York Stock Exchange
2.875% Notes due 2025	IBM 25A	New York Stock Exchange
0.950% Notes due 2025	IBM 25B	New York Stock Exchange
0.875% Notes due 2025	IBM 25C	New York Stock Exchange
0.300% Notes due 2026	IBM 26B	New York Stock Exchange
1.250% Notes due 2027	IBM 27B	New York Stock Exchange
3.375% Notes due 2027	IBM 27F	New York Stock Exchange
0.300% Notes due 2028	IBM 28B	New York Stock Exchange
1.750% Notes due 2028	IBM 28A	New York Stock Exchange
1.500% Notes due 2029	IBM 29	New York Stock Exchange
0.875% Notes due 2030	IBM 30A	New York Stock Exchange
1.750% Notes due 2031	IBM 31	New York Stock Exchange
3.625% Notes due 2031	IBM 31B	New York Stock Exchange
0.650% Notes due 2032	IBM 32A	New York Stock Exchange
1.250% Notes due 2034	IBM 34	New York Stock Exchange
3.750% Notes due 2035	IBM 35	New York Stock Exchange
4.875% Notes due 2038	IBM 38	New York Stock Exchange
1.200% Notes due 2040	IBM 40	New York Stock Exchange
4.000% Notes due 2043	IBM 43	New York Stock Exchange
7.00% Debentures due 2025	IBM 25	New York Stock Exchange
6.22% Debentures due 2027	IBM 27	New York Stock Exchange
6.50% Debentures due 2028	IBM 28	New York Stock Exchange
5.875% Debentures due 2032	IBM 32D	New York Stock Exchange
7.00% Debentures due 2045	IBM 45	New York Stock Exchange
7.125% Debentures due 2096	IBM 96	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐	Smaller reporting company ☐
	Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2). Yes ☐ No ☒

The aggregate market value of the voting stock held by non-affiliates of the registrant as of the last business day of the registrant's most recently completed second fiscal quarter was $127.5 billion.

The registrant had 907,105,611 shares of common stock outstanding at February 10, 2023.

Documents incorporated by reference:

Portions of IBM's Annual Report to Stockholders for the year ended December 31, 2022 are incorporated by reference into Parts I, II and IV of this Form 10-K.

Portions of IBM's definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to stockholders in connection with the Annual Meeting of Stockholders to be held April 25, 2023 are incorporated by reference into Part III of this Form 10-K.

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PART I

Item 1. Business:

International Business Machines Corporation (IBM or the company) was incorporated in the State of New York on June 16, 1911, as the Computing-Tabulating-Recording Co. (C-T-R), a consolidation of the Computing Scale Co. of America, the Tabulating Machine Co. and The International Time Recording Co. of New York. Since that time, IBM has focused on the intersection of business insight and technological innovation, and its operations and aims have been international in nature. This was signaled almost 100 years ago, in 1924, when C-T-R changed its name to International Business Machines Corporation. And it continues today—we create sustained value for clients by helping them leverage the power of hybrid cloud and artificial intelligence (AI). Our hybrid cloud platform and AI technology support clients' digital transformations and helps them reimagine critical workflows, at scale, and modernize applications to increase agility, drive innovation and create operational efficiencies. Our offerings draw from leading IBM capabilities in software, consulting services capability to deliver business outcomes, and deep incumbency in mission-critical infrastructure, all bolstered by one of the world's leading research organizations.

The following information is included in IBM's 2022 Annual Report to Stockholders and is incorporated by reference:

IBM Strategy—pages 11 to 13.

Business Segments and Capabilities—pages 14 to 15.

Human Capital—pages 15 to 16.

Strategic Partnerships

We proactively partner with a broad variety of companies including hyperscalers, service providers, global system integrators, and software and hardware vendors. We work alongside our partners to deliver end-to-end solutions that address our clients' complex business challenges while accelerating growth. Our strategic partners include: Adobe, Amazon Web Services (AWS), Cisco Systems, Microsoft, Oracle, Salesforce, Samsung Electronics and SAP, among others.

Companies with which we have strategic partnerships in some areas may be competitors in other areas.

Competition

IBM is a globally integrated enterprise that participates in a highly competitive environment. Our competitors vary by industry segment, and range from large multinational enterprises to smaller, more narrowly focused entities. Across our business segments, we recognize hundreds of competitors worldwide and as we execute our hybrid cloud and AI strategy, we are regularly exposed to new competitors.

Our principal methods of competition are: technology innovation; performance; price; quality; brand; our breadth of capabilities, products and services; talent; client relationships and trust; the ability to deliver business value to clients; and service and support. In order to maintain leadership, we optimize our portfolio with organic and inorganic innovations and effective resource allocation. These investments not only drive current performance but will extend our innovation leadership into the future.

Our breadth and depth of expertise enables us to take different technologies and bring them together to solve the most pressing business issues of our clients. We differentiate from other providers by bringing together incumbency with enterprises, deep expertise in technology, industries and business processes, a broad go-to-market reach including an ecosystem of partners and alliances, and a strong focus on innovation. All of these attributes position IBM for accelerated growth now and prepare us for the next set of business opportunities, such as quantum computing.

Overall, the company is the leader or among the leaders in each of our business segments. A summary of the competitive environment for each business segment is included below:

Software:

The depth, breadth, and innovation of our software offerings, coupled with our global reach, deep industry expertise and research capabilities help differentiate our offerings from our competitors. Our hybrid cloud platform based on open technologies allows clients to realize their digital and AI transformations across the applications, data, and environments in which they operate. The principal competitors in this segment include: Alphabet (Google), Amazon, BMC, Broadcom, Cisco Systems, Informatica, Microsoft, Oracle, Palo Alto Networks, Salesforce, SAP, Splunk and VMware. We also compete with smaller, niche competitors in specific geographic regions or product segments.

Consulting:

Consulting focuses on integrating skills on strategy, experience, technology and operations by domain and industry. Consulting competes in a dynamic market including consulting, systems integration, application management and business process outsourcing services. Our broad-based competitors include: Accenture, Capgemini, India-based service providers, management consulting firms, the consulting practices of public accounting firms, engineering service providers, and many companies that primarily focus on local markets or niche service areas.

Infrastructure:

IBM is well positioned in the growing hybrid cloud infrastructure market, providing on-premises and cloud-based server and storage solutions. We gain advantage and differentiation through investments in higher-value capabilities, including security, scalability, and reliability, designed especially for mission-critical and regulated workloads. In addition, we offer a portfolio of life-cycle services for hybrid cloud infrastructure deployment. Our principal competitors include: Dell Technologies, Hewlett-Packard Enterprise (HPE), Intel, NetApp and Pure Storage as well as original device manufacturers (ODMs) who provide systems that are re-branded. Further, cloud service providers are leveraging innovation in technology and service delivery to compete with traditional providers and to offer new routes to market for server and storage systems.

Financing:

Financing provides client and commercial financing, facilitating IBM clients' acquisition of IT systems, software and services. Financing's ability to manage credit and residual value risk generates a competitive advantage for the company. The key competitive factors include: interest rates charged, IT product experience, client service, contract flexibility, ease of doing business, global capabilities and residual values. In client and commercial financing, Financing primarily competes with non-captive financing entities and financial institutions.

Forward-looking and Cautionary Statements

Certain statements contained in this Form 10-K may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 ("Reform Act"). Forward-looking statements are based on the company's current assumptions regarding future business and financial performance. These statements by their nature address matters that are uncertain to different degrees. The company may also make forward-looking statements in other reports filed with the Securities and Exchange Commission ("SEC"), in materials delivered to stockholders and in press releases. In addition, the company's representatives may from time to time make oral forward-looking statements. Forward-looking statements provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to any historical or current fact. Words such as "anticipates," "believes," "expects," "estimates," "intends," "plans," "projects," and similar expressions, may identify such forward-looking statements. Any forward-looking statement in this Form 10-K speaks only as of the date on which it is made. Except as required by law, the company assumes no obligation to update or revise any forward-looking statements. In accordance with the Reform Act, set forth under Item 1A. “Risk Factors” on pages 3 to 10 are cautionary statements that accompany those forward-looking statements. Readers should carefully review such cautionary statements as they identify certain important factors that could cause actual results to differ materially from those in the forward-looking statements and from historical trends. Those cautionary statements are not exclusive and are in addition to other factors discussed elsewhere in this Form 10-K, in the company's filings with the SEC or in materials incorporated therein by reference.

The following information is included in IBM's 2022 Annual Report to Stockholders and is incorporated herein by reference:

Segment information and revenue by classes of similar products or services—pages 70 to 73.

Financial information regarding environmental activities—page 95.

The number of persons employed by the registrant—page 15.

The management discussion overview—pages 8 to 10.

Website information and company reporting—page 122.

Information About Our Executive Officers (at February 28, 2023):

	Age	Officer since
Arvind Krishna, Chairman of the Board and Chief Executive Officer*	60	2020
Michelle H. Browdy, Senior Vice President, Legal and Regulatory Affairs, and General Counsel	58	2015
Gary D. Cohn, Vice Chairman	62	2021
Nicolas A. Fehring, Vice President and Controller	44	2023
James J. Kavanaugh, Senior Vice President and Chief Financial Officer, Finance and Operations	56	2008
Nickle J. LaMoreaux, Senior Vice President and Chief Human Resources Officer	43	2020
Tom Rosamilia, Senior Vice President and Senior Advisor	62	2021

* Member of the Board of Directors.

All executive officers are elected by the Board of Directors annually as provided in the Company's By-laws. Each executive officer named above, with the exception of Gary D. Cohn, has been an executive of IBM or its subsidiaries during the past five years. Mr. Cohn previously served as Assistant to the President for Economic Policy and Director of the National Economic Council from January 2017 until April 2018. Before serving in the White House, Mr. Cohn was President and Chief Operating Officer of The Goldman Sachs Group, Inc. from 2006-2016.

Item 1A. Risk Factors:

Risks Related to Our Business

Downturn in Economic Environment and Client Spending Budgets Could Impact the Company's Business: If overall demand for IBM's products and solutions decreases, whether due to general economic conditions, or a shift in client buying patterns, the company's revenue and profit could be impacted.

Failure of Innovation Initiatives Could Impact the Long-Term Success of the Company: IBM has moved into areas, including those that incorporate or utilize hybrid cloud, artificial intelligence, quantum and other disruptive technologies, in which it can differentiate itself through responsible innovation, by leveraging its investments in R&D and attracting a successful developer ecosystem. If IBM is unable to continue its cutting-edge innovation in a highly competitive and rapidly evolving environment or is unable to commercialize such innovations, expand and scale them with sufficient speed and versatility or is unable to attract a successful developer ecosystem, the company could fail in its ongoing efforts to maintain and increase its market share and its profit margins.

Damage to IBM's Reputation Could Impact the Company's Business: IBM has one of the strongest brand names in the world, and its brand and overall reputation could be negatively impacted by many factors, including if the company does not continue to be recognized for its industry leading technology and solutions and as a hybrid cloud and AI leader. IBM's reputation is potentially susceptible to damage by events such as significant disputes with clients, product defects, internal control deficiencies, delivery failures, cybersecurity incidents, government investigations or legal proceedings or actions of current or former clients, directors, employees, competitors, vendors, alliance partners or joint venture partners. If the company's brand image is tarnished by negative perceptions, its ability to attract and retain customers, talent and ecosystem partners could be impacted.

Risks from Investing in Growth Opportunities Could Impact the Company's Business: The company continues to invest significantly in key strategic areas to drive revenue growth and market share gains. Client adoption rates and viable economic models are less certain in the high-value, highly competitive, and rapidly-growing segments. Additionally, emerging business and delivery models may unfavorably impact demand and profitability for our other products or services. If the company does not adequately and timely anticipate and respond to changes in customer and market preferences, competitive actions, disruptive technologies, emerging business models and ecosystems, the client demand for our products or services may decline or IBM's costs may increase.

IBM's Intellectual Property Portfolio May Not Prevent Competitive Offerings, and IBM May Not Be Able to Obtain Necessary Licenses: The company's patents and other intellectual property may not prevent competitors from independently developing products and services similar to or duplicative to the company's, nor can there be any assurance that the resources invested by the company to protect its intellectual property will be sufficient or that the company's intellectual property portfolio will adequately deter misappropriation or improper use of the company's technology. In addition, the company may be the target of aggressive and opportunistic enforcement of patents by third parties, including non-practicing entities. Also, there can be no assurances that IBM will be able to obtain from third parties the licenses it needs in the future. The company's ability to protect its intellectual property could also be impacted by a lack of effective legal protections as well as changes to existing laws, legal principles and regulations governing intellectual property, including the ownership and protection of patents.

Certain of the company's offerings incorporate or utilize open source and other third-party software licensed with limited or no warranties, indemnification, or other contractual protections for IBM. Further, if open source code that IBM utilizes is no longer maintained, developed or enhanced by the relevant community of independent open source software programmers, most of whom we do not employ, we may be unable to develop new technologies, adequately enhance our existing technologies or meet customer requirements for innovation, quality and price.

Risks to the Company from Acquisitions, Alliances and Dispositions Include Integration Challenges, Failure to Achieve Objectives, the Assumption of Liabilities and Higher Debt Levels: The company has made and expects to continue to make acquisitions, alliances and dispositions. Such transactions present significant challenges and risks and there can be no assurances that the company will manage such transactions successfully or that strategic opportunities will be available to the company on acceptable terms or at all. The related risks include the company failing to achieve strategic objectives, anticipated revenue improvements and cost savings, the failure to retain key strategic relationships of acquired companies, the failure to retain key personnel and the assumption of liabilities related to litigation or other legal proceedings involving the businesses in such transactions, as well as the failure to close planned transactions. Such transactions may require the company to secure financing and any significant disruption or turmoil in the capital markets could have an adverse effect on IBM's ability to access the capital markets at favorable terms. From time to time, the company disposes or attempts to dispose of assets that are no longer central to its strategic objectives. Any such disposition or attempted disposition is subject to risks, including risks related to the terms and timing of such disposition, risks related to obtaining necessary governmental or regulatory approvals and risks related to retained liabilities not subject to the company's control.

The Company's Financial Results for Particular Periods Are Difficult to Predict: IBM's revenues and profitability are affected by such factors as the introduction of new products and services, the ability to compete effectively in increasingly competitive marketplaces, the length of the sales cycles and the seasonality of technology purchases. In addition, certain of the company's growth areas involve new products, new customers, new and evolving competitors, and new markets, all of which contribute to the difficulty of predicting the company's financial results. The company's financial results may also be impacted by the structure of products and services contracts and the nature of its customers' businesses; for example, certain of the company's services contracts with commercial customers in regulated industries are subject to periodic review by regulators with respect to controls and processes. Further, general economic conditions, including sudden shifts in regional or global economic activity may impact the company's financial results in any particular period. As a result of the above-mentioned factors, the company's financial results are difficult to predict. Historically, the company has had lower revenue in the first quarter than in the immediately preceding fourth quarter. In addition, the high volume of products typically ordered at the end of each quarter, especially at the end of the fourth quarter, make financial results for a given period difficult to predict.

Due to the Company's Global Presence, Its Business and Operations Could Be Impacted by Local Legal, Economic, Political, Health and Other Conditions: The company is a globally integrated entity, operating in over 175 countries worldwide and deriving about sixty percent of its revenues from sales outside the United States. Changes in the laws or policies of the countries in which the company operates, or inadequate development or enforcement of such laws or policies, could affect the company's business and the company's overall results of operations. Further, the company may be impacted directly or indirectly by the development and enforcement of laws and regulations in the U.S. and globally that are specifically targeted at the technology industry. The company's results of operations also could be affected by economic and political changes in those countries and by macroeconomic changes, including recessions, inflation, currency fluctuations between the U.S. dollar and non-U.S. currencies and adverse changes in trade relationships amongst those countries. Further, as the company expands its customer base and the scope of its offerings, both within the U.S. and globally, it may be impacted by additional regulatory or other risks, including, compliance with U.S. and foreign data privacy requirements, data localization requirements, labor relations laws, enforcement of IP protection laws, laws relating to anti-corruption, anti-competition regulations, and import, export and trade restrictions. Further, international trade disputes could create uncertainty. Tariffs and international trade sanctions resulting from these disputes could affect the company's ability to move goods and services across borders, or could impose added costs to those activities. Measures taken to date by the company to mitigate these impacts could be made less effective should trade sanctions or tariffs change. In addition, any widespread outbreak of an illness, pandemic or other local or global health issue, natural disasters, climate change impacts, or uncertain political climates, international hostilities, or any terrorist activities, could adversely affect customer demand, the company's operations and supply chain, and its ability to source and deliver products and services to its customers.

The Company May Not Meet Its Growth and Productivity Objectives: On an ongoing basis, IBM seeks to drive greater agility, productivity, flexibility and cost savings by continuously transforming with the use of automation, artificial intelligence, agile processes and changes to the ways of working, while also enabling the scaling of resources, offerings and investments through the company's globally integrated model across both emerging and more established markets. These various initiatives may not yield their intended gains in speed, quality, productivity and enablement of rapid scaling, which may impact the company's competitiveness and its ability to meet its growth and productivity objectives.

Ineffective Internal Controls Could Impact the Company's Business and Operating Results: The company's internal control over financial reporting may not prevent or detect misstatements because of its inherent limitations, including the possibility of human error, failure or interruption of information technology systems, the circumvention or overriding of controls, or fraud. Even effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. If the company fails to maintain the adequacy of its internal controls, including any failure to implement required new or improved controls, or if the company experiences difficulties in their implementation, the company's business and operating results could be harmed and the company could fail to meet its financial reporting obligations.

The Company's Use of Accounting Estimates Involves Judgment and Could Impact the Company's Financial Results: The application of accounting principles generally accepted in the U.S. (GAAP) requires the company to make estimates and assumptions about certain items and future events that directly affect its reported financial condition. The company's most critical accounting estimates are described in the

Management Discussion in IBM’s 2022 Annual Report to Stockholders, under “Critical Accounting Estimates.” In addition, as discussed in note R, “Commitments & Contingencies,” in IBM’s 2022 Annual Report to Stockholders, the company makes certain estimates including decisions related to legal proceedings and reserves. These estimates and assumptions involve the use of judgment. As a result, actual financial results may differ.

The Company's Goodwill or Amortizable Intangible Assets May Become Impaired: The company acquires other companies, including the intangible assets of those companies. The company may not realize all the economic benefit from those acquisitions, which could cause an impairment of goodwill or intangible assets. If our goodwill or net intangible assets become impaired, we may be required to record a charge to the Consolidated Income Statement.

The Company Depends on Skilled Employees and Could Be Impacted by a Shortage of Critical Skills: Much of the future success of the company depends on the continued service, availability and integrity of skilled employees, including technical, marketing and staff resources. Skilled and experienced personnel in the areas where the company competes are in high demand, and competition for their talents is intense. Changing demographics and labor work force trends may result in a shortage of or insufficient knowledge and skills. In addition, as global opportunities and industry demand shifts, realignment, training and scaling of skilled resources may not be sufficiently rapid or successful. Further, many of IBM's key employees receive a total compensation package that includes equity awards. Any new regulations, volatility in the stock market and other factors could diminish the company's use or the value of the company's equity awards, putting the company at a competitive disadvantage.

The Company's Business Could Be Impacted by Its Relationships with Critical Suppliers: IBM's business employs a wide variety of components (hardware and software), supplies, services and raw materials from a substantial number of suppliers around the world. Certain of the company's businesses rely on a single or a limited number of suppliers, including for server processor technology for certain semiconductors. Changes in the business condition (financial or otherwise) of these suppliers could subject the company to losses and affect its ability to bring products to market. Further, the failure of the company's suppliers to deliver components, supplies, services and raw materials in sufficient quantities, in a timely or secure manner, and in compliance with all applicable laws and regulations could adversely affect the company's business. In addition, any defective components, supplies or materials, or inadequate services received from suppliers could reduce the reliability of the company's products and services and harm the company's reputation.

Product and Service Quality Issues Could Impact the Company's Business and Operating Results: The company has rigorous quality control standards and processes intended to prevent, detect and correct errors, malfunctions and other defects in its products and services. If errors, malfunctions, defects or disruptions in service are experienced by customers or in the company's operations there could be negative consequences that could impact customers' business operations and harm the company's business's operating results.

The Company Could Be Impacted by Its Business with Government Clients: The company's customers include numerous governmental entities within and outside the U.S., including the U.S. Federal Government and state and local entities. Some of the company's agreements with these customers may be subject to periodic funding approval. Funding reductions or delays could adversely impact public sector demand for our products and services. Also, some agreements may contain provisions allowing the customer to terminate without cause and providing for higher liability limits for certain losses. In addition, the company could be suspended or debarred as a governmental contractor and could incur civil and criminal fines and penalties, which could negatively impact the company's results of operations, financial results and reputation.

The Company's Reliance on Third Party Distribution Channels and Ecosystems Could Impact Its Business: The company offers its products directly and through a variety of third party distributors, resellers, independent software vendors, independent service providers, and other ecosystem partners. Changes in the business condition (financial or otherwise) of these ecosystem partners could subject the company to losses and affect its ability to bring its products to market. As the company moves into new areas, ecosystem partners may be unable to keep up with changes in technology and offerings, and the company may be unable to recruit and enable appropriate partners to achieve anticipated ecosystem growth objectives. In addition, the failure of ecosystem partners to comply with all applicable laws and regulations may prevent the company from working with them and could subject the company to losses and affect its ability to bring products to market.

Risks Related to Cybersecurity and Data Privacy

Cybersecurity and Privacy Considerations Could Impact the Company's Business: There are numerous and evolving risks to cybersecurity and privacy, including risks originating from intentional acts of criminal hackers, hacktivists, nation states and competitors; from intentional and unintentional acts of customers, contractors, business partners, vendors, employees and other third parties; and from errors in processes or technologies, as well as the risks associated with an increase in the number of customers, contractors, business partners, vendors, employees and other third parties working remotely. Computer hackers and others routinely attack the security of technology products, services, systems and networks using a wide variety of methods, including ransomware or other malicious software and attempts to exploit vulnerabilities in hardware, software, and infrastructure. Attacks also include social engineering and cyber extortion to induce customers, contractors, business partners, vendors, employees and other third parties to disclose information, transfer funds, or unwittingly provide access to systems or data. The company is at risk of security breaches not only of our own products, services, systems and networks, but also those of customers, contractors, business partners, vendors, employees and other third parties, particularly as all parties increasingly digitize their operations. Cyber threats are continually evolving, making it difficult to defend against such threats and vulnerabilities that can persist undetected over extended periods of time. The company's products, services, systems and networks, including cloud-based systems and systems and technologies that the company maintains on behalf of its customers, are used in critical company, customer or third-party operations, and involve the storage, processing and transmission of sensitive data, including valuable intellectual property, other proprietary or confidential data, regulated data, and personal information of employees, customers and others. These products, services, systems and networks are also used by customers in heavily regulated industries, including those in the financial services, healthcare, critical infrastructure and government sectors. Successful cybersecurity attacks or other security incidents could result in, for example, one or more of the following: unauthorized access to, disclosure, modification, misuse, loss, or destruction of company, customer, or other third party data or systems; theft or import or export of sensitive, regulated, or confidential data including personal information and intellectual property, including key innovations in artificial intelligence, quantum, or other disruptive technologies; the loss of access to critical data or systems through ransomware, crypto mining, destructive attacks or other means; and business delays, service or system disruptions or denials of service. In the event of such actions, the company, its customers and other third parties could be exposed to liability, litigation, and regulatory or other government action, including debarment, as well as the loss of existing or potential customers, damage to brand and reputation, damage to our competitive position, and other financial loss. In addition, the cost and operational consequences of responding to cybersecurity incidents and implementing remediation measures could be significant. In the company's industry, security vulnerabilities are increasingly discovered, publicized and exploited across a broad range of hardware, software or other infrastructure, elevating the risk of attacks and the potential cost of response and remediation for the company and its customers. In addition, the fast-paced, evolving, pervasive, and sophisticated nature of certain cyber threats and vulnerabilities, as well as the scale and complexity of the business and infrastructure, make it possible that certain threats or vulnerabilities will be undetected or unmitigated in time to prevent or minimize the impact of an attack on the company or its customers. Cybersecurity risk to the company and its customers also depends on factors such as the actions, practices and investments of customers, contractors, business partners, vendors, the open source community and other third parties, including, for example, providing and implementing patches to address vulnerabilities. Cybersecurity attacks or other catastrophic events resulting in disruptions to or failures in power, information technology, communication systems or other critical infrastructure could result in interruptions or delays to company, customer, or other third party operations or services, financial loss, injury or death to persons or property, potential liability, and damage to brand and reputation. Although the company continuously takes significant steps to mitigate cybersecurity risk across a range of functions, such measures can never eliminate the risk entirely or provide absolute security. The company regularly addresses cybersecurity attacks and vulnerabilities with the potential for exploitation, and while the company continues to monitor for, identify, investigate, respond to and remediate such events, there have not been cybersecurity incidents or vulnerabilities that have had a material adverse effect on the company, though there is no assurance that there will not be cybersecurity incidents or vulnerabilities that will have a material adverse effect in the future.

As a global enterprise, the regulatory environment with regard to cybersecurity, privacy and data protection issues is increasingly complex and will continue to impact the company’s business, including through increased risk, increased costs, and expanded or otherwise altered compliance obligations, including with respect to the increased regulatory activity around the security of critical infrastructure, IoT devices, customer industries (e.g., financial services) and various customer and government supply chain security programs. As the reliance on data grows for the company and our clients, the potential impact of regulations on the company's business, risks, and reputation will grow accordingly. The enactment and expansion of cybersecurity, data protection and privacy laws, regulations and standards around the globe will continue to result in increased compliance costs, including due to an increased focus on international data transfer mechanisms and data location; increased cybersecurity requirements and reporting obligations; the lack of harmonization of such laws and regulations; the increase in associated litigation and enforcement activity by governments and private parties; the potential for damages, fines and penalties and debarment; and the potential regulation of new and emerging technologies such as artificial intelligence. Any additional costs and penalties associated with increased compliance, enforcement, and risk reduction could make certain offerings less profitable or increase the difficulty of bringing certain offerings to market or maintaining certain offerings.

Risks Related to Laws and Regulations

The Company Could Incur Substantial Costs Related to Climate Change and Other Environmental Matters: IBM, like other companies, is subject to potential climate-related risks and costs such as those resulting from increased severe weather events, prolonged changes in temperature, new regulations affecting hardware products and data centers, carbon taxes, and increased environmental disclosures requested or required by clients, regulators and others. The company is also subject to various federal, state, local and foreign laws and regulations concerning the discharge of materials into the environment or otherwise related to environmental protection, including the U.S. Superfund law. The company could incur substantial costs, including cleanup costs, fines and civil or criminal sanctions, as well as third-party claims for property damage or personal injury, if it were to violate or become liable under environmental laws and regulations. We do not expect climate change or compliance with environmental laws and regulations focused on climate change to have a disproportionate effect on the company or its financial position, results of operations and competitive position.

Tax Matters Could Impact the Company's Results of Operations and Financial Condition: The company is subject to income taxes in both the United States and numerous foreign jurisdictions. IBM's provision for income taxes and cash tax liability in the future could be adversely affected by numerous factors including, but not limited to, income before taxes being lower than anticipated in countries with lower statutory tax rates and higher than anticipated in countries with higher statutory tax rates, changes in the valuation of deferred tax assets and liabilities, and changes in tax laws, regulations, accounting principles or interpretations thereof, which could adversely impact the company's results of operations and financial condition in future periods. The Organization for Economic Cooperation and Development (OECD) is issuing guidelines that are different, in some respects, than long-standing international tax principles. As countries unilaterally amend their tax laws to adopt certain parts of the OECD guidelines, this may increase tax uncertainty and may adversely impact the company's income taxes. Local country, state, provincial or municipal taxation may also be subject to review and potential override by regional, federal, national or similar forms of government. In addition, IBM is subject to the continuous examination of its income tax returns by the United States Internal Revenue Service and other tax authorities around the world. The company regularly assesses the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of its provision for income taxes. There can be no assurance that the outcomes from these examinations will not have an adverse effect on the company's provision for income taxes and cash tax liability.

The Company Is Subject to Legal Proceedings and Investigatory Risks: As a company with a substantial employee population and with clients in more than 175 countries, IBM is or may become involved as a party and/or may be subject to a variety of claims, demands, suits, investigations, tax matters and other proceedings that arise from time to time in the ordinary course of its business. The risks associated with such legal proceedings are described in more detail in note R, "Commitments & Contingencies," in IBM's 2022 Annual Report to Stockholders. The company believes it has adopted appropriate risk management and compliance programs. Legal and compliance risks, however, will continue to exist and additional legal proceedings and other contingencies, the outcome of which cannot be predicted with certainty, may arise from time to time.

Risks Related to Financing and Capital Markets Activities

The Company's Results of Operations and Financial Condition Could Be Negatively Impacted by Its U.S. and non-U.S. Pension Plans: Adverse financial market conditions and volatility in the credit markets may have an unfavorable impact on the value of the company's pension trust assets and its future estimated pension liabilities. As a result, the company's financial results in any period could be negatively impacted. In addition, in a period of an extended financial market downturn, the company could be required to provide incremental pension plan funding with resulting liquidity risk which could negatively impact the company's financial flexibility. Further, the company's results could be negatively impacted by premiums for mandatory pension insolvency insurance coverage outside the United States. Premium increases could be significant due to the level of insolvencies of unrelated companies in the country at issue. IBM's 2022 Annual Report to Stockholders includes information about potential impacts from pension funding and the use of certain assumptions regarding pension matters.

The Company Is Exposed to Currency and Financing Risks That Could Impact Its Revenue and Business: The company derives a significant percentage of its revenues and costs from its affiliates operating in local currency environments, and those results are affected by changes in the relative values of non-U.S. currencies and the U.S. dollar, as well as sudden shifts in regional or global economic activity. Further, inherent in the company's financing business are risks related to the concentration of credit, client creditworthiness, interest rate and currency fluctuations on the associated debt and liabilities and the determination of residual values. The company employs a number of strategies to manage these risks, including the use of derivative financial instruments, which involve the risk of non-performance by the counterparty. In addition, there can be no assurance that the company's efforts to manage its currency and financing risks will be successful.

The Company's Financial Performance Could Be Impacted by Changes in Market Liquidity Conditions and by Customer Credit Risk on Receivables: The company's financial performance is exposed to a wide variety of industry sector dynamics worldwide, including sudden shifts in regional or global economic activity. The company's earnings and cash flows, as well as its access to funding, could be negatively impacted by changes in market liquidity conditions. IBM's 2022 Annual Report to Stockholders includes information about the company's liquidity position. The company's client base includes many enterprises worldwide, from small and medium businesses to the world's largest organizations and governments, with a significant portion of the company's revenue coming from global clients across many sectors. Most of the company's sales are on an open credit basis, and the company performs ongoing credit evaluations of its clients' financial conditions. If the company becomes aware of information related to the creditworthiness of a major customer, or if future actual default rates on receivables in general differ from those currently anticipated, the company may have to adjust its allowance for credit losses, which could affect the company's consolidated net income in the period the adjustments are made.

Risks Related to the Spin-Off of Kyndryl Holdings, Inc.

If the Kyndryl Holdings, Inc. Spin-off Fails to Qualify for Tax-free Treatment, It Could Result in Substantial Tax Liability for the Company and Its Stockholders: In connection with the spin-off of Kyndryl Holdings, Inc., the company obtained a private letter ruling from the IRS and an opinion from its tax advisor, in each case to the effect that, for U.S. federal income tax purposes, the spin-off will qualify as a tax-free reorganization under sections 368(a)(1)(D) and 355 of the Internal Revenue Code of 1986, as amended. The IRS private letter ruling and the opinion rely on certain facts, assumptions, representations and undertakings from Kyndryl Holdings, Inc. and the company regarding the past and future conduct of the companies' respective businesses and other matters. If any of these facts, assumptions, representations, or undertakings are incorrect or not satisfied, the conclusions reached in the IRS private letter ruling and/or the opinion could be jeopardized. If the spin-off is determined to be taxable for U.S. federal income tax purposes, the company's stockholders that are subject to U.S. federal income tax and the company could incur significant U.S. federal income tax liabilities.

Risks Related to Ownership of IBM Securities

Risk Factors Related to IBM Securities: The company and its subsidiaries issue debt securities in the worldwide capital markets from time to time, with a variety of different maturities and in different currencies. The value of the company's debt securities fluctuates based on many factors, including the methods employed for calculating principal and interest, the maturity of the securities, the aggregate principal amount of securities outstanding, the redemption features for the securities, the level, direction and volatility of interest rates, changes in exchange rates, exchange controls, governmental and stock exchange regulations and other factors over which the company has little or no control. The company's ability to pay interest and repay the principal for its debt securities is dependent upon its ability to manage its business operations, as well as the other risks described under this Item 1A. entitled "Risk Factors." There can be no assurance that the company will be able to manage any of these risks successfully.

The company also issues its common stock from time to time in connection with various compensation plans, contributions to its pension plan and certain acquisitions. The market price of IBM common stock is subject to significant volatility, due to other factors described under this Item 1A. entitled "Risk Factors," as well as economic and geopolitical conditions generally, trading volumes, speculation by the press or investment community about the company's financial condition, and other factors, many of which are beyond the company's control. Since the market price of IBM's common stock fluctuates significantly, stockholders may not be able to sell the company's stock at attractive prices.

In addition, changes by any rating agency to the company's outlook or credit ratings can negatively impact the value and liquidity of both the company's debt and equity securities. The company does not make a market in either its debt or equity securities and cannot provide any assurances with respect to the liquidity or value of such securities.

Item 1B. Unresolved Staff Comments:

Not applicable.

Item 2. Properties:

IBM's corporate headquarters are located at an owned site in Armonk, New York. As of December 31, 2022, in aggregate, we owned or leased facilities for current use consisting of approximately 47 million square feet worldwide.

At December 31, 2022, IBM's facilities in the U.S. had aggregate floor space of approximately 18 million square feet, of which approximately 9 million was owned and 9 million was leased. Outside the U.S., facilities totaled approximately 29 million square feet, of which 6 million was owned and 23 million was leased. This space is primarily used for sales and distribution, manufacturing and development, data processing services including the company's cloud centers, research and other administrative and general support purposes. Our facilities are utilized for current operations of all business segments.

Continuous maintenance and upgrading of facilities are essential to maintain technological leadership, improve productivity and meet customer demand. We believe that in all material respects our properties have been satisfactorily maintained, are in good condition and are suitable for our operations.

Item 3. Legal Proceedings:

Refer to note R, "Commitments & Contingencies," on pages 96 to 98 of IBM's 2022 Annual Report to Stockholders, which is incorporated herein by reference.

Item 4. Mine Safety Disclosures:

Not applicable.

PART II

Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities:

Refer to page 122 of IBM's 2022 Annual Report to Stockholders, which is incorporated herein by reference solely as it relates to this item.

IBM common stock is listed on the New York Stock Exchange and the NYSE Chicago under the symbol "IBM." There were 380,977 common stockholders of record at February 10, 2023.

The following table provides information relating to the company's repurchase of common stock for the fourth quarter of 2022.

	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Program	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program*
October 1, 2022— October 31, 2022	—	$ —	—	$2,007,611,768
November 1, 2022— November 30, 2022	—	$ —	—	$2,007,611,768
December 1, 2022— December 31, 2022	—	$ —	—	$2,007,611,768
Total	—	$ —	—	

* On October 30, 2018, the Board of Directors authorized $4.0 billion in funds for use in the company's common stock repurchase program. The company stated that it would repurchase shares on the open market or in private transactions depending on market conditions. The common stock repurchase program does not have an expiration date. This table does not include shares tendered to satisfy the exercise price in connection with cashless exercises of employee stock options or shares tendered to satisfy tax withholding obligations in connection with employee equity awards.

The company suspended its share repurchase program at the time of the Red Hat acquisition in 2019. At December 31, 2022 there was approximately $2.0 billion in authorized funds remaining for purchases under this program.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations:

Refer to pages 6 through 42 of IBM's 2022 Annual Report to Stockholders, which are incorporated herein by reference.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk:

Refer to the section titled “Market Risk” on pages 39 and 40 of IBM’s 2022 Annual Report to Stockholders, which is incorporated herein by reference.

Item 8. Financial Statements and Supplementary Data:

Refer to pages 46 through 120 of IBM’s 2022 Annual Report to Stockholders, which are incorporated herein by reference. Also refer to the Financial Statement Schedule on page S-1 of this Form 10-K.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure:

Not applicable.

Item 9A. Controls and Procedures:

The company’s management evaluated, with the participation of the Chief Executive Officer and Chief Financial Officer, the effectiveness of the company’s disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that the company’s disclosure controls and procedures were effective as of the end of the period covered by this report.

Refer to “Report of Management” and “Report of Independent Registered Public Accounting Firm” on pages 43 through 45 of IBM’s 2022 Annual Report to Stockholders, which are incorporated herein by reference. There has been no change in the company’s internal control over financial reporting that occurred during the fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the company’s internal control over financial reporting.

Item 9B. Other Information:

Not applicable.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections:

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance:

Refer to the information under the captions "Election of Directors for a Term of One Year," "Governance and the Board—Committees of the Board," "Governance and the Board—Delinquent Section 16(a) Reports: None," "Governance and the Board—Corporate Governance" and "Frequently Asked Questions—How do I submit an item of business for the 2024 Annual Meeting?" in IBM's definitive Proxy Statement to be filed with the SEC and delivered to stockholders in connection with the Annual Meeting of Stockholders to be held April 25, 2023, all of which information is incorporated herein by reference. Also refer to Item 1 of this Form 10-K under the caption "Information About Our Executive Officers (at February 28, 2023)" on page 3 for additional information on the company's executive officers.

Item 11. Executive Compensation:

Refer to the information under the captions "2022 Summary Compensation Table and Related Narrative," "2022 Summary Compensation Table," "2022 Compensation Discussion and Analysis," "2022 Grants of Plan-Based Awards Table," "2022 Outstanding Equity Awards at Fiscal Year-End Table," "2022 Option Exercises and Stock Vested Table," "2022 Retention Plan Table," "2022 Pension Benefits Narrative," "2022 Pension Benefits Table," "2022 Nonqualified Deferred Compensation Narrative," "2022 Nonqualified Deferred Compensation Table," "2022 Potential Payments Upon Termination Narrative," "2022 Potential Payments Upon Termination Table," "Governance and the Board—Compensation Committee Interlocks and Insider Participation: None," "Compensation Program as It Relates to Risk," "2022 Executive Compensation—Report of the Executive Compensation and Management Resources Committee of the Board of Directors," and "Pay Ratio" in IBM's definitive Proxy Statement to be filed with the SEC and delivered to stockholders in connection with the Annual Meeting of Stockholders to be held April 25, 2023, all of which information is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters:

Refer to the information under the captions "Ownership of Securities—Security Ownership of Certain Beneficial Owners" and "Ownership of Securities—Common Stock and Stock-based Holdings of Directors and Executive Officers" in IBM's definitive Proxy Statement to be filed with the SEC and delivered to stockholders in connection with the Annual Meeting of Stockholders to be held April 25, 2023, all of which information is incorporated herein by reference.

EQUITY COMPENSATION PLAN INFORMATION

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights(1) (a)	Weighted-average exercise price of outstanding options, warrants and rights(1) (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column(a)) (c)
Equity compensation plans approved by security holders			
Options	6,021,727	$ 127.59	—
RSUs	18,901,563	N/A	—
PSUs	5,515,995 (2)	N/A	—
Subtotal	30,439,285	$ 127.59	50,674,904
Equity compensation plans not approved by security holders			
Options	252,798	$ 124.94	—
RSUs	2,151,351	N/A	—
PSUs	571,354 (2)	N/A	—
DCEAP shares	162,627	N/A	—
Subtotal	3,138,130	$ 124.94	14,033,559
Total	33,577,415	$ 127.50	64,708,463

N/A is not applicable
RSUs = Restricted Stock Units, including Retention Restricted Stock Units
PSUs = Performance Share Units
DCEAP Shares = Promised Fee Shares under the DCEAP (see plan description below)

(1) In connection with 14 acquisition transactions, 363,264 additional share based awards, consisting of stock options, were outstanding at December 31, 2022 as a result of the Company's assumption of awards granted by the acquired entities. The weighted-average exercise price of these awards was $19.77. The Company has not made, and will not make, any further grants or awards of equity securities under the plans of these acquired companies.

(2) The numbers included for PSUs in column (a) above reflect the maximum number payout. Assuming target number payout, the number of securities to be issued upon exercise of PSUs for equity compensation plans approved by security holders is 3,244,703 and for equity compensation plans not approved by security holders is 321,375. For additional information about PSUs, including payout calculations, refer to the information under "2022 Summary Compensation Table and Related Narrative" in IBM's definitive Proxy Statement to be filed with the SEC and delivered to stockholders in connection with the Annual Meeting of Stockholders to be held April 25, 2023.

The material features of each equity compensation plan under which equity securities are authorized for issuance that was adopted without stockholder approval are described below:

2001 Long-Term Performance Plan (the "2001 Plan")

The 2001 Plan has been used to fund awards for employees other than senior executives of the Company. Awards for senior executives of the Company have been and will continue to be funded from the stockholder-approved 1999 Long-Term Performance Plan (the "1999 Plan"); the 1999 Plan is also used to fund awards for employees other than senior executives, otherwise, the provisions of the 2001 Plan are identical to the 1999 Plan, including the type of awards that may be granted under the plan (stock options, restricted stock and unit awards and long-term performance incentive awards).

The 2001 Plan is administered by the Executive Compensation and Management Resources Committee of the Board of Directors (the ''Committee''), and that Committee may delegate to officers of the company certain of its duties, powers and authority. Payment of awards may be made in the form of cash, stock or combinations thereof and may be deferred with Committee approval. Awards are not transferable or assignable except (i) by law, will or the laws of descent and distribution, (ii) as a result of the disability of the recipient, or (iii) with the approval of the Committee.

If the employment of a participant terminates, other than as a result of the death or disability of a participant, all unexercised, deferred and unpaid awards shall be canceled immediately, unless the award agreement provides otherwise. In the event of the death of a participant or in the event a participant is deemed by the company to be disabled and eligible for benefits under the terms of the IBM Long-Term Disability Plan (or any successor plan or similar plan of another employer), the participant's estate, beneficiaries or representative, as the case may be, shall have the rights and duties of the participant under the applicable award agreement. In addition, unless the award agreement specifies otherwise, the Committee may cancel, rescind, suspend, withhold or otherwise limit or restrict any unexpired, unpaid, or deferred award at any time if the participant is not in compliance with all applicable provisions of the awards agreement and the 2001 Plan. In addition, awards may be cancelled if the participant engages in any conduct or act determined to be injurious, detrimental or prejudicial to any interest of the company.

PWCC Acquisition Long-Term Performance Plan (the "PWCC Plan")

The PWCC Plan was adopted by the Board of Directors in connection with the company's acquisition of PricewaterhouseCoopers Consulting (''PwCC'') from PricewaterhouseCoopers LLP, as announced on October 1, 2002. The PWCC Plan has been and will continue to be used solely to fund awards for employees of PwCC who have become employed by the company as a result of the acquisition. Awards for senior executives of the company will not be funded from the PWCC Plan. The terms and conditions of the PWCC Plan are substantively identical to the terms and conditions of the 2001 Plan, described above.

IBM Red Hat Acquisition Long-Term Performance Plan (the "Red Hat Plan")

The Red Hat Plan was adopted by the Board of Directors in connection with the company's acquisition of Red Hat, Inc. on July 9, 2019. The Red Hat Plan was used solely to fund awards for employees who were not employed by IBM immediately prior to the closing of the acquisition. Awards for senior executives of the company will not be funded from the Red Hat Plan. The terms and conditions of the Red Hat Plan are substantively identical to the terms and conditions of the 2001 Plan, described above.

Amended and Restated Deferred Compensation and Equity Award Plan (the "DCEAP")

The DCEAP was adopted in 1993 and amended and restated effective January 1, 2014. Under the Amended and Restated DCEAP, non-management directors receive Promised Fee Shares in connection with deferred annual retainer payments. Each Promised Fee Share is equal in value to one share of the company's common stock. Upon a director's retirement or other completion of service as a director, amounts deferred into Promised Fee Shares are payable in either cash and/or shares of the company's stock either as lump sum or installments pursuant to the director's distribution election. For additional information about the DCEAP, see ''2022 Director Compensation Narrative'' in IBM's definitive Proxy Statement to be filed with the SEC and delivered to stockholders in connection with the Annual Meeting of Stockholders to be held April 25, 2023.

Item 13. Certain Relationships and Related Transactions, and Director Independence:

Refer to the information under the captions "IBM Board of Directors," "Governance and the Board—Committees of the Board," "Governance and the Board—Certain Transactions and Relationships" and "Governance and the Board—Corporate Governance—Independent Board" in IBM's definitive Proxy

Statement to be filed with the SEC and delivered to stockholders in connection with the Annual Meeting of Stockholders to be held April 25, 2023, all of which information is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services:

Refer to the information under the captions “Report of the Audit Committee of the Board of Directors” and “Audit and Non-Audit Fees” in IBM’s definitive Proxy Statement to be filed with the SEC and delivered to stockholders in connection with the Annual Meeting of Stockholders to be held April 25, 2023, all of which information is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules:

(a) The following documents are filed as part of this report:

1. Financial statements from IBM's 2022 Annual Report to Stockholders, which are incorporated herein by reference:

   Report of Independent Registered Public Accounting Firm – PCAOB Firm ID 238 (pages 44 through 45).

   Consolidated Income Statement for the years ended December 31, 2022, 2021 and 2020 (page 46).

   Consolidated Statement of Comprehensive Income for the years ended December 31, 2022, 2021 and 2020 (page 47).

   Consolidated Balance Sheet at December 31, 2022 and 2021 (page 48).

   Consolidated Statement of Cash Flows for the years ended December 31, 2022, 2021 and 2020 (page 49).

   Consolidated Statement of Equity at December 31, 2022, 2021 and 2020 (pages 50 and 51).

   Notes to Consolidated Financial Statements (pages 52 through 120).

2. Financial statement schedule required to be filed by Item 8 of this Form:

Page	Schedule Number	
		Report of Independent Registered Public Accounting Firm on Financial Statement Schedule.
S-1	II	Valuation and Qualifying Accounts and Reserves for the years ended December 31, 2022, 2021, and 2020.

All other schedules are omitted as the required matter is not present, the amounts are not significant or the information is shown in the Consolidated Financial Statements or the notes thereto.

3. Exhibits:

Reference Number per Item 601 of Regulation S-K	Description of Exhibits	Exhibit Number in this Form 10-K
(3)	Certificate of Incorporation and By-laws	
	The Certificate of Incorporation of IBM, is Exhibit 3.1 to Form 10-K, filed February 22, 2022, and is hereby incorporated by reference.	
	The By-Laws of IBM, as amended through April 26, 2022, is Exhibit 3.2 to Form 10-Q, filed April 26, 2022, and is hereby incorporated by reference.	
(4)	Instruments defining the rights of security holders	
	The instruments defining the rights of the holders of the 7.00% Debentures due 2025 and the 7.00% Debentures due 2045 are Exhibits 2 and 3, respectively, to Form 8-K, filed on October 30, 1995, and are hereby incorporated by reference.	

The instrument defining the rights of the holders of the 7.125% Debentures due 2096 is Exhibit 4.2 to Form 8-K/A, filed on December 6, 1996, and is hereby incorporated by reference.

Reference Number per Item 601 of Regulation S-K	Description of Exhibits	Exhibit Number in this Form 10-K
	The instrument defining the rights of the holders of the 6.22% Debentures due 2027 is Exhibit 3 to Form 8-K, filed on August 1, 1997, and is hereby incorporated by reference.	
	The instrument defining the rights of the holders of the 6.50% Debentures due 2028 is Exhibit 2 to Form 8-K, filed on January 8, 1998, and is hereby incorporated by reference.	
	The instrument defining the rights of the holders of the 5.875% Debentures due 2032 is Exhibit 3 to Form 8 K, filed on November 26, 2002, and is hereby incorporated by reference.	
	The instrument defining the rights of the holders of the 3.375% Notes due 2023 is Exhibit 2 to Form 8-K, filed July 31, 2013, and is hereby incorporated by reference.	
	The instrument defining the rights of the holders of the 2.875% Notes due 2025 is Exhibit 3 to Form 8-K, filed November 6, 2013, and are hereby incorporated by reference.	
	The instrument defining the rights of the holders of the 3.625% Notes due 2024 is Exhibit 5 to Form 8-K, filed February 11, 2014, and is hereby incorporated by reference.	
	The instrument defining the rights of the holders of the 1.250% Notes due 2023 is Exhibit 2 to Form 8-K, filed November 25, 2014, and is hereby incorporated by reference.	
	The instruments defining the rights of the holders of the 3.450% Notes due 2026 and the 4.700% Notes due 2046 are Exhibits 4.4 and 4.5 to Form 8-K, filed February 18, 2016, and are hereby incorporated by reference.	
	The instruments defining the rights of the holders of the 1.125% Notes due 2024 and the 1.750% Notes due 2028 are Exhibits 4.2 and 4.3 to Form 8-K, filed March 4, 2016, and are hereby incorporated by reference.	
	The instrument defining the rights of the holders of the 0.300% Notes due 2026 is Exhibit 4 to Form 8-K, filed November 1, 2016, and is hereby incorporated by reference.	
	The instruments defining the rights of the holders of the 3.300% Notes due 2027 is Exhibit 4.4 to Form 8-K, filed January 26, 2017, and are hereby incorporated by reference.	
	The instruments defining the rights of the holders of the 0.950% Notes due 2025, and the 1.500% Notes due 2029 are Exhibits 4.1 and 4.2 to Form 8-K, filed May 22, 2017, and are hereby incorporated by reference.	
	The instruments defining the rights of the holders of the 0.875% Notes due 2025, the 1.250% Notes due 2027 and the 1.750% Notes due 2031 are Exhibits 4.2, 4.3 and 4.4 to Form 8-K, filed January 30, 2019, and are hereby incorporated by reference.	
	The instruments defining the rights of the holders of the 3.000% Notes due 2024, the 3.300% Notes due 2026, the 3.500% Notes due 2029, the 4.150% Notes due 2039 and the 4.250% Notes due 2049 are	

Exhibits 4.4, 4.5, 4.6, 4.7 and 4.8 to Form 8-K, filed May 14, 2019, and are hereby incorporated by reference.

Reference Number per Item 601 of Regulation S-K	Description of Exhibits	Exhibit Number in this Form 10-K
	The instruments defining the rights of the holders of the 0.300% Notes due 2028, the 0.650% Notes due 2032 and the 1.200% Notes due 2040 are Exhibits 4.1, 4.2 and 4.3 to Form 8-K, filed February 10, 2020, and are hereby incorporated by reference.	
	The instruments defining the rights of the holders of the 1.700% Notes due 2027, the 1.950% Notes due 2030, the 2.850% Notes due 2040 and the 2.950% Notes due 2050 are Exhibits 4.1, 4.2, 4.3 and 4.4 to Form 8-K, filed May 6, 2020, and are hereby incorporated by reference.	
	The instruments defining the rights of the holders of the 0.875% Notes due 2030, the 1.250% Notes due 2034, the 2.200% Notes due 2027, the 2.720% Notes due 2032 and the 3.430% Notes due 2052 are Exhibits 4.1, 4.2, 4.3, 4.4 and 4.5 to Form 8-K, filed February 8, 2022, and are hereby incorporated by reference.	
	The instruments defining the rights of the holders of the 4.000% Notes due 2025, the 4.150% Notes due 2027, the 4.400% Notes due 2032 and the 4.900% Notes due 2052 are Exhibits 4.1, 4.2, 4.3 and 4.4 to Form 8-K, filed July 26, 2022, and are hereby incorporated by reference.	
	The instruments defining the rights of the holders of the 3.375% Notes due 2027, the 3.625% Notes due 2031, the 3.750% Notes due 2035, the 4.000% Notes due 2043, the 4.875% Notes due 2038, the 4.500% Notes due 2026, the 4.500% Notes due 2028, the 4.750% Notes due 2033 and the 5.100% Notes due 2053 are Exhibits 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8 and 4.9 to Form 8-K, filed February 3, 2023, and are hereby incorporated by reference.	
	Indenture dated as of October 1, 1993 between IBM and The Bank of New York Mellon, (as successor to The Chase Manhattan Bank (National Association)) as Trustee, is Exhibit 4.1 to Form 10-Q for the quarter ended September 30, 2017, and is hereby incorporated by reference.	
	First Supplemental Indenture to Indenture dated as of October 1, 1993 between IBM and The Bank of New York Mellon, (as successor to The Chase Manhattan Bank (National Association)) as Trustee, dated as of December 15, 1995, is Exhibit 4.2 to Form 10-Q for the quarter ended September 30, 2017, and is hereby incorporated by reference.	
	Description of Securities Registered under Section 12 of the Exchange Act.	4.1
(10)	Material contracts	
	The IBM 2001 Long-Term Performance Plan, a compensatory plan, contained in Registration Statement No. 333-87708 on Form S-8, as such amended plan was filed as Exhibit 10.1 to Form 10-Q for the quarter ended September 30, 2007, is hereby incorporated by reference.*	
	The IBM PWCC Acquisition Long-Term Performance Plan, a compensatory plan, contained in Registration Statement No. 333-102872 on Form S-8, as such amended plan was filed as Exhibit 10.2 to Form 10-Q for the quarter ended September 30, 2007, is hereby incorporated by reference.*	

The IBM Red Hat Acquisition Long-Term Performance Plan, a compensatory plan, contained in Registration Statement No. 333-232585 of Form S-8, as such amended plan was filed as Exhibit 4.8 to Form S-8 POS, filed on December 18, 2020, is hereby incorporated by reference.*

Reference Number per Item 601 of Regulation S-K	Description of Exhibits	Exhibit Number in this Form 10-K
	The IBM 1999 Long-Term Performance Plan, a compensatory plan, contained in Registration Statement No. 333-30424 on Form S-8, as such amended plan was filed as Exhibit 10.3 to Form 10-Q for the quarter ended September 30, 2007, is hereby incorporated by reference.*	
	The IBM 1997 Long-Term Performance Plan, a compensatory plan, contained in Registration Statement No. 333-31305 on Form S-8, as such amended plan was filed as Exhibit 10.4 to Form 10-Q for the quarter ended September 30, 2007, is hereby incorporated by reference.*	
	The VMTurbo, Inc. Amended and Restated 2008 Stock Plan, a compensatory plan, contained in Registration Statement No. 333-259965 on Form S-8, as such amended and restated plan was filed as Exhibit 4.3 to Form S-8, filed on October 1, 2021, is hereby incorporated by reference.*	
	Form of LTPP equity award agreement for performance share units and Terms and Conditions of LTPP Equity Awards, effective June 1, 2018, in connection with the foregoing award agreements, filed as Exhibit 10.1 to Form 10-Q for the quarter ended March 31, 2018, is hereby incorporated by reference.*	
	Forms of LTPP equity award agreements for (i) stock options, restricted stock, restricted stock units, cash-settled restricted stock units, SARS, (ii) performance share units and (iii) retention restricted stock unit awards as well as the Terms and Conditions of LTPP Equity Awards, effective August 15, 2018, in connection with the foregoing award agreements, filed as Exhibit 10.1 to Form 10-Q for the quarter ended June 30, 2018, are hereby incorporated by reference.*	
	Forms of equity award agreements for (i) stock options, restricted stock, restricted stock units, cash-settled restricted stock units, SARS, (ii) performance share units and (iii) retention restricted stock unit awards as well as the Terms and Conditions of LTPP Equity Awards, effective October 1, 2018, in connection with the foregoing award agreements, filed as Exhibit 10.1 to Form 10-Q for the quarter ended September 30, 2018 are hereby incorporated by reference.*	
	Terms and Conditions of LTPP equity award agreements was filed as Exhibit 10.2 to Form 10-Q for the quarter ended March 31, 2019, and is hereby incorporated by reference.*	
	Forms of equity award agreements for stock options, restricted stock, restricted stock units, cash-settled restricted stock units and SARS, as well as the Terms and Conditions of LTPP Equity Awards, effective July 15, 2019, in connection with the foregoing award agreements, filed as Exhibit 10.1 to Form 10-Q for the quarter ended June 30, 2019, are hereby incorporated by reference.*	
	Forms of LTPP equity award agreements for (i) stock options, restricted stock, restricted stock units, cash-settled restricted stock units, SARS, and (ii) performance share units, as well as the Terms and Conditions of LTPP Equity Awards, effective October 1, 2019, in connection with the foregoing award agreements, filed as Exhibit 10.1 to Form 10-Q for the quarter ended September 30, 2019, are hereby incorporated by reference.*	

Reference Number per Item 601 of Regulation S-K	Description of Exhibits	Exhibit Number in this Form 10-K
	Form of LTPP equity award agreement for performance share units and the terms and conditions of LTPP Equity Awards, effective December 17, 2019, in connection with the foregoing award agreements, filed as Exhibit 10.1 to Form 10-K for the year ended December 31, 2019, are hereby incorporated by reference.*	
	Form of LTPP equity award agreement for performance share units and the terms and conditions of LTPP Equity Awards, effective March 2, 2020, in connection with the foregoing award agreements, filed as Exhibit 10.1 to Form 10-Q for the quarter ended March 31, 2020, are hereby incorporated by reference.*	
	Terms and Conditions of IBM LTPP Equity Awards, effective June 1, 2020, filed as Exhibit 10.1 to Form 10-Q for the quarter ended June 30, 2020, are hereby incorporated by reference.*	
	Form of LTPP equity award agreement for performance share unites, effective, January 1, 2021, filed as Exhibit 10.1 to Form 10-Q for the quarter ended March 1, 2021, is hereby incorporated by reference.*	
	Forms of LTPP equity award agreements for (i) stock options, restricted stock, restricted stock units, cash-settled restricted stock units, SARS, (ii) performance share units and (iii) retention restricted stock unit awards, effective June 1, 2021, filed as Exhibit 10.1 to the Form 10-Q for the quarter ended June 30, 2021, are hereby incorporated by reference.*	
	Forms of LTPP equity award agreements for (i) stock options, restricted stock, restricted stock units, cash-settled restricted stock units, SARS, and (ii) performance share units, as well as the Terms and Conditions of LTPP Equity Awards, effective January 1, 2022, in connection with the foregoing award agreements, filed as Exhibit 10.1 to Form 10-K for the year ended December 31, 2021, are hereby incorporated by reference.*	
	Forms of LTPP equity award agreements for (i) stock options, restricted stock, restricted stock units, cash-settled restricted stock units, SARS, and (ii) performance share units, as well as the Terms and Conditions of LTPP Equity Awards, effective February 1, 2023, in connection with the foregoing award agreements.*	10.1
	Board of Directors compensatory plans, as described under the caption “Governance of the Board—2022 Director Compensation” in IBM’s definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to stockholders in connection with the Annual Meeting of Stockholders to be held April 25, 2023, are hereby incorporated by reference.*	
	The IBM Non-Employee Directors Stock Option Plan, contained in Registration Statement 33-60227 on Form S-8, is hereby incorporated by reference.*	
	The IBM Board of Directors Amended and Restated Deferred Compensation and Equity Award Plan, a compensatory plan, as amended and restated effective January 1, 2014, which was filed as Exhibit 10.1 to Form 10-K for the year ended December 31, 2013, and is hereby incorporated by reference.*	

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Reference Number per Item 601 of Regulation S-K	Description of Exhibits	Exhibit Number in this Form 10-K
	Amendment No. 1 to the Amended and Restated Deferred Compensation and Equity Award Plan, effective January 30, 2018, which was filed as Exhibit 10.1 to Form 10-K for the year ended December 31, 2017, is hereby incorporated by reference.*	
	Amendment No. 2 to the Amended and Restated Deferred Compensation and Equity Award Plan, effective December 13, 2022.*	10.2
	The IBM Supplemental Executive Retention Plan, a compensatory plan, as amended and restated through December 31, 2008, which was filed as Exhibit 10.2 to Form 10-K for the year ended December 31, 2008, is hereby incorporated by reference.*	
	Amendment No. 1 to the IBM Supplemental Executive Retention Plan, a compensatory plan, effective December 9, 2014, which was filed as Exhibit 10.1 to Form 10-K for the year ended December 31, 2014, and is hereby incorporated by reference.*	
	The IBM Excess 401(k) Plus Plan, a compensatory plan (formerly the IBM Executive Deferred Compensation Plan), as amended and restated through January 1, 2023.*	10.3
	The IBM 2003 Employees Stock Purchase Plan, contained in Registration Statement 333-104806 on Form S-8, as amended through April 1, 2005, which was filed as Exhibit 10.3 to Form 10-Q for the quarter ended March 31, 2005, is hereby incorporated by reference.*	
	Form of Noncompetition Agreement, filed as Exhibit 10.2 to Form 10-Q for the quarter ended March 31, 2009, is hereby incorporated by reference.*	
	Form of Noncompetition Agreement, filed as Exhibit 10.1 to Form 10-Q for the quarter ended March 31, 2012, is hereby incorporated by reference.*	
	Form of Noncompetition Agreement, filed as Exhibit 10.2 to Form 10-K for the year ended December 31, 2015, is hereby incorporated by reference.*	
	Form of Noncompetition Agreement, filed as Exhibit 10.3 to Form 10-Q for the quarter ended June 30, 2016, is hereby incorporated by reference.*	
	Form of Noncompetition Agreement, filed as Exhibit 10.1 to Form 10-K for the year ended December 31, 2016, is hereby incorporated by reference.*	
	Form of Noncompetition Agreement, filed as Exhibit 10.3 to Form 10-K for the year ended December 31, 2017, is hereby incorporated by reference.*	
	Form of Noncompetition Agreement, filed as Exhibit 10.2 to Form 10-Q for the quarter ended September 30, 2018, is hereby incorporated by reference.*	
	Form of Noncompetition Agreement, filed as Exhibit 10.2 to Form 10-K for the year ended December 31, 2019, is hereby incorporated by reference.*	

Form of Noncompetition Agreement, filed as Exhibit 10.2 to Form 10-K for the year ended December 31, 2020, is hereby incorporated by reference.*	
Form of Noncompetition Agreement, filed as Exhibit 10.2 to Form 10-K for the year ended December 31, 2021, is hereby incorporated by reference.*	
Form of Noncompetition Agreement.*	10.4

Reference Number per Item 601 of Regulation S-K	Description of Exhibits	Exhibit Number in this Form 10-K
	Letter dated December 15, 2020, signed by Virginia M. Rometty and IBM was included as Exhibit 99.2 to the Form 8-K filed December 16, 2020, and is hereby incorporated by reference.*	
	Letter Agreement, signed by Gary Cohn and IBM, dated December 24, 2020, filed as Exhibit 10.3 to Form 10-K for the year ended December 31, 2021, is hereby incorporated by reference.*	
	Letter Agreement, signed by Gary Cohn, dated December 24, 2020, filed as Exhibit 10.4 to Form 10-K for the year ended December 31, 2021, is hereby incorporated by reference.*	
	$2,500,000,000 Three-Year Credit Agreement, dated as of June 22, 2021, among International Business Machines Corporation, the Subsidiary Borrowers parties thereto, the several banks and other financial institutions from time to time parties to such agreement, JPMorgan Chase Bank, N.A., as Administrative Agent, BNP Paribas, Citibank N.A. and Royal Bank of Canada, as Syndication Agents, and the Documentation Agents named therein, filed as Exhibit 10.1 to Form 8-K, filed June 25, 2021, is hereby incorporated by reference.	
	Amendment No. 1 to Three-Year Credit Agreement dated as of June 30, 2022, among International Business Machines Corporation, the several banks and other financial institutions from time to time parties to such agreement and JPMorgan Chase Bank, N.A., as Administrative Agent, filed as Exhibit 10.1 to Form 8-K, filed July 1, 2022, is hereby incorporated by reference.	
	$7,500,000,000 Five-Year Credit Agreement, dated as of June 22, 2021, among International Business Machines Corporation, the Subsidiary Borrowers parties thereto, the several banks and other financial institutions from time to time parties to such agreement, JPMorgan Chase Bank, N.A., as Administrative Agent, BNP Paribas, Citibank, N.A. and Royal Bank of Canada, as Syndication Agents, and the Documentation Agents named therein, filed as Exhibit 10.2 to Form 8-K, filed June 25, 2021, is hereby incorporated by reference.	
	Amendment No. 1 to Five-Year Credit Agreement dated as of June 30, 2022, among International Business Machiness Corporation, the several banks and other financial institutions from time to time parties to such agreement and JPMorgan Chase Bank, N.A., as Administrative Agent, filed as Exhibit 10.2 to Form 8-K, filed July 1, 2022, is hereby incorporated by reference.	
(13)	Annual Report to Security Holders**	13
(21)	Subsidiaries of the registrant	21
(23)	Consent of Independent Registered Public Accounting Firm	23.1
(24)	Powers of attorney	24.1
	Resolution of the IBM Board of Directors authorizing execution of this Annual Report on Form 10-K by Powers of Attorney	24.2

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Reference Number per Item 601 of Regulation S-K	Description of Exhibits	Exhibit Number in this Form 10-K
(31)	Certification by CEO pursuant to Rule 13A-14(a) or 15D-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	31.1
	Certification by CFO pursuant to Rule 13A-14(a) or 15D-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	31.2
(32)	Certification by CEO pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	32.1
	Certification by CFO pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	32.2
101.INS	XBRL Instance Document – the instance document does not appear on the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.	
101.SCH	XBRL Taxonomy Extension Schema Document	
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	101
104	Cover Page Interactive Data File - the cover page interactive data file does not appear in the Interactive Data file because its XBRL tags are embedded within the Inline XBRL document.	104

* Management contract or compensatory plan or arrangement.

** The Performance Graphs, set forth on page 121 of IBM’s 2022 Annual Report to Stockholders, are deemed to be furnished but not filed.

Item 16. Form 10-K Summary:

None.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

INTERNATIONAL BUSINESS MACHINES CORPORATION
(Registrant)

By: /s/ ARVIND KRISHNA
Arvind Krishna
Chairman of the Board
and Chief Executive Officer

Date: February 28, 2023

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ ARVIND KRISHNA Arvind Krishna	Chairman of the Board, and Chief Executive Officer	February 28, 2023
/s/ JAMES J. KAVANAUGH James J. Kavanaugh	Senior Vice President and Chief Financial Officer, Finance and Operations	February 28, 2023
/s/ NICOLAS A. FEHRING Nicolas A. Fehring	Vice President and Controller (Chief Accounting Officer)	February 28, 2023

Board of Directors

By: /s/ FRANK SEDLARCIK
Frank Sedlarcik
Attorney-in-fact
February 28, 2023

Thomas Buberl	Director
David N. Farr	Director
Alex Gorsky	Director
Michelle J. Howard	Director
Andrew N. Liveris	Director
F. William McNabb III	Director
Martha E. Pollack	Director
Joseph R. Swedish	Director
Peter R. Voser	Director
Frederick H. Waddell	Director
Alfred W. Zollar	Director

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON FINANCIAL STATEMENT SCHEDULE

To the Board of Directors and Stockholders of
International Business Machines Corporation:

Our audits of the consolidated financial statements referred to in our report dated February 28, 2023 appearing in the 2022 Annual Report to Stockholders of International Business Machines Corporation (which report and consolidated financial statements are incorporated by reference in this Annual Report on Form 10-K) also included an audit of the financial statement schedule listed in Item 15(a)(2) of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
New York, New York
February 28, 2023

SCHEDULE II

INTERNATIONAL BUSINESS MACHINES CORPORATION AND SUBSIDIARY COMPANIES
VALUATION AND QUALIFYING ACCOUNTS AND RESERVES
For the Years Ended December 31:
(Dollars in Millions)

Description	Balance at Beginning of Period	Additions/ (Deductions)	Write-offs	Foreign Currency and Other	Balance at End of Period
Allowance For Credit Losses					
2022					
–Current	$ 418	$ 59	$ (55)	$ 45 *	$ 467
–Noncurrent	$ 25	$ 6	$ 0	$ (2)	$ 28
2021					
–Current	$ 503	$ (35)	$ (46)	$ (4)	$ 418
–Noncurrent	$ 47	$ (21)	$ 0	$ (2)	$ 25
2020					
–Current	$ 471	$ 91	$ (78)	$ 19	$ 503
–Noncurrent	$ 56	$ 4	$ 0	$ (13)	$ 47
Allowance For Inventory Losses					
2022	$ 633	$ 162	$ (148)	$ (15)	$ 631
2021	$ 514	$ 240	$ (118)	$ (3)	$ 633
2020	$ 490	$ 135	$ (125)	$ 15	$ 514
Revenue Based Provisions					
2022	$ 435	$ 620	$ (629)	$ (2)	$ 424
2021	$ 372	$ 627	$ (574)	$ 10	$ 435
2020	$ 383	$ 689	$ (712)	$ 13	$ 372

* Includes reserves related to discontinued operations.

Additions/(Deductions) to the allowances represent changes in estimates of unrecoverable amounts in receivables and inventory and are recorded to expense and cost accounts, respectively. Amounts are written-off when they are deemed unrecoverable by the company. Additions/(Deductions) to Revenue Based Provisions represent changes in estimated reductions to revenue, primarily as a result of revenue-related programs, including customer and business partner rebates. Write-offs for Revenue Based Provisions represent reductions in the provision due to amounts remitted to customers and business partners.

Exhibit 4.1

International Business Machines Corporation

This exhibit includes both equity and debt disclosure required under Item 202 of Regulation S-K relating to the company's Capital Stock, Notes and Debentures registered under Section 12 of the Exchange Act outstanding as December 31, 2022.

SUMMARY DESCRIPTION OF THE CAPITAL STOCK REGISTERED UNDER SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

The following description contains a summary of some of the important provisions of relating to the capital stock of International Business Machines Corporation (IBM or the company), and does not purport to be complete and is subject to and qualified in its entirety by reference to the company's Certificate of Incorporation and By-Laws, which are included as exhibits to this Form 10-K. As of the date of this Form 10-K, the company is authorized to issue up to 4,687,500,000 shares of capital stock, $0.20 par value per share. As of December 31, 2022, 2,257,116,920 shares of capital stock were issued and 906,091,977 were outstanding. The company has no other class of equity securities issued and outstanding.

Dividends. Holders of capital stock are entitled to receive dividends, in cash, securities, or property, as may from time to time be declared by our Board of Directors, subject to the rights of the holders of the preferred stock.

Voting. Each holder of capital stock is entitled to one vote per share on all matters requiring a vote of the stockholders.

Rights upon liquidation. In the event of our voluntary or involuntary liquidation, dissolution, or winding up, the holders of capital stock will be entitled to share equally in our assets available for distribution after payment in full of all debts and after the holders of preferred stock have received their liquidation preferences in full.

Miscellaneous. Shares of capital stock are not redeemable and have no subscription, conversion or preemptive rights.

Additional By-law provisions applicable to the capital stock. In accordance with the terms of the company's By-Laws,

- holders of 25% of the outstanding shares of capital stock of the company have the ability to call a special meeting, and

- holders of 3% or more of the outstanding shares of capital stock for three years may exercise proxy access rights.

The company's By-Laws also establish advance notice procedures with respect to shareholder proposals and shareholder proxy access rights.

Listing. All shares of issued and outstanding capital stock are listed on the New York Stock Exchange and the Chicago Stock Exchange under the ticker symbol "IBM."

SUMMARY DESCRIPTION OF THE DEBT SECURITIES REGISTERED UNDER SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

The following description contains a summary of some of the important provisions relating to the Company's debt securities registered under Section 12 of the Securities Exchange Act of 1934 as of December 31, 2022. It does not purport to be complete and is subject to and qualified in its entirety by reference to: (i) the Company's indenture dated as of October 1, 1993, as supplemented on December 15, 1995, between IBM and The Bank of New York Mellon Trust Company, N.A., as trustee (the "Senior Indenture") and (ii) the instruments defining the rights of holders of each series of Notes and Debentures described below (such series collectively, the "debt securities"). The Senior Indenture and instruments defining the rights of holders of the debt securities are included as exhibits to this Form 10-K. All capitalized terms used herein but not defined shall have the meaning ascribed to them in either the Senior Indenture or the respective Note or Debenture, as applicable.

Overview

All debt securities registered by IBM under Section 12 of the Securities Exchange Act of 1934 that are outstanding as of December 31, 2022, have been issued under the Senior Indenture and listed on the New York Stock Exchange. A listing of each series of registered debt securities follows:

1. 1.250% Notes due 2023
2. 0.375% Notes due 2023
3. 1.125% Notes due 2024
4. 2.875% Notes due 2025
5. 0.950% Notes due 2025
6. 0.875% Notes due 2025
7. 0.300% Notes due 2026
8. 1.250% Notes due 2027
9. 1.750% Notes due 2028
10. 0.300% Notes due 2028
11. 1.500% Notes due 2029
12. 0.875% Notes due 2030
13. 1.750% Notes due 2031
14. 0.650% Notes due 2032
15. 1.250% Notes due 2034
16. 1.200% Notes due 2040
17. 7.00% Debentures due 2025
18. 6.22% Debentures due 2027
19. 6.50% Debentures due 2028
20. 5.875% Debentures due 2032
21. 7.00% Debentures due 2045
22. 7.125% Debentures due 2096

Each issuance of debt securities described in this Appendix constitute a separate series (each, a "series") of debt securities under the Senior Indenture for purposes of, among other things, payment of principal and interest, events of default and consents to amendments to the Senior Indenture. Each series of debt securities are unsecured and have the same rank as all of IBM's other unsecured and unsubordinated debt. The Senior Indenture does not limit the amount of debt securities that we may issue and debt securities may be issued in one or more separate series. The Senior Indenture provides that additional debt securities may be issued up to the principal amount authorized by us from time to time.

IBM may in the future, without the consent of the holders, increase the outstanding principal amount of any series of debt securities on the same terms and conditions and with the same CUSIP numbers as debt securities of that series previously issued. Any such additional debt securities will vote together with all other debt securities of the same series for purposes of amendments, waivers and all other matters with respect to such series.

The debt securities will be subject to defeasance and covenant defeasance as provided under “Satisfaction and Discharge; Defeasance” below.

IBM may, without the consent of the holders of any series of debt securities, issue additional debt securities having the same ranking and the same interest rate, maturity and other terms as that series of debt securities, provided, however, that no such additional debt securities may be issued unless such additional debt securities are fungible with the debt securities of such series for U.S. federal income tax purposes. Any additional debt securities having such similar terms, together with the original debt securities of such series, will constitute a single series of debt securities under the Senior Indenture. No additional debt securities may be issued if an event of default has occurred with respect to such series of debt securities.

Interest Provisions

Unless otherwise specified below with respect to a specific series of debt securities, each series of debt securities bear interest from the date of issuance at the rate of interest stated below in connection with such series.

Supplemental Indentures

The Senior Indenture contains provisions permitting the Company and the Trustee, with the consent of the holders of not less than a majority in aggregate principal amount of the debt securities at the time outstanding of all series to be affected (acting as one class), to execute supplemental indentures adding any provisions to or changing in any manner or eliminating any of the provisions of the Senior Indenture or of any supplemental indenture or modifying in any manner the rights of the holders of the debt securities of such series to be affected; provided, however, that no such supplemental indenture shall, among other things, (i) change the fixed maturity of the principal of, or any installment of principal of or interest on, or the currency of payment of, any debt security; (ii) reduce the principal amount thereof or the rate of interest thereon or any premium payable upon the redemption thereof; (iii) impair the right to institute suit for the enforcement of any such payment on or after the fixed maturity thereof (or, in the case of redemption, on or after the redemption date); (iv) reduce the percentage in principal amount of the outstanding debt securities of any series, the consent of whose holders is required for any such supplemental indenture, or the consent of whose holders is required for any waiver (of compliance with certain provisions of the Senior Indenture or certain defaults thereunder and their consequences) provided for in the Senior Indenture; (v) change any obligation of the Company, with respect to outstanding debt securities of a series, to maintain an office or agency in the places and for the purposes specified in the Senior Indenture for such series; or (vi) modify any of the foregoing provisions or the provisions for the waiver of certain covenants and defaults, except to increase any applicable percentage of the aggregate principal amount of outstanding debt securities the consent of the holders of which is required or to provide with respect to any particular series the right to condition the effectiveness of any supplemental indenture as to that series on the consent of the holders of a specified percentage of the aggregate principal amount of outstanding debt securities of such series or to provide that certain other provisions of the Senior Indenture cannot be modified or waived without the consent of the holder of each outstanding debt security affected thereby. It is also provided in the Senior Indenture that the holders of a majority in aggregate principal amount of the debt securities of a series at the time outstanding may on behalf of the holders of all the debt securities of such series waive any past default under the Senior Indenture with respect to such series and its consequences, except a default in the payment of the principal of, premium, if any, or interest, if any, on any debt security of such series or in respect of a covenant or provision which cannot be modified without the consent of the holder of each outstanding debt security of the series affected. Any such consent or waiver by the holder of a debt security shall be conclusive and binding upon such holder and upon all future holders and owners of the debt security and any debt security which may be issued in exchange or substitution therefor, irrespective of whether or not any notation thereof is made upon the debt security or such other debt securities.

No reference to the Senior Indenture and no provision of any debt securities or the Senior Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of, if any, and interest on the debt securities at the place, at the respective times, at the rate and in the coin or currency prescribed.

The Senior Indenture permits the Company to Discharge its obligations with respect to the debt securities on the 91st day following the satisfaction of the conditions set forth in the Senior Indenture, which include the deposit with the Trustee of

money or Foreign Government Securities or a combination thereof sufficient to pay and discharge each installment of principal of (including premium, if any, on) and interest, if any, on the outstanding debt securities.

If the Company shall consolidate with or merge into any other corporation or convey or transfer its properties and assets substantially as an entirety to any Person, as defined in the Senior Indenture, the successor shall succeed to, and be substituted for, the Person named as the "Company" on the face of each series of debt securities, all on the terms set forth in the Senior Indenture.

Covenants

The Senior Indenture includes the following covenants:

Limitation on merger, consolidation and certain sales of assets. IBM may, without the consent of the holders of the debt securities, merge into or consolidate with any other corporation, or convey or transfer all or substantially all of our properties and assets to another person provided that:

- the successor is a U.S. corporation;
- the successor assumes on the same terms and conditions all the obligations under the debt securities and the Senior Indenture; and
- immediately after giving effect to the transaction, there is no default under the Senior Indenture.
- The remaining or acquiring corporation will take over all of our rights and obligations under the Senior Indenture.

Limitation on secured indebtedness. Neither IBM nor any Restricted Subsidiary will create, assume, incur or guarantee any Secured Indebtedness without securing the debt securities equally and ratably with, or prior to, that Secured Indebtedness, *unless* the sum of the following amounts would not exceed 10% of Consolidated Net Tangible Assets:

- the total amount of all Secured Indebtedness that the debt securities are not secured equally and ratably with, and
- the discounted present value of all net rentals payable under leases entered into in connection with sale and leaseback transactions entered into after July 15, 1985.

IBM does not include in this calculation any leases entered into by a Restricted Subsidiary before the time it became a Restricted Subsidiary.

Limitation on sale and leaseback transactions. Neither IBM nor any Restricted Subsidiary will enter into any lease longer than three years covering any Principal Property that is sold to any other person in connection with that lease unless either:

1. the sum of the following amounts does not exceed 10% of Consolidated Net Tangible Assets:

- the discounted present value of all net rentals payable under all these leases entered into after July 15, 1985; and
- the total amount of all Secured Indebtedness that the debt securities are not secured equally and ratably with.

IBM does not include in this calculation any leases entered into by a Restricted Subsidiary before the time it became a Restricted Subsidiary.

or

2. an amount equal to the greater of the following amounts is applied within 180 days to the retirement of our long-term debt or the debt of a Restricted Subsidiary:

- the net proceeds to us or a Restricted Subsidiary from the sale; and

- the discounted present value of all net rentals payable under the lease.

Amounts applied to debt which is subordinated to the debt securities or which is owing to IBM or a Restricted Subsidiary will not be included in this calculation.

This limitation on sale and leaseback transactions won't apply to any leases that we may enter into relating to newly acquired, improved or constructed property.

The holders of a majority in principal amount of all affected series of outstanding debt securities may waive compliance with each of the above covenants.

Definitions

"*Secured Indebtedness*" means our indebtedness or indebtedness of a Restricted Subsidiary for borrowed money secured by any lien on, or any conditional sale or other title retention agreement covering, any Principal Property or any stock or indebtedness of a Restricted Subsidiary. Excluded from this definition is all indebtedness:

- outstanding on July 15, 1985, secured by liens, or arising from conditional sale or other title retention agreements, existing on that date;
- incurred after July 15, 1985 to finance the acquisition, improvement or construction of property, and either secured by purchase money mortgages or liens placed on the property within 180 days of acquisition, improvement or construction or arising from conditional sale or other title retention agreements;
- secured by liens on Principal Property or on the stock or indebtedness of Restricted Subsidiaries, and, in either case, existing at the time of its acquisition;
- owing to us or any Restricted Subsidiary;
- secured by liens, or conditional sale or other title retention devices, existing at the time a corporation became or becomes a Restricted Subsidiary after July 15, 1985;
- constituting our guarantees of Secured Indebtedness and Attributable Debt of any Restricted Subsidiaries and guarantees by a Restricted Subsidiary of Secured Indebtedness and Attributable Debt of ours and any other Restricted Subsidiaries;
- arising from any sale and leaseback transaction;
- incurred to finance the acquisition or construction of property secured by liens in favor of any country or any political subdivision; and
- constituting any replacement, extension or renewal of any indebtedness to the extent the amount of indebtedness is not increased.

"*Principal Property*" means land, land improvements, buildings and associated factory, laboratory and office equipment constituting a manufacturing, development, warehouse, service or office facility owned by or leased to us or a Restricted Subsidiary which is located within the United States and which has an acquisition cost plus capitalized improvements in excess of 0.15% of Consolidated Net Tangible Assets as of the date of such determination. Principal Property does not include:

- products marketed by us or our subsidiaries;
- any property financed through the issuance of tax-exempt governmental obligations;

- any property which our Board of Directors determines is not of material importance to us and our Restricted Subsidiaries taken as a whole; or
- any property in which the interest of us and all of our subsidiaries does not exceed 50%.

"*Consolidated Net Tangible Assets*" means the total assets of us and our subsidiaries, less current liabilities and intangible assets. We include in intangible assets the balance sheet value of:

- all trade names, trademarks, licenses, patents, copyrights and goodwill;
- organizational and development costs;
- deferred charges other than prepaid items such as insurance, taxes, interest, commissions, rents and similar items and tangible items we are amortizing; and
- unamortized debt discount and expense minus unamortized premium.

We do not include in intangible assets any program products.

"*Attributable Debt*" means the discounted present value of a lessee's obligation for rental payments under a sale and leaseback transaction of Principal Property, reduced by amounts owed by any sublessee for rental obligations during the remaining term of that transaction. The discount rate we use for the Attributable Debt is called the "*Attributable Interest Rate*." We compute the Attributable Interest Rate as the weighted average of the interest rates of all securities then issued and outstanding under the Senior Indenture.

"*Restricted Subsidiary*" means:

1. any of our subsidiaries:
   a. which has substantially all its property in the United States;
   b. which owns or is a lessee of any Principal Property; and,
   c. in which our investment and the investment of our subsidiaries exceeds 0.15% of Consolidated Net Tangible Assets as of the date of such determination; and
2. any other subsidiary the Board of Directors may designate as a Restricted Subsidiary.

"*Restricted Subsidiary*" does not include financing subsidiaries and subsidiaries formed or acquired after July 15, 1985 for the purpose of acquiring the stock, business or assets of another person and that have not and do not acquire all or any substantial part of our business or assets or the business or assets of any Restricted Subsidiary.

Satisfaction and Discharge; Defeasance

We may be discharged from our obligations on any series of debt securities that have matured or will mature or be redeemed within one year if we deposit with the trustee enough cash to pay all the principal, interest and any premium due to the stated maturity date or redemption date of the debt securities.

The Senior Indenture contains a provision that permits us to elect:

1. to be discharged after 90 days from all of our obligations (subject to limited exceptions) with respect to any series of debt securities then outstanding; and/or

2. to be released from our obligations under the following covenants and from the consequences of an event of default or cross-default resulting from a breach of these covenants:

    a. the limitations on mergers, consolidations and sale of assets,

    b. the limitations on sale and leaseback transactions under the Senior Indenture, and

    c. the limitations on secured indebtedness under the Senior Indenture.

To make either of the above elections, we must deposit in trust with the trustee enough money to pay in full the principal, interest and premium on the debt securities. This amount may be made in cash and/or U.S. government obligations, if the debt securities are denominated in U.S. dollars. This amount may be made in cash, and/or foreign government securities if the debt securities are denominated in a foreign currency. As a condition to either of the above elections, we must deliver to the trustee an opinion of counsel that the holders of such series of debt securities will not recognize income, gain or loss for U.S. Federal income tax purposes as a result of the action.

If either of the above events occur, the holders of the debt securities of the series will not be entitled to the benefits of the Senior Indenture, except for registration of transfer and exchange of debt securities and replacement of lost, stolen or mutilated debt securities.

Events of Default, Notice and Waiver

In case an event of default with respect to any series of debt securities shall have occurred and be continuing, the principal amount of such series, together with interest accrued thereon, if any, may be declared, and upon such declaration shall become, due and payable, in the manner, with the effect and subject to the conditions provided in the Senior Indenture.

If an event of default for any series of debt securities occurs and continues, the trustee or the holders of at least 25% in principal amount of the debt securities of the series may declare the entire principal amount of all the debt securities of that series to be due and payable immediately.

The declaration may be annulled and past defaults may be waived by the holders of a majority of the principal amount of the debt securities of that series. However, payment defaults that are not cured may only be waived by all holders of such series of debt securities.

The Senior Indenture defines an event of default with respect to each series of debt securities as one or more of the following events:

- we fail to pay interest for 30 days when due;
- we fail to pay the principal or any premium when due;
- we fail to make any sinking fund payment for 30 days when due;
- we fail to perform any other covenant for 90 days after being given notice; and
- we enter into bankruptcy or become insolvent.

An event of default for one series of debt securities is not necessarily an event of default for any other series of debt securities.

The Senior Indenture requires the trustee to give the holders of a series of debt securities notice of a default for that series within 90 days unless the default is cured or waived. However, the trustee may withhold this notice if it determines in good faith that it is in the interest of those holders. The Trustee may not, however, withhold this notice in the case of a payment default.

Other than the duty to act with the required standard of care during an event of default, a trustee is not obligated to exercise any of its rights or powers under the Senior Indenture at the request or direction of any of the holders of debt securities, unless the holders have offered to the trustee reasonable indemnification.

Generally, the holders of a majority in principal amount of outstanding debt securities of any series may direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or other power conferred on the trustee.

The Senior Indenture includes a covenant for the Company to file annually with the trustee a certificate of no default, or specifying any default that exists.

Street name and other indirect holders should consult their banks and brokers for information on their requirements for giving notice or taking other actions upon a default.

Unless otherwise specified with respect to a specific series of debt securities, no debt securities are subject to any sinking fund.

Modification of the Senior Indenture

Together with the trustee, we may modify the Senior Indenture without the consent of the holders of the debt securities for limited purposes, including adding to our covenants or events of default, establishing forms or terms of debt securities, curing ambiguities and other purposes which do not adversely affect the holders of the debt securities in any material respect.

Together with the trustee, we may also make modifications and amendments to the Senior Indenture with the consent of the holders of a majority in principal amount of the outstanding debt securities of all affected series. However, without the consent of each affected holder, no modification may:

- change the stated maturity of any series of debt securities;
- reduce the principal, premium (if any) or rate of interest on any series of debt securities;
- change any place of payment or the currency in which any series of debt securities is payable;
- impair the right to enforce any payment after the stated maturity or redemption date;
- adversely affect the terms of any conversion right;
- reduce the percentage of holders of outstanding debt securities of any series required to consent to any modification, amendment or waiver under the Senior Indenture;
- change any of our obligations for any outstanding series of debt securities to maintain an office or agency in the places and for the purposes specified in the Senior Indenture for that series; or
- change the provisions in the Senior Indenture that relate to its modification or amendment.

Unless otherwise specified with respect to a specific series of debt securities, no debt securities contain any conversion rights.

Meetings

The Senior Indenture contains provisions for convening meetings of the holders of a series of debt securities.

A meeting may be called at any time by the trustee, upon request by us or upon request by the holders of at least 10% in principal amount of the outstanding debt securities of a series. In each case, notice will be given to the holders of debt securities of such series.

Persons holding a majority in principal amount of the outstanding debt securities of a series will constitute a quorum at a meeting. A meeting called by us or the trustee that did not have a quorum may be adjourned for not less than 10 days, and if there is not a quorum at the adjourned meeting, the meeting may be further adjourned for not less than 10 days.

Generally, any resolution presented at a meeting at which a quorum is present may be adopted by the affirmative vote of the holders of a majority in principal amount of the outstanding debt securities of that series. However, to change the amount or timing of payments under the debt securities, every holder in the series must consent.

Governing Law

The Senior Indenture, the debt securities and the coupons will be governed by, and construed under, the laws of the State of New York.

Trustee

The trustee for the debt securities under the Senior Indenture is The Bank of New York Mellon Trust Company, N.A. We may from time to time maintain lines of credit, and have other customary banking relationships, with The Bank of New York Mellon Trust Company, N.A. For example, The Bank of New York Mellon Trust Company, N.A. participates as one of the lenders in our revolving credit agreements.

Set forth below is information specific to each series of debt securities issued by IBM and registered under Section 12 of the Securities Exchange Act of 1934 that are outstanding as of December 31, 2022.

1. 1.250% Notes due 2023

Title/Description of Debt Issuance:	1.250% Notes due 2023
Date of Issuance:	November 26, 2014
Maturity Date	May 26, 2023
Principal Amount of Notes originally issued	€1,000,000,000 (Euro)
Principal Amount of Notes currently outstanding	€1,000,000,000 (Euro)
Interest Payment Dates	Annually on May 26

First Interest Payment Date	May 26, 2015
Coupon	1.250% per annum
Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i)100% of the principal amount of the Notes to be redeemed; or (ii)the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date. "Optional Redemption Price" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on this Note, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.10%. "Reference Bond" means, in relation to any Optional Redemption Price calculation, the German Government DBR 1.500% due May 15, 2023, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay

	additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a ‘‘10-percent shareholder’’ of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code, as amended (the “Code”) or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment;

	(5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any Notes where such withholding is imposed on a payment to an individual and is required to be made pursuant to European Union Directive 2003/48/EC on the taxation of savings income or any law implementing or complying with, or introduced in order to conform to, such Directive; (9) to any Notes presented for payment by, or on behalf of, a holder or beneficial holder who would have been able to avoid such withholding or deduction by presenting the relevant Notes to another paying agent in a member state of the European Union; (10) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (11) to any Notes presented for payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for Additional Amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; or (12) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8), (9), (10) and (11). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political

	subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after November 19, 2014, the Company becomes or, based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 HY0
NYSE Trading Symbol	IBM 23A

2. 0.375% Notes due 2023

Title/Description of Debt Issuance:	0.375% Notes due 2023
Date of Issuance:	January 31, 2019
Maturity Date	January 31, 2023
Principal Amount of Notes originally issued	€1,750,000,000 (Euro)
Principal Amount of Notes currently outstanding	€1,750,000,000 (Euro)

Interest Payment Dates	Annually on January 31
First Interest Payment Date	January 31, 2020
Coupon	0.375% per annum
Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; or (ii) the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date. "Optional Redemption Price" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on this Note, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.15%. "Reference Bond" means, in relation to any Optional Redemption Price calculation, the German Government OBL 0.000% due October 7, 2022 #176, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount

	provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a ''10-percent shareholder'' of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code, as amended (the "Code") or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge;

	(4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (9) with respect to any payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for additional amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; and (10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its

	territories, possessions and other areas subject to its jurisdiction, and the term "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after January 24, 2019, the Company becomes, or based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 JS1
NYSE Trading Symbol	IBM 23B

3. 1.125% Notes Due 2024

Title/Description of Debt Issuance:	1.125% Notes Due 2024
Date of Issuance:	March 7, 2016
Maturity Date	September 6, 2024
Principal Amount of Notes originally issued	€750,000,000 (Euro)
Principal Amount of Notes currently outstanding	€750,000,000 (Euro)
Interest Payment Dates	Annually on September 6
First Interest Payment Date	September 6, 2016
Coupon	1.125% per annum
Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more

	than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i)100% of the principal amount of the Notes to be redeemed; or (ii)the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date. "Optional Redemption Price" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on this Note, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.20%. "Reference Bond" means, in relation to any Optional Redemption Price calculation, the German Government DBR 1.000% due August 15, 2024, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as:

	(a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a "10-percent shareholder" of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code, as amended (the "Code") or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later;

	(6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any Notes where such withholding is imposed on a payment to an individual and is required to be made pursuant to European Union Directive 2003/48/EC on the taxation of savings income or any law implementing or complying with, or introduced in order to conform to, such Directive; (9) to any Notes presented for payment by, or on behalf of, a holder or beneficial holder who would have been able to avoid such withholding or deduction by presenting the relevant Notes to another paying agent in a member state of the European Union; (10) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (11) to any Notes presented for payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for Additional Amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; or (12) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8), (9), (10) and (11). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its

	territories, possessions and other areas subject to its jurisdiction, "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after February 29, 2016, the Company becomes or, based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 JK8
NYSE Trading Symbol	IBM 24A

4. 2.875% Notes due 2025

Title/Description of Debt Issuance:	2.875% Notes due 2025
Date of Issuance:	November 7, 2013
Maturity Date	November 7, 2025
Principal Amount of Notes originally issued	€1,000,000,000 (Euro)
Principal Amount of Notes currently outstanding	€1,000,000,000 (Euro)
Interest Payment Dates	Annually on November 7
First Interest Payment Date	November 7, 2014
Coupon	2.875% per annum
Optional Redemption	The Notes are redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more than 60

	days, prior notice to the holder of the Notes given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i)100% of the principal amount of the Notes to be redeemed; or (ii)the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date. "Optional Redemption Price" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on the Notes, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.17%. "Reference Bond" means, in relation to any Optional Redemption Price calculation, the German Government DBR 2.000% due August 15, 2023, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on the Notes or any portion of the Notes called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of the Notes to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on the Notes such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in the Notes to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as:

	(a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a ‘‘10-percent shareholder’’ of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code, as amended (the “Code”) or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge;

	(7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any Notes where such withholding is imposed on a payment to an individual and is required to be made pursuant to European Union Directive 2003/48/EC on the taxation of savings income or any law implementing or complying with, or introduced in order to conform to, such Directive; (9) to any Notes presented for payment by, or on behalf of, a holder who would have been able to avoid such withholding or deduction by presenting the relevant Notes to another paying agent in a member state of the European Union; (10) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (11) to any Notes presented for payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for Additional Amounts with respect to Taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; or (12) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8), (9), (10) and (11). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term “United States” means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, “United States person” means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not

	treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after October 31, 2013, the Company becomes or, based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 HR5
NYSE Trading Symbol	IBM 25A

5. 0.950% Notes due 2025

Title/Description of Debt Issuance:	0.950% Notes due 2025
Date of Issuance:	May 23, 2017
Maturity Date	May 23, 2025
Principal Amount of Notes originally issued	€1,000,000,000 (Euro)
Principal Amount of Notes currently outstanding	€1,000,000,000 (Euro)
Interest Payment Dates	Annually on May 23
First Interest Payment Date	May 23, 2018
Coupon	0.950% per annum
Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; or (ii) the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date.

	“Optional Redemption Price” means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on this Note, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.15%. “Reference Bond” means, in relation to any Optional Redemption Price calculation, the German Government DBR 0.500% due February 15, 2025, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States;

	(c) being or having been a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a "10-percent shareholder" of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code, as amended (the "Code") or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge;

	(7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (9) to any Notes presented for payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for Additional Amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; or (10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after May 16, 2017,

	the Company becomes or, based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	U45920AM4
NYSE Trading Symbol	IBM 25B

6. 0.875% Notes due 2025

Title/Description of Debt Issuance:	0.875% Notes due 2025
Date of Issuance:	January 31, 2019
Maturity Date	January 31, 2025
Principal Amount of Notes originally issued	€1,000,000,000 (Euro)
Principal Amount of Notes currently outstanding	€1,000,000,000 (Euro)
Interest Payment Dates	Annually on January 31
First Interest Payment Date	January 31, 2020
Coupon	0.875% per annum
Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; or (ii) the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date. "Optional Redemption Price" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on this Note, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.20%.

	"Reference Bond" means, in relation to any Optional Redemption Price calculation, the German Government DBR 1.000% due August 15, 2024, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax;

	(d) being or having been a "10-percent shareholder" of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code, as amended (the "Code") or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of

	such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (9) with respect to any payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for additional amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; and (10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, and the term "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after January 24, 2019, the Company becomes, or based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.

Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 JT9
NYSE Trading Symbol	IBM 25C

7. 0.300% Notes due 2026

Title/Description of Debt Issuance:	0.300% Notes due 2026
Date of Issuance:	November 2, 2016
Maturity Date	November 2, 2026
Principal Amount of Notes originally issued	¥42,000,000,000 (JPY)
Principal Amount of Notes currently outstanding	¥42,000,000,000 (JPY)
Interest Payment Dates	Semi-annually on May 2 and November 2 of each year
First Interest Payment Date	May 2, 2017
Coupon	0.300% per annum
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation

	with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a "10-percent shareholder" of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code, as amended (the "Code") or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent;

	(8) to any Notes where such withholding is imposed on a payment to an individual and is required to be made pursuant to European Union Directive 2003/48/EC on the taxation of savings income or any law implementing or complying with, or introduced in order to conform to, such Directive; (9) to any Notes presented for payment by, or on behalf of, a holder or beneficial holder who would have been able to avoid such withholding or deduction by presenting the relevant Notes to another paying agent in a member state of the European Union; (10) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (11) to any Notes presented for payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for Additional Amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; or (12) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8), (9), (10) and (11). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term “United States” means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, “United States person” means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.

Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after October 27, 2016, the Company becomes or, based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of ¥100,000,000 and any integral multiple of ¥10,000,000 in excess thereof.
CUSIP	459200 JM4
NYSE Trading Symbol	IBM 26B

8. 1.250% Notes due 2027

Title/Description of Debt Issuance:	1.250% Notes due 2027
Date of Issuance:	January 31, 2019
Maturity Date	January 29, 2027
Principal Amount of Notes originally issued	€1,000,000,000 (Euro)
Principal Amount of Notes currently outstanding	€1,000,000,000 (Euro)
Interest Payment Dates	Annually on January 29
First Interest Payment Date	January 29, 2020
Coupon	1.250% per annum
Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; or (ii) the

	Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date. "Optional Redemption Price" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on this Note, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.25%. "Reference Bond" means, in relation to any Optional Redemption Price calculation, the German Government DBR 0.000% due August 15, 2026, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States;

	(b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a ‘‘10-percent shareholder’’ of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code, as amended (the “Code”) or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later;

	(6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (9) with respect to any payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for additional amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; and (10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, and the term "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or

	any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after January 24, 2019, the Company becomes, or based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 JU6
NYSE Trading Symbol	IBM 27B

9. 1.750% Notes due 2028

Title/Description of Debt Issuance:	1.750% Notes due 2028
Date of Issuance:	March 7, 2016
Maturity Date	March 7, 2028
Principal Amount of Notes originally issued	€500,000,000 (Euro)
Principal Amount of Notes currently outstanding	€500,000,000 (Euro)
Interest Payment Dates	Annually on March 7
First Interest Payment Date	March 7, 2017
Coupon	1.750% per annum
Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; or (ii)the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date. "Optional Redemption Price" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on this Note, if it

	were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.30%. “Reference Bond” means, in relation to any Optional Redemption Price calculation, the German Government DBR 0.500% due February 15, 2026, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with

	respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a "10-percent shareholder" of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code, as amended (the "Code") or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent;

	(8) to any Notes where such withholding is imposed on a payment to an individual and is required to be made pursuant to European Union Directive 2003/48/EC on the taxation of savings income or any law implementing or complying with, or introduced in order to conform to, such Directive; (9) to any Notes presented for payment by, or on behalf of, a holder or beneficial holder who would have been able to avoid such withholding or deduction by presenting the relevant Notes to another paying agent in a member state of the European Union; (10) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (11) to any Notes presented for payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for Additional Amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; or (12) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8), (9), (10) and (11). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term “United States” means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, “United States person” means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.

Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after February 29, 2016, the Company becomes or, based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 JL6
NYSE Trading Symbol	IBM 28A

10. 0.300% Notes due 2028

Title/Description of Debt Issuance:	0.300% Notes due 2028
Date of Issuance:	February 11, 2020
Maturity Date	February 11, 2028
Principal Amount of Notes originally issued	€1,300,000,000 (Euro)
Principal Amount of Notes currently outstanding	€1,300,000,000 (Euro)
Interest Payment Dates	Annually on February 11
First Interest Payment Date	February 11, 2021
Coupon	0.300% per annum
Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; or (ii) the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date. "Optional Redemption Price" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on this Note, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.15%. "Reference Bond" means, in relation to any Optional Redemption Price calculation, the German Government DBR 0 ½% due February 15, 2028, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price.

	On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a ‘‘10-percent shareholder’’ of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code of 1986, as amended (the “Code”) or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the

	United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (9) with respect to any payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for additional amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; and (10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, and the term "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after February 4, 2020, the Company becomes, or based upon a written opinion of independent counsel

	selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 KE0
NYSE Trading Symbol	IBM 28B

11. 1.500% Notes due 2029

Title/Description of Debt Issuance:	1.500% Notes due 2029
Date of Issuance:	May 23, 2017
Maturity Date	May 23, 2029
Principal Amount of Notes originally issued	€1,000,000,000 (Euro)
Principal Amount of Notes currently outstanding	€1,000,000,000 (Euro)
Interest Payment Dates	Annually on May 23
First Interest Payment Date	May 23, 2018
Coupon	1.500% per annum
Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; or (ii) the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date.

	"Optional Redemption Price" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on this Note, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.20%. "Reference Bond" means, in relation to any Optional Redemption Price calculation, the German Government DBR 0.250% due February 15, 2027, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States;

	(c) being or having been a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a "10-percent shareholder" of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code, as amended (the "Code") or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge;

	(7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (9) to any Notes presented for payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for Additional Amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; or (10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after

	May 16, 2017, the Company becomes or, based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	U45920 AL6
NYSE Trading Symbol	IBM 29

12. 0.875% Notes due 2030

Title/Description of Debt Issuance:	0.875% Notes due 2030
Date of Issuance:	February 9, 2022
Maturity Date	February 9, 2030
Principal Amount of Notes originally issued	€1,000,000,000 (Euro)
Principal Amount of Notes currently outstanding	€1,000,000,000 (Euro)
Interest Payment Dates	Annually on February 9
First Interest Payment Date	February 9, 2023
Coupon	0.875% per annum
Optional Redemption	The Notes will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 10 days, but not more than 60 days, prior notice to the holders of the Notes (by mail, electronic delivery or otherwise in accordance with the depositary's procedures). Prior to the Par Call Date, as defined below, the redemption price for the Notes will be equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; and (ii) the sum of the present values of the Remaining Scheduled Payments, as defined below, discounted, on an annual basis (ACTUAL/ACTUAL (ICMA)) at the Comparable Government Bond Rate, as defined below, plus 20 basis points, plus, in each case, accrued and unpaid interest on the Notes to be redeemed to, but excluding, the Redemption Date. "Business Day" means any day other than a Saturday or Sunday that is (1) not a day on which banking institutions in the City of New York or the City of London are authorized or required by law or executive order to close and (2) on which the Trans-European Automated Real-time Gross Settlement Express Transfer system (the TARGET2 system), or any successor thereto, operates. "Comparable Government Bond Rate" means the yield to maturity, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), on the third Business Day prior to the date fixed for redemption, of the Comparable Government Bond, as defined below, on the basis of the middle market price of such Comparable Government Bond prevailing at 11:00 a.m. (London time) on such Business Day as determined by an Independent Investment Banker, as defined below. "Comparable Government Bond" with respect to any Comparable Government Bond Rate calculation means a German government bond selected by an Independent Investment Banker as having a maturity closest to the remaining term of the Notes to be

	redeemed (assuming, for this purpose, that the Notes matured on the Par Call Date) that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities having a maturity closest to such remaining term of the Notes, or if such Independent Investment Banker in its discretion considers that such similar bond is not in issue, such other German government bond as such Independent Investment Banker may, with the advice of three brokers of, and/or market makers in, German government bonds selected by the Company, determine to be appropriate for determining the Comparable Government Bond Rate for the Notes. "Independent Investment Banker" means one of the Reference Bond Dealers, to be appointed by the Company. "Par Call Date" means November 9, 2029 (three months prior to the maturity date of the Notes). "Reference Bond Dealer" means each of Barclays Bank PLC, Citigroup Global Markets Limited, HSBC Bank plc, Merrill Lynch International, Mizuho International plc and SMBC Nikko Capital Markets Limited and their respective successors or a Primary Bond Dealer selected by any of them, and their respective successors; provided however, that if any of the foregoing shall cease to be a broker or dealer of, and/or market maker in, German government bonds (a "Primary Bond Dealer"), the Company will substitute therefor another nationally recognized investment banking firm that is a Primary Bond Dealer. "Remaining Scheduled Payments" means, with respect to each Note to be redeemed, the remaining scheduled payments of the principal thereof and interest thereon that would be due after the related Redemption Date but for such redemption (assuming, for this purpose, that the Notes matured on the Par Call Date); provided however, that, if such Redemption Date is not an interest payment date with respect to such Note, the amount of the next succeeding scheduled interest payment thereon will be deemed to be reduced by the amount of interest accrued thereon to such Redemption Date. On and after the Par Call Date, the redemption price for the Notes will be equal to 100% of the principal amount of the Notes to be redeemed plus accrued and unpaid interest to, but excluding, the Redemption Date.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States;

	(c) being or having been a personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a ‘‘10-percent shareholder’’ of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code of 1986, as amended (the "Code") or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (9) with respect to any payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for additional amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; and

	(10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of, or in any government or political subdivision. As used in this Note, the term “United States” means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, and the term “United States person” means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after February 2, 2022, the Company becomes, or based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 KQ3
NYSE Trading Symbol	IBM 30A

13. 1.750% Notes due 2031

Title/Description of Debt Issuance:	1.750% Notes due 2031
Date of Issuance:	January 31, 2019
Maturity Date	January 31, 2031
Principal Amount of Notes originally issued	€1,250,000,000 (Euro)
Principal Amount of Notes currently outstanding	€1,250,000,000 (Euro)
Interest Payment Dates	Annually on January 31
First Interest Payment Date	January 31, 2020
Coupon	1.750% per annum
Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company’s option, at any time or from time to time, on at least 30 days, but not more than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; or (ii) the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date. “Optional Redemption Price” means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by

	the Trustee) on this Note, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average

	midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.25%. "Reference Bond" means, in relation to any Optional Redemption Price calculation, the German Government DBR 0.250% due February 15, 2029, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax;

	(d) being or having been a ‘‘10-percent shareholder’’ of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code, as amended (the “Code”) or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent;

	(8) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (9) with respect to any payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for additional amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; and (10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, and the term "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after January 24, 2019, the Company becomes, or based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption

	price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 JV4
NYSE Trading Symbol	IBM 31

14. 0.650% Notes due 2032

Title/Description of Debt Issuance:	0.650% Notes due 2032
Date of Issuance:	February 11, 2020
Maturity Date	February 11, 2032
Principal Amount of Notes originally issued	€1,600,000,000 (Euro)
Principal Amount of Notes currently outstanding	€1,600,000,000 (Euro)
Interest Payment Dates	Annually on February 11
First Interest Payment Date	February 11, 2021
Coupon	0.650% per annum
Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; or (ii) the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date. "Optional Redemption Price" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on this Note, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.15%. "Reference Bond" means, in relation to any Optional Redemption Price calculation, the German Government DBR 0 ½% due February 15, 2028, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the

	net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a ‘‘10-percent shareholder’’ of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code of 1986, as amended (the “Code”) or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later;

	(6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (9) with respect to any payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for additional amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; and (10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, and the term "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after February 4, 2020, the Company becomes, or based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 KF7
NYSE Trading Symbol	IBM 32A

15. 1.250% Notes due 2034

Title/Description of Debt Issuance:	1.250% Notes due 2034
Date of Issuance:	February 9, 2022
Maturity Date	February 9, 2034
Principal Amount of Notes originally issued	€1,000,000,000(Euro)
Principal Amount of Notes currently outstanding	€1,000,000,000 (Euro)
Interest Payment Dates	Annually on February 9
First Interest Payment Date	February 9, 2023
Coupon	1.250% per annum
Optional Redemption	The Notes will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 10 days, but not more than 60 days, prior notice to the holders of the Notes (by mail, electronic delivery or otherwise in accordance with the depositary's procedures). Prior to the Par Call Date, as defined below, the redemption price for the Notes will be equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; and (ii) the sum of the present values of the Remaining Scheduled Payments, as defined below, discounted, on an annual basis (ACTUAL/ACTUAL (ICMA)) at the Comparable Government Bond Rate, as defined below, plus 20 basis points, plus, in each case, accrued and unpaid interest on the Notes to be redeemed to, but excluding, the Redemption Date. On and after the Par Call Date, the redemption price for the Notes will be equal to 100% of the principal amount of the Notes to be redeemed plus accrued and unpaid interest to, but excluding, the Redemption Date. "Business Day" means any day other than a Saturday or Sunday that is (1) not a day on which banking institutions in the City of New York or the City of London are authorized or required by law or executive order to close and (2) on which the Trans-European Automated Real-time Gross Settlement Express Transfer system (the TARGET2 system), or any successor thereto, operates. "Comparable Government Bond Rate" means the yield to maturity, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), on the third Business Day prior to the date fixed for redemption, of the Comparable Government Bond, as defined below, on the basis of the middle market price of such Comparable Government Bond prevailing at 11:00 a.m. (London time) on such Business Day as determined by an Independent Investment Banker, as defined below. "Comparable Government Bond" with respect to any Comparable Government Bond Rate calculation means a German government bond selected by an Independent Investment Banker as having a maturity closest to the remaining term of the Notes to be redeemed (assuming, for this purpose, that the Notes matured on the Par Call Date) that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities having a maturity closest to such remaining term of the Notes, or if such Independent Investment Banker in its discretion considers that such similar bond is not in issue, such other German government bond as such Independent Investment Banker may, with the advice of three brokers of, and/or market makers in, German government bonds selected by the Company, determine to be appropriate for determining the Comparable Government Bond Rate for the Notes.

	"Independent Investment Banker" means one of the Reference Bond Dealers, to be appointed by the Company. "Par Call Date" means November 9, 2033 (three months prior to the maturity date of the Notes). "Reference Bond Dealer" means each of Barclays Bank PLC, Citigroup Global Markets Limited, HSBC Bank plc, Merrill Lynch International, Mizuho International plc and SMBC Nikko Capital Markets Limited and their respective successors or a Primary Bond Dealer selected by any of them, and their respective successors; provided however, that if any of the foregoing shall cease to be a broker or dealer of, and/or market maker in, German government bonds (a "Primary Bond Dealer"), the Company will substitute therefor another nationally recognized investment banking firm that is a Primary Bond Dealer. "Remaining Scheduled Payments" means, with respect to each Note to be redeemed, the remaining scheduled payments of the principal thereof and interest thereon that would be due after the related Redemption Date but for such redemption (assuming, for this purpose, that the Notes matured on the Par Call Date); provided however, that, if such Redemption Date is not an interest payment date with respect to such Note, the amount of the next succeeding scheduled interest payment thereon will be deemed to be reduced by the amount of interest accrued thereon to such Redemption Date.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax;

	(d) being or having been a ‘‘10-percent shareholder’’ of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code of 1986, as amended (the “Code”) or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent; (8) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof;

	(9) with respect to any payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for additional amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; and (10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of, or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, and the term "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after February 2, 2022, the Company becomes, or based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 KR1
NYSE Trading Symbol	IBM 34

16. 1.200% Notes due 2040

Title/Description of Debt Issuance:	1.200% Notes due 2040
Date of Issuance:	February 11, 2020
Maturity Date	February 11, 2040
Principal Amount of Notes originally issued	€850,000,000(Euro)
Principal Amount of Notes currently outstanding	€850,000,000 (Euro)
Interest Payment Dates	Annually on February 11
First Interest Payment Date	February 11, 2021
Coupon	1.200% per annum

Optional Redemption	This Note will be redeemable, as a whole or in part, at the Company's option, at any time or from time to time, on at least 30 days, but not more than 60 days, prior notice to the holder of this Note given in accordance with the provisions of the Indenture, at a redemption price equal to the greater of: (i) 100% of the principal amount of the Notes to be redeemed; or (ii) the Optional Redemption Price, plus, in each case, accrued and unpaid interest on this Note to, but excluding, the Redemption Date.

	"Optional Redemption Price" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the yield (as calculated by the Trustee) on this Note, if it were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the yield on such dealing day of the Reference Bond on the basis of the average of four quotations of the average midmarket annual yield to maturity of the Reference Bond prevailing at 11:00 a.m. (Central European time) on such dealing day as determined by the Trustee plus 0.20%. "Reference Bond" means, in relation to any Optional Redemption Price calculation, the German Government DBR 4 ¼% due July 4, 2039, or if such bond is no longer in issue, such other European government bond as the Trustee may, with the advice of three brokers of, and/or market makers in, European government bonds selected by the Trustee, determine to be appropriate for determining the Optional Redemption Price. On and after the Redemption Date, interest will cease to accrue on this Note or any portion of this Note called for redemption (unless we default in the payment of the redemption price and accrued and unpaid interest). On or before the Redemption Date, we will deposit with a paying agent (or the Trustee) money sufficient to pay the redemption price of and accrued and unpaid interest on any portion of this Note to be redeemed on that date. If fewer than all of the Notes of this series are to be redeemed, the Notes to be redeemed shall be selected by the Trustee by a method the Trustee deems to be fair and appropriate.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Note such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Notes to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Note to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply:

	(1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as: (a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a ‘‘10-percent shareholder’’ of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code of 1986, as amended (the “Code”) or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Notes, or a portion of the Notes, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal of or interest on any Notes, if such payment can be made without such withholding by any other paying agent;

	(8) to any taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code (or any amended or successor version of such Sections), any Treasury regulations promulgated thereunder, any official interpretations thereof or any agreements entered into in connection with the implementation thereof; (9) with respect to any payment to the extent such payment could have been made without such deduction or withholding if the holder or beneficial owner of the Notes had presented the Notes for payment (where presentation is permitted or required for payment) within 30 days after the date on which such payment became due and payable or date on which payment thereof is duly provided for, whichever is later, except for additional amounts with respect to taxes that would have been imposed had the Holder or beneficial owner presented the Notes for payment within such 30-day period; and (10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Note is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Note. Except as specifically provided in this Note, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Note, the term "United States" means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, and the term "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after February 4, 2020, the Company becomes, or based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Note, then the Company may at its option redeem, in whole, but not in part, this Note on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Note to the date fixed for redemption.
Minimum Denominations	The Notes are issuable in registered form without coupons in denominations of €100,000 and any integral multiple of €1,000 in excess thereof.
CUSIP	459200 KG5
NYSE Trading Symbol	IBM 40

17. 7.00% Debentures due 2025

Title/Description of Debt Issuance:	7.00% Debentures due 2025

Date of Issuance:	October 30, 1995
Maturity Date	October 30, 2025
Principal Amount of Debentures originally issued	$600,000,000
Principal Amount of Debentures currently outstanding	$600,000,000
Interest Payment Dates	April 30 and October 30
First Interest Payment Date	April 30, 1996
Coupon	7.00% per annum
Optional Redemption	The Debentures may be redeemed as a whole or in part, at the option of the Company at any time, upon mailing a notice of such redemption not less than 30 nor more than 60 days prior to the date fixed for redemption to the holders of the Debentures due 2025 at their last registered addresses, all as provided in the Indenture, at a redemption price equal to the greater of (i) 100% of the principal amount of such Debentures due 2025 and (ii) the sum of the present values of the remaining scheduled payments of principal and interest thereon discounted to the redemption date on a semiannual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 12.5 basis points, plus in each case accrued interest thereon on the date of redemption. "Treasury Rate" means, with respect to any redemption date, the rate per annum equal to the semiannual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date.

	"Comparable Treasury Issue" means the United States Treasury security selected by an Independent Investment Banker as having a maturity comparable to the remaining term of the Debentures due 2025 to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of such Debentures. "Independent Investment Banker" means one of the Reference Treasury Dealers appointed by the Trustee after consultation with the Company. "Comparable Treasury Price" means with respect to any redemption date, (i) the average of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) on the third business day preceding such redemption date, as set forth in the daily statistical release (or any successor release) published by the Federal Reserve Bank of New York and designated "Composite 3:30 p.m. Quotations for U.S. Government Securities" or (ii) if such release (or any successor release) is not published or does not contain such prices on such business day, (A) the average of the Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest such Reference Treasury Dealer Quotations, or (B) if the Trustee obtains fewer than four such Reference Treasury Deal Quotations, the average of all such Quotations. "Reference Treasury Dealer Quotations" means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Trustee, of the bid and asked prices for the Comparable Treasury Issue (expected in each case as a percentage of its principal amount) quoted in writing to the Trustee by such Reference Treasury Dealer at 5:00 p.m. on the third business day preceding such redemption date. "Reference Treasury Dealer" means each of Merrill Lynch, Pierce, Fenner & Smith Incorporated, CS First Boston Corporation, Goldman, Sachs & Co., J.P. Morgan Securities Inc., Morgan Stanley & Co. Incorporated, Salomon Brothers Inc and their respective successors; provided, however, that if any of the foregoing shall cease to be a primary U.S. Government securities dealer in New York City (a "Primary Treasury Dealer"), the Company shall substitute therefor another Primary Treasury Dealer.
Minimum Denominations	The Debentures due 2025 are issuable in registered form without coupons in denominations of $1,000 and any integral multiple of $1,000.
CUSIP	459200 AM3
NYSE Trading Symbol	IBM 25

18. 6.22% Debentures due 2027

Title/Description of Debt Issuance:	6.22% Debentures due 2027
Date of Issuance:	August 4, 1997
Maturity Date	August 1, 2027
Principal Amount of Debentures originally issued	$500,000,000
Principal Amount of Debentures currently outstanding	$468,574,000
Interest Payment Dates	February 1 and August 1
First Interest Payment Date	February 1, 1998
Coupon	6.22% per annum
Optional Redemption	The Debentures may be redeemed as a whole or in part, at the option of the Company at any time on or after August 2, 2004, upon mailing a notice of such redemption not less than 30 nor more than 60 days prior to the date fixed for redemption to the holders of the Debentures at their last registered addresses, all as provided in the Indenture, at a redemption price equal to the greater of (i) 100% of the principal amount of the Debentures to be redeemed and (ii) the sum of the present values of the Remaining Scheduled Payments thereon discounted to the redemption date on a semiannual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 10 basis points, plus in either case accrued interest on the principal amount being redeemed to the date of redemption. “Treasury Rate” means, with respect to any redemption date, the rate per annum equal to the semiannual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date. “Comparable Treasury Issue” means the United States Treasury security selected by an Independent Investment Banker as having a maturity comparable to the remaining term of the Debentures to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of such Debentures. “Independent Investment Banker” means one of the Reference Treasury Dealers appointed by the Trustee after consultation with the Company.

	"Comparable Treasury Price" means with respect to any redemption date, (i) the average of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) on the third business day preceding such redemption date, as set forth in the daily statistical release (or any successor release) published by the Federal Reserve Bank of New York and designated "Composite 3:30 p.m. Quotations for U.S. Government Securities" or (ii) if such release (or any successor release) is not published or does not contain such prices on such business day, (A) the average of the Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest such Reference Treasury Dealer Quotations, or (B) if the Trustee obtains fewer than four such Reference Treasury Deal Quotations, the average of all such Quotations. "Reference Treasury Dealer Quotations" means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Trustee, of the bid and asked prices for the Comparable Treasury Issue (expected in each case as a percentage of its principal amount) quoted in writing to the Trustee by such Reference Treasury Dealer at 5:00 p.m. on the third business day preceding such redemption date. "Reference Treasury Dealer" means each of Morgan Stanley & Co. Incorporated, Bear, Stearns & Co. Inc., Goldman, Sachs & Co., Lehman Brothers Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated, Salomon Brothers Inc, and their respective successors; provided, however, that if any of the foregoing shall cease to be a primary U.S. Government securities dealer in New York City (a "Primary Treasury Dealer"), the Company shall substitute therefor another Primary Treasury Dealer. "Remaining Scheduled Payments" means, with respect to any Debenture, the remaining scheduled payments of the principal thereof to be redeemed and interest thereon that would be due after the related redemption date but for such redemption; provided, however, that, if such redemption date is not an interest payment date with respect to such Debenture, the amount of the next succeeding scheduled interest payment thereon will be reduced by the amount of interest accrued thereon to such redemption date.
Investor Redemption Option (expired in 2004)	The Debentures will be redeemable on August 1, 2004, at the option of the holders thereof, at 100% of their principal amount, together with interest payable to the date of redemption. Less than the entire principal amount of any Debenture may be redeemed, provided the principal amount which is to be redeemed is equal to $1,000 or an integral multiple of $1,000. The Company must receive at the principal office of the Paying Agent, during the period from and including June 1, 2004 to and including July 1, 2004: (i) the Debenture with the form entitled "Option to Elect Repayment" on the reverse of the Debenture duly completed; or (ii)(x) a telegram, facsimile

	transmission or letter form a member of a national securities exchange or the National Association of Securities Dealers, Inc., or a commercial bank or a trust company in the United States of America, setting forth the name of the registered holder of the Debenture, the principal amount of the Debenture, the amount of the Debenture to be repaid, a statement that the option to elect repayment is being exercised thereby and a guarantee that the Debenture to be repaid with the form entitled "Option to Elect Repayment" on the reverse of the Debenture duly completed, will be received by the Company not later than five business days after the date of such telegram, facsimile transmission or letter; and (y) such Debenture and form duly completed are received by the Company by such fifth business day. Any such notice received by the Company during the period from and including June 1, 2004 to and including July 1, 2004 shall be irrevocable. All questions as to the validity, eligibility (including time of receipt) and the acceptance of any Debenture for repayment will be determined by the Company, whose determination will be final and binding. For all purposes of this paragraph, if August 1, 2004 is not a business day, it shall be deemed to refer to the next succeeding business day.
Minimum Denominations	The Debentures are issuable in registered form without coupons in denominations of $1,000 and any integral multiple of $1,000.
CUSIP	459200 AR2
NYSE Trading Symbol	IBM 27

19. 6.50% Debentures due 2028

Title/Description of Debt Issuance:	6.50% Debentures due 2028
Date of Issuance:	January 9, 1998
Maturity Date	January 15, 2028
Principal Amount of Debentures originally issued	$700,000,000
Principal Amount of Debentures currently outstanding	$313,190,000
Interest Payment Dates	January 15 and July 15 of each year
First Interest Payment Date	July 15, 1998
Coupon	6.50% per annum

Optional Redemption	The Debentures may be redeemed as a whole or in part, at the option of the Company at any time, upon mailing a notice of such redemption not less than 30 nor more than 60 days prior to the date fixed for redemption to the holders of the Debentures at their last registered addresses, all as provided in the Indenture, at a redemption price equal to the greater of(i) 100% of the principal amount of the Debentures to be redeemed and (ii) the sum of the present values of the Remaining Scheduled Payments thereon discounted to the redemption date on a semiannual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 12.5 basis points, plus in either case accrued interest on the principal amount being redeemed to the date of redemption. "Treasury Rate" means, with respect to any redemption date, the rate per annum equal to the semiannual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date. "Comparable Treasury Issue" means the United States Treasury security selected by an Independent Investment Banker as having a maturity comparable to the remaining term of the Debentures to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of such Debentures. "Independent Investment Banker" means one of the Reference Treasury Dealers appointed by the Trustee after consultation with the Company. "Comparable Treasury Price" means with respect to any redemption date,(i) the average of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) on the third business day preceding such redemption date, as set forth in the daily statistical release (or any successor release) published by the Federal Reserve Bank of New York and designated "Composite 3:30 p.m. Quotations for U.S. Government Securities" or (ii) if such release (or any successor release) is not published or does not contain such prices on such business day, (A) the average of the Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest such Reference Treasury Dealer Quotations, or (B) if the Trustee obtains fewer than four such Reference Treasury Deal Quotations, the average of all such Quotations. "Reference Treasury Dealer Quotations" means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Trustee, of the bid and asked prices for the Comparable Treasury Issue (expected in each case as a percentage of its principal amount) quoted in writing to the Trustee by such Reference Treasury Dealer at 5:00 p.m. on the third business day preceding such redemption date.

	"Reference Treasury Dealer" means each of, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Bear, Stearns & Co. Inc., Chase Securities Inc., Credit Suisse First Boston Corporation, Goldman, Sachs & Co., Lehman Brothers Inc. and Morgan Stanley & Co. Incorporated, and their respective successors; provided, however, that if any of the foregoing shall cease to be a primary U.S. Government securities dealer in New York City (a "Primary Treasury Dealer"), the Company shall substitute therefor another Primary Treasury Dealer. "Remaining Scheduled Payments" means, with respect to any Debenture, the remaining scheduled payments of the principal thereof to be redeemed and interest thereon that would be due after the related redemption date but for such redemption; provided, however, that, if such redemption date is not an interest payment date with respect to such Debenture, the amount of the next succeeding scheduled interest payment thereon will be reduced by the amount of interest accrued thereon to such redemption date.
Minimum Denominations	The Debentures are issuable in registered form without coupons in denominations of $1,000 and any integral multiple of $1,000.
CUSIP	459200 AS0
NYSE Trading Symbol	IBM 28

20. 5.875% Debentures due 2032

Title/Description of Debt Issuance:	5.875% Debentures due 2032
Date of Issuance:	November 27, 2002
Maturity Date	November 29, 2032
Principal Amount of Debentures originally issued	$600,000,000
Principal Amount of Debentures currently outstanding	$600,000,000
Interest Payment Dates	May 29 and November 29
First Interest Payment Date	May 29, 2003
Coupon	5.875% per annum
Optional Redemption	The Debentures may be redeemed as a whole or in part, at the option of the Company at any time, upon mailing a notice of such redemption not less than 30 nor more than 60 days prior to the date fixed for redemption to the holders of the Debentures at their last registered addresses, all as provided in the Indenture, at a redemption price equal to the greater of (i) 100% of the principal amount of the Debentures to be redeemed and (ii) the sum of the present values of the Remaining Scheduled Payments thereon discounted to the redemption date on a semiannual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 15 basis points, plus in either case accrued interest on the principal amount being redeemed to the date of redemption. "Treasury Rate" means, with respect to any redemption date, (i) the yield, under the heading which represents the average for the immediately preceding week, appearing in the most recently published statistical release designated "H.15(519)" or any successor publication which is published weekly by the Board of Governors of the Federal Reserve System and which establishes yields on actively traded United States Treasury securities adjusted to constant maturity under the caption "Treasury Constant Maturities," for the maturity corresponding to the Comparable Treasury Issue (if no maturity is within three months before or after the maturity date for the Debentures, yields for the two published maturities most closely corresponding to the Comparable Treasury Issue shall be

	determined and the Treasury Rate shall be interpolated or extrapolated from such yields on a straight line basis, rounding to the nearest month) or (ii) if such release (or any successor release) is not published during the week preceding the calculation date or does not contain such yields, the rate per annum equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue, calculated using a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date. The Treasury Rate shall be calculated on the third Business Day (as defined in the Indenture) preceding the redemption date. “Comparable Treasury Issue” means the United States Treasury security selected by an Independent Investment Banker as having a maturity comparable to the remaining term of the Debentures to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of such Debentures. “Independent Investment Banker” means one of the Reference Treasury Dealers appointed by the Company. “Comparable Treasury Price” means with respect to any redemption date, (i) the average of the Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest such Reference Treasury Dealer Quotations, or (ii) if the Trustee obtains fewer than four such Reference Treasury Deal Quotations, the average of all such quotations. “Reference Treasury Dealer Quotations” means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Trustee, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Trustee by such Reference Treasury Dealer at 3:30 p.m. New York City time on the third Business Day (as defined in the Indenture) preceding such redemption date. “Reference Treasury Dealer” means each of J.P. Morgan Securities Inc., Morgan Stanley & Co. Incorporated, Salomon Smith Barney Inc. and one other treasury dealer selected by the Company and their respective successors; provided, however, that if any of the foregoing shall cease to be a primary U.S. Government securities dealer (a “Primary Treasury Dealer”), the Company shall substitute therefor another Primary Treasury Dealer. “Remaining Scheduled Payments” means, with respect to any Debenture, the remaining scheduled payments of the principal thereof to be redeemed and interest thereon that would be due after the related redemption date but for such redemption; provided, however, that, if such redemption date is not an interest payment date with respect to such Debenture, the amount of the next succeeding scheduled interest payment thereon will be reduced by the amount of interest accrued thereon to such redemption date.
Payment of Additional Amounts	The Company will, subject to the exceptions and limitations set forth below, pay as additional interest on this Debenture such additional amounts as are necessary in order that the net payment by the Company or a paying agent of the principal of and interest on the Debentures to a holder who is not a United States person (as defined below), after deduction for any present or future tax, assessment or other governmental charge of the United States or a political subdivision or taxing authority of or in the United States, imposed by withholding with respect to the payment, will not be less than the amount provided in this Debenture to be then due and payable; provided, however, that the foregoing obligation to pay additional amounts shall not apply: (1) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of the holder, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as:

	(a) being or having been present or engaged in a trade or business in the United States or having had a permanent establishment in the United States; (b) having a current or former relationship with the United States, including a relationship as a citizen or resident of the United States; (c) being or having been a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid United States federal income tax; (d) being or having been a "10-percent shareholder" of the Company as defined in section 871(h)(3) of the United States Internal Revenue Code or any successor provision; or (e) being a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; (2) to any holder that is not the sole beneficial owner of the Debentures, or a portion of the Debentures, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment; (3) to any tax, assessment or other governmental charge that is imposed otherwise or withheld solely by reason of a failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Debentures, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge; (4) to any tax, assessment or other governmental charge that is imposed otherwise than by withholding by the Company or a paying agent from the payment; (5) to any tax, assessment or other governmental charge that is imposed or withheld solely by reason of a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later; (6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or similar tax, assessment or other governmental charge; (7) to any tax, assessment or other governmental charge required to. be withheld by any paying agent from any payment of principal of or interest on any Debentures, if such payment can be made without such withholding by any other paying agent;

	(8) to any Debentures where such withholding is imposed on a payment to an individual and is required to be made pursuant to any European Union Directive on the taxation of savings implementing the conclusions of the ECOFIN Council meeting of 26th to 27th November, 2000 or any law implementing or complying with, or introduced in order to conform to, such Directive; (9) to any Debentures presented for payment by, or on behalf of, a holder who would have been able to avoid such withholding or deduction by presenting the relevant Debentures to another paying agent in a member state of the European Union; or (10) in the case of any combination of items (1), (2), (3), (4), (5), (6), (7), (8) and (9). This Debenture is subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable to this Debenture. Except as specifically provided in this Debenture, the Company shall not be required to make any payment with respect to any tax, assessment or other governmental charge imposed by any government or a political subdivision or taxing authority of or in any government or political subdivision. As used in this Debenture, the term "United States" means the United States of America (including the states and the District of Columbia) and its territories, possessions and other areas subject to its jurisdiction, "United States person" means any individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia (other than a partnership that is not treated as a United States person under any applicable Treasury regulations), or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.
Redemption for Tax Reasons	If, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated under the laws) of the United States (or any political subdivision or taxing authority of or in the United States), or any change in, or amendments to, an official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective on or after November 20, 2002, the Company becomes or, based upon a written opinion of independent counsel selected by the Company, will become obligated to pay additional amounts as described above with respect to this Debenture, then the Company may at its option redeem, in whole, but not in part, this Debenture on not less than 30 nor more than 60 days prior notice, at a redemption price equal to 100% of its principal amount, together with interest accrued but unpaid on this Debenture to the date fixed for redemption.

Minimum Denominations	The Debentures are issuable in registered form without coupons in denominations of $1,000 and any integral multiple of $1,000
CUSIP	459200 BB6
NYSE Trading Symbol	IBM 32D

21. 7.00% Debentures due 2045

Title/Description of Debt Issuance:	7.00% Debentures due 2045
Date of Issuance:	October 30, 1995
Maturity Date	October 30, 2045
Principal Amount of Debentures originally issued	$150,000,000
Principal Amount of Debentures currently outstanding	$26,955,000
Interest Payment Dates	April 30 and October 30
First Interest Payment Date	April 30, 1996
Coupon	7.00% per annum
Optional Redemption	The Debentures may be redeemed as a whole or in part, at the option of the Company at any time, upon mailing a notice of such redemption not less than 30 nor more than 60 days prior to the date fixed for redemption to the

	holders of the Debentures due 2045 at their last registered addresses, all as provided in the Indenture, at a redemption price equal to the greater of (i) 100% of the principal amount of such Debentures due 2045 and (ii) the sum of the present values of the remaining scheduled payments of principal and interest thereon discounted to the redemption date on a semiannual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 12.5 basis points, plus in each case accrued interest thereon on the date of redemption. “Treasury Rate” means, with respect to any redemption date, the rate per annum equal to the semiannual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date. “Comparable Treasury Issue” means the United States Treasury security selected by an Independent Investment Banker as having a maturity comparable to the remaining term of the Debentures due 2045 to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of such Debentures. “Independent Investment Banker” means one of the Reference Treasury Dealers appointed by the Trustee after consultation with the Company. “Comparable Treasury Price” means with respect to any redemption date, (i) the average of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) on the third business day preceding such redemption date, as set forth in the daily statistical release (or any successor release) published by the Federal Reserve Bank of New York and designated “Composite 3:30 p.m. Quotations for U.S. Government Securities” or (ii) if such release (or any successor release) is not published or does not contain such prices on such business day, (A) the average of the Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest such Reference Treasury Dealer Quotations, or (B) if the Trustee obtains fewer than four such Reference Treasury Deal Quotations, the average of all such Quotations. “Reference Treasury Dealer Quotations” means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Trustee, of the bid and asked prices for the Comparable Treasury Issue (expected in each case as a percentage of its principal amount) quoted in writing to the Trustee by such Reference Treasury Dealer at 5:00 p.m. on the third business day preceding such redemption date. “Reference Treasury Dealer” means each of Merrill Lynch, Pierce, Fenner & Smith Incorporated, CS First Boston Corporation, Goldman, Sachs & Co., J.P. Morgan Securities Inc., Morgan Stanley & Co. Incorporated, Salomon Brothers Inc and their respective successors; provided, however, that if any of the foregoing shall cease to be a primary U.S. Government securities dealer in New York City (a “Primary Treasury Dealer”), the Company shall substitute therefor another Primary Treasury Dealer.
Minimum Denominations	The Debentures are issuable in registered form without coupons in denominations of $1,000 and any integral multiple of $1,000.

CUSIP	459200 AN1
NYSE Trading Symbol	IBM 45

22. 7.125% Debentures due 2096

Title/Description of Debt Issuance:	7.125% Debentures due 2096
Date of Issuance:	December 6, 1996
Maturity Date	December 1, 2096
Principal Amount of Debentures originally issued	$850,000,000
Principal Amount of Debentures currently outstanding	$316,390,000
Interest Payment Dates	June 1 and December 1
First Interest Payment Date	June 1, 1997
Coupon	7.125% per annum
Optional Redemption	The Debentures may be redeemed as a whole or in part, at the option of the Company at any time, at a redemption price equal to the greater of (i) 100% of the principal amount of the Debentures to be redeemed and (ii) the sum of the present values of the Remaining Scheduled Payments (as hereinafter defined) thereon discounted to the redemption date on a semiannual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 15 basis points, plus in either case accrued interest on the principal amount being redeemed to the date of redemption. "Treasury Rate" means, with respect to any redemption date, the rate per annum equal to the semiannual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date. "Comparable Treasury Issue" means the United States Treasury security selected by an Independent Investment Banker as having a maturity comparable to the remaining term of the Debentures to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of such Debentures.

	"Independent Investment Banker" means one of the Reference Treasury Dealers appointed by the Trustee after consultation with the Company. "Comparable Treasury Price" means, with respect to any redemption date, (i) the average of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) on the third business day preceding such redemption date, as set forth in the daily statistical release (or any successor release) published by the Federal Reserve Bank of New York and designated "Composite 3:30 p.m. Quotations for U.S. Government Securities" or (ii) if such release (or any successor release) is not published or does not contain such prices on such business day, (A) the average of the Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest such Reference Treasury Dealer Quotations, or (B) if the Trustee obtains fewer than four such Reference Treasury Dealer Quotations, the average of all such Quotations. "Reference Treasury Dealer Quotations" means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Trustee, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Trustee by such Reference Treasury Dealer at 5:00 p.m. on the third business day preceding such redemption date. "Reference Treasury Dealer" means each of Salomon Brothers Inc, Chase Securities Inc., CS First Boston Corporation, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Morgan Stanley & Co. Incorporated and their respective successors; provided, however, that if any of the foregoing shall cease to be a primary U.S. Government securities dealer in New York City (a "Primary Treasury Dealer"), the Company shall substitute therefor another Primary Treasury Dealer. "Remaining Scheduled Payments" means, with respect to any Debenture, the remaining scheduled payments of the principal thereof to be redeemed and interest thereon that would be due after the related redemption date but for such redemption; PROVIDED, HOWEVER, that, if such redemption date is not an interest payment date with respect to such Debenture, the amount of the next succeeding scheduled interest payment thereon will be reduced by the amount of interest accrued thereon to such redemption date. Notice of any redemption will be mailed at least 30 days but not more than 60 days before the redemption date to each holder of Debentures to be redeemed. Unless the Company defaults in payment of the redemption price, on and after the redemption date interest will cease to accrue on the Debentures or portions thereof called for redemption.
Conditional Right to Shorten Maturity	The Company intends to deduct interest paid on the Debentures for Federal income tax purposes. However, the Clinton Administration's budget proposal for Fiscal Year 1997, released on March 19, 1996, contained a series of proposed tax law changes that, among other things, would prohibit an issuer from deducting interest payments on debt instruments with a maturity of more than 40 years. On March 29, 1996, the Chairmen of the Senate Finance Committee and the House Ways and Means Committee

	issued a statement to the effect that this proposal, if enacted, would not be effective prior to the date of “appropriate congressional action.” There can be no assurance, however, that this proposal or similar legislation affecting the Company's ability to deduct interest paid on the Debentures will not be enacted in the future or that any such legislation would not have a retroactive effective date. Upon occurrence of a Tax Event, as defined below, the Company will have the right to shorten the maturity of the Debentures to the extent required, in the opinion of a nationally recognized independent tax counsel, such that, after the shortening of the maturity, interest paid on the Debentures will be deductible for Federal income tax purposes. There can be no assurance that the Company would not exercise its right to shorten the maturity of the Debentures upon the occurrence of such a Tax Event. In the event that the Company elects to exercise its right to shorten the maturity of the Debentures on the occurrence of a Tax Event, the Company will mail a notice of shortened maturity to each holder of record of the Debentures by first-class mail not more than 60 days after the occurrence of such Tax Event, stating the new maturity date of the Debentures. Such notice shall be effective immediately upon mailing. The Company believes that the Debentures should constitute indebtedness for Federal income tax purposes under current law and an exercise of its right to shorten the maturity of the Debentures would not be a taxable event to holders. Prospective investors should be aware, however, that the Company's exercise of its right to shorten the maturity of the Debentures will be a taxable event to holders if the Debentures are treated as equity for purposes of Federal income taxation before the maturity is shortened, assuming that the Debentures of shortened maturity are treated as debt for such purposes. “Tax Event” means that the Company shall have received an opinion of a nationally recognized independent tax counsel to the effect that on or after the date of the issuance of the Debentures, as a result of (a) any amendment to, clarification of, or change (including any announced prospective change) in laws, or any regulations thereunder, of the United States, (b) any judicial decision, official administrative pronouncement, ruling, regulatory procedure, notice or announcement, including any notice or announcement of intent to adopt such procedures or regulations (an “Administrative Action”), or (c) any amendment to, clarification of, or change in the official position or the interpretation of such Administrative Action or judicial decision that differs from the theretofore generally accepted position, in each case, on or after, the date of the issuance of the Debentures, such change in tax law creates a more than insubstantial risk that interest paid by the Company on the Debentures is not, or will not be, deductible, in whole or in part, by the Company for purposes of United States Federal income tax.
Minimum Denominations	The Debentures are issuable in registered form without coupons in denominations of $1,000 and any integral multiple of $1,000.
CUSIP	459200 AP6
NYSE Trading Symbol	IBM 96

Exhibit 10.1

International Business Machines Corporation ("IBM")

Equity Award Agreement

Plan	**[IBM 1999 Long-Term Performance Plan (the "Plan")]**
Award Type	**[Stock Options, Restricted Stock, Restricted Stock Units, Cash-Settled Restricted Stock Units, SARs]**
Purpose	The purpose of this Award is to retain selected employees and executives. You recognize that this Award represents a potentially significant benefit to you and is awarded for the purpose stated here.
Awarded to **Home Country** **Global ID**	**Sample** **United States (USA) [Employee ID]** **[Global ID]**
Award Agreement	This Equity Award Agreement, together with the "Terms and Conditions of Your Equity Award Effective February 1, 2023" ("Terms and Conditions") document and the Plan [*http://w3.ibm.com/hr/exec/comp/eq_prospectus.shtml*,] [https://w3cms.s3-api.us-geo.objectstorage.softlayer.net/inline-files/LTPP_1999_august_2007_prospectus.pdf], both of which are incorporated herein by reference, together constitute the entire agreement between you and IBM with respect to your Award. This Equity Award Agreement shall be governed by the laws of the State of New York, without regard to conflicts or choice of law rules or principles.
Grant	Date of Grant: [**Month Date, Year**] **[Exercise Price: $XX]** Number of **[Options/Units/Shares/SARs]** Awarded: [**XX**]
Vesting	This Award vests as set forth below, subject to your continued employment with the Company as described in the Terms and Conditions document.

Options/Units/Shares/SARs	Date
[number of shares]	**[month date year]**
[number of shares]	**[month date year]**
["]	["]

Options expire, subject to the Terms and Conditions document, on: [month date year]

Terms and Conditions of Your Equity Award

Refer to the Terms and Conditions document [*http://w3.ibm.com/hr/exec/comp/eq_prospectus.shtml]* [attached] for an explanation of the terms and conditions applicable to your Award, including those relating to:

- Cancellation and rescission of awards (also see below)
- Jurisdiction, governing law, expenses, taxes and administration
- Non-solicitation of Company employees and clients, if applicable
- Treatment of your Award in the event of death or disability or leave of absence
- Treatment of your Award upon termination of employment, including retirement or for cause

It is strongly recommended that you print the Terms and Conditions document for later reference.

Cancellation and Rescission	You understand that IBM may cancel, modify, rescind, suspend, withhold or otherwise limit or restrict this Award in accordance with the terms of the Plan. You understand that the Rescission Period that has been established for this Award is 12 months. Refer to the Terms and Conditions document and the Plan for further details.
Data Privacy, Electronic Delivery	By accepting this Award, you agree that data, including your personal data, necessary to administer this Award may be exchanged among IBM and its subsidiaries and affiliates as necessary, and with any vendor engaged by IBM to administer this Award, subject to the Terms and Conditions document; you also consent to receiving information and materials in connection with this Award or any subsequent awards under IBM's long-term performance plans, including without limitation any prospectuses and plan documents, by any means of electronic delivery available now and/or in the future (including without limitation by e-mail, by Web site access and/or by facsimile), such consent to remain in effect unless and until revoked in writing by you.
Extraordinary Compensation	Your participation in the Plan is voluntary. The value of this Award is an extraordinary item of income, is not part of your normal or expected compensation and shall not be considered in calculating any severance, redundancy, end of service payments, bonus, long-service awards, pension, retirement or other benefits or similar payments. The Plan is discretionary in nature. This Award is a one-time benefit that does not create any contractual or other right to receive additional awards or other benefits in the future. Future grants, if any, are at the sole grace and discretion of IBM, including but not limited to, the timing of the grant, the number of units and vesting provisions. This Equity Award Agreement is not part of your employment agreement, if any.
Accept Your Award	This Award is considered valid when you accept it. This Award will be cancelled unless you accept it by 11:59 p.m. Eastern time two business days prior to the first vesting date in the "Vesting" section of this Agreement. [By pressing the Accept button below to accept your Award, you acknowledge having received and read this Equity Award Agreement, the Terms and Conditions document and the Plan under which this Award was granted and] [To record your acceptance of the Award and your acknowledgment that you have received and read this Equity Award Agreement, the Terms and Conditions document and the Plan under which this Award was granted, you must electronically sign this Agreement via Adobe Sign. Further by accepting this Award] you agree (i) not to hedge the economic risk of this Award or any previously-granted outstanding awards, which includes entering into any derivative transaction on IBM securities (e.g., any short sale, put, swap, forward, option, collar, etc.), (ii) to comply with the terms of the Plan, this Equity Award Agreement and the Terms and Conditions document, including those provisions relating to cancellation and rescission of awards and jurisdiction and governing law, and (iii) that, unless you are an Illinois worker or resident (in which case any previous awards remain unaffected by this Award), by your acceptance of this Award, all awards previously granted to you under the Plan or other IBM Long-Term Performance Plans are subject to jurisdiction, governing law, expenses, taxes and administration section of the Terms and Conditions document (unless (A) you are, and have been for at least 30 days immediately preceding, a resident of or an employee in Massachusetts at the time of the termination of your employment with IBM; or (B) at the time of your termination of employment you primarily worked or lived in Colorado, in which case the jurisdiction, governing law, expenses, taxes and administration terms of your previous awards shall apply).

International Business Machines Corporation ("IBM")

Equity Award Agreement

Plan	**[IBM 1999 Long-Term Performance Plan (the "Plan")]**
Award Type	**Performance Share Units (PSUs)**
Purpose	The purpose of this Award is to retain selected executives. You recognize that this Award represents a potentially significant benefit to you and is awarded for the purpose stated here.
Awarded to **Home Country** **Global ID**	**Sample** **United States (USA) [Employee ID]** **[Global ID]**
Award Agreement	This Equity Award Agreement, together with the "Terms and Conditions of Your Equity Award Effective February 1, 2023" ("Terms and Conditions") document and the Plan [*http://w3.ibm.com/hr/exec/comp/eq_prospectus.html*,] [https://w3cms.s3-api.us-geo.objectstorage.softlayer.net/inline-files/LTPP_1999_august_2007_prospectus.pdf], both of which are incorporated herein by reference, together constitute the entire agreement between you and IBM with respect to your Award. This Equity Award Agreement shall be governed by the laws of the State of New York, without regard to conflicts or choice of law rules or principles.

Grant

Date of Grant	# PSUs Awarded	Performance Period	Date of Payout
[month day year]	[amount]	[dates]	[date]
[month day year]	[amount]	[dates]	[date]
["]	["]	["]	["]

Vesting

You can earn the PSUs awarded above based on IBM's performance in achieving cumulative business targets of IBM revenue, operating earnings per share and free cash flow, weighted 40/30/30 respectively, over the 3-year Performance Period applicable to the award. For any Performance Period(s) prior to January 1, 2021, the business targets and weightings of operating earnings per share and free cash flow will remain 70/30, respectively. Performance against each of the targets will be subject to separate payout calculations according to the following table (**which will be applied separately for each award of PSUs listed above**):

% of Target	<70%	70%	80%	90%	100%	110%	>120%
% of PSUs earned	0%	25%	50%	75%	100%	125%	150%

After the percentage of PSUs earned is determined, such percentage is further subject to a Relative Return on Invested Capital (ROIC) modifier over the three-year Performance Period that could result in (1) the percentage of PSUs earned being reduced up to 20 points if the performance falls below the S&P 500 Index median; or (2) the percentage of PSUs earned being increased up to 20 points when IBM exceeds the median performance of both the S&P 500 Index and the S&P Information Technology Index. The relative ROIC modifier has no effect on the percentage of PSUs earned when IBM's ROIC performance falls between the S&P 500 Index and the S&P Information Technology Index median. The final number of PSUs earned under this Award is generally determined after the ROIC modifier is applied. In the event the final percentage of PSUs earned is 0% based on IBM's performance in achieving cumulative business targets of operating earnings per share and free cash flow, the relative ROIC modifier would not apply.

Payout of Awards

Following the Date of Payout, the Company shall either (a) deliver to you a number of shares of Capital Stock equal to the number of your earned PSUs, or (b) make a cash payment to you equal to the Fair Market Value on the Date of Payout of the number of your earned PSUs at the end of the Performance Period, in either case, net of any applicable tax withholding, and the respective PSUs shall thereafter be cancelled.

All payouts under this Award are subject to the provisions of the Plan, this Agreement and the Terms and Conditions document, including those relating to the cancellation and rescission of awards.

International Business Machines Corporation (“IBM”)
Equity Award Agreement

Terms and Conditions of Your Equity Award

Refer to the Terms and Conditions document [http://w3.ibm.com/hr/exec/comp/eq_prospectus.shtml] [attached] for an explanation of the terms and conditions applicable to your Award, including those relating to:

- Cancellation and rescission of awards (also see below)
- Jurisdiction, governing law, expenses, taxes and administration
- Non-solicitation of Company employees and clients, if applicable
- Treatment of your Award in the event of death or disability or leave of absence
- Treatment of your Award upon termination of employment, including retirement or for cause,

(i) if you are on the performance team, or any successor team thereto, and (ii) under all other circumstances.

It is strongly recommended that you print the Terms and Conditions document for later reference.

Cancellation and Rescission

You understand that IBM may cancel, modify, rescind, suspend, withhold or otherwise limit or restrict this Award in accordance with the terms of the Plan, including, without limitation, canceling or rescinding this Award if you render services for a competitor prior to, or during the Rescission Period. You understand that the Rescission Period that has been established is 12 months. Refer to the Terms and Conditions document and the Plan for further details.

Data Privacy, Electronic Delivery

By accepting this Award, you agree that data, including your personal data, necessary to administer this Award may be exchanged among IBM and its subsidiaries and affiliates as necessary, and with any vendor engaged by IBM to administer this Award, subject to the Terms and Conditions document; you also consent to receiving information and materials in connection with this Award or any subsequent awards under IBM’s long-term performance plans, including without limitation any prospectuses and plan documents, by any means of electronic delivery available now and/or in the future (including without limitation by e-mail, by Web site access and/or by facsimile), such consent to remain in effect unless and until revoked in writing by you.

Extraordinary Compensation

Your participation in the Plan is voluntary. The value of this Award is an extraordinary item of income, is not part of your normal or expected compensation and shall not be considered in calculating any severance, redundancy, end of service payments, bonus, long-service awards, pension, retirement or other benefits or similar payments. The Plan is discretionary in nature. This Award is a one-time benefit that does not create any contractual or other right to receive additional awards or other benefits in the future. Future grants, if any, are at the sole grace and discretion of IBM, including but not limited to, the timing of the grant, the number of units and vesting provisions. This Equity Award Agreement is not part of your employment agreement, if any.

International Business Machines Corporation ("IBM")
Equity Award Agreement

Accept Your Award This Award is considered valid when you accept it. This Award will be cancelled unless you accept it by 11:59 p.m. Eastern time two business days prior to the end of the Performance Period in the "Grant" section of this Agreement. [By pressing the Accept button below to accept your Award, you acknowledge having received and read this Equity Award Agreement, the Terms and Conditions document and the Plan under which this Award was granted and] [To record your acceptance of the Award and your acknowledgment that you have received and read this Equity Award Agreement, the Terms and Conditions document and the Plan under which this Award was granted, you must electronically sign this Agreement via Adobe Sign. Further by accepting this Award] you agree (i) not to hedge the economic risk of this Award or any previously-granted outstanding awards, which includes entering into any derivative transaction on IBM securities (e.g., any short sale, put, swap, forward, option, collar, etc.), (ii) to comply with the terms of the Plan, this Equity Award Agreement and the Terms and Conditions document, including those provisions relating to cancellation and rescission of awards and jurisdiction and governing law, and (iii) that, unless you are an Illinois worker or resident, by your acceptance of this Award, all awards previously granted to you under the Plan or other IBM Long-Term Performance Plans are subject to (A) jurisdiction, governing law, expenses, taxes and administration section of the Terms and Conditions document (unless (1) you are, and have been for at least 30 days immediately preceding, a resident of or an employee in Massachusetts at the time of the termination of your employment with IBM or (2) at the time of your termination of employment you primarily worked or lived in Colorado, in which case the jurisdiction, governing law, expenses, taxes and administration terms of your previous awards shall apply) and (B) any cancellation, rescission or recovery required by applicable laws, rules, regulations or standards, including without limitation any requirements or standards of the U.S. Securities and Exchange Commission or the New York Stock Exchange.

IBM

TERMS AND CONDITIONS OF YOUR EQUITY AWARD: EFFECTIVE February 1, 2023

Terms and Conditions of Your Equity Award

Table of Contents

Terms and Conditions of Your Equity Award

Introduction

This document provides you with the terms and conditions of your Award that are in addition to the terms and conditions contained in your Equity Award Agreement for your specific Award. Also, your Award is subject to the terms and conditions in the governing plan document; the applicable document is indicated in your Equity Award Agreement and can be found at [http://w3.ibm.com/hr/exec/comp/eq_prospectus.shtml.

As an Award recipient, you can see a personalized summary of all your outstanding equity grants in the "Personal statement" section of the IBM executive compensation web site (http://w3.ibm.com/hr/exec/comp). This site also contains other information about long- term incentive awards, including copies of the prospectus (the governing plan document). If you have additional questions, click on the AskHR Chatbot.] [https://w3cms.s3-api.us-geo.objectstorage.softlayer.net/inline-files/LTPP_1999_august_2007_prospectus.pdf.]

How to Use This Document

Terms and conditions that apply to all awards in all countries can be found on page 6. Review these in addition to any award- or country-specific terms and conditions that may be listed. Once you have reviewed these general terms, check in your Equity Award Agreement for any award-specific and/or country-specific terms that apply to your Award.

Terms and Conditions of Your Equity Award:

Definition of Terms

The following are defined terms from the Long-Term Performance Plan, your Equity Award Agreement, or this Terms and Conditions document. These are provided for your information. In addition to this document, see the Plan prospectus and your Equity Award Agreement for more details.

"Awards" -- The grant of any form of stock option, stock appreciation right, stock or cash award, whether granted singly, in combination or in tandem, to a Participant pursuant to such terms, conditions, performance requirements, limitations and restrictions as the Committee may establish in order to fulfill the objectives of the Plan.

"Board" -- The Board of Directors of International Business Machines Corporation ("IBM").

"Capital Stock" -- Authorized and issued or unissued Capital Stock of IBM, at such par value as may be established from time to time.

"Committee" -- The committee designated by the Board to administer the Plan.

"Company" -- IBM and its affiliates and subsidiaries including subsidiaries of subsidiaries and partnerships and other business ventures in which IBM has an equity interest.

"Engage in or Associate with" includes, without limitation, engagement or association as a sole proprietor, owner, employer, director, partner, principal, joint venture, associate, employee, member, consultant, or contractor. This also includes engagement or association as a shareholder or investor during the course of your employment with the Company, and includes beneficial ownership of five percent (5%) or more of any class of outstanding stock of a competitor of the Company following the termination of your employment with the Company.

"Equity Award Agreement" -- The document provided to the Participant which provides the grant details.

"Fair Market Value" -- The average of the high and low prices of Capital Stock on the New York Stock Exchange for the date in question, provided that, if no sales of Capital Stock were made on said exchange on that date, the average of the high and low prices of Capital Stock as reported for the most recent preceding day on which sales of Capital Stock were made on said exchange.

"Participant" -- An individual to whom an Award has been made under the Plan. Awards may be made to any employee of, or any other individual providing services to, the Company. However, incentive stock options may be granted only to individuals who are

employed by IBM or by a subsidiary corporation (within the meaning of section 424(f) of the Code) of IBM, including a subsidiary that becomes such after the adoption of the Plan.

“Performance Team” -- For purposes of the Plan, the Performance Team refers to the team of IBM’s senior leaders who run IBM Business Units or geographies, including the chairman and CEO. The CEO selects and invites these senior leaders to join the Performance Team.

“Plan” -- Any IBM Long-Term Performance Plan.

“Termination of Employment” -- For the purposes of determining when you cease to be an employee for the cancellation of any Award, a Participant will be deemed to be terminated if the Participant is no longer employed by IBM or a subsidiary corporation that employed the Participant when the Award was granted unless approved by a method designated by those administering the Plan.

Terms and Conditions of Your Equity Award:

Provisions that apply to all Award types and all countries

The following terms apply to all countries and for all Award types (Restricted Stock Units, Cash-Settled Restricted Stock Units, Restricted Stock, Stock Options, Stock Appreciation Rights and Performance Share Units).

Cancellation and Rescission

All determinations regarding enforcement, waiver or modification of the cancellation and rescission and other provisions of the Plan and your Equity Award Agreement (including the provisions relating to termination of employment, death and disability) shall be made in IBM's sole discretion. Determinations made under your Equity Award Agreement and the Plan need not be uniform and may be made selectively among individuals, whether or not such individuals are similarly situated.

You agree that the cancellation and rescission provisions of the Plan and your Equity Award Agreement are reasonable and agree not to challenge the reasonableness of such provisions, even where forfeiture of your Award is the penalty for violation. Engaging in Detrimental Activity (as defined in the Plan) during employment or after your employment relationship has ended may result in cancellation or rescission of your Award.

The cancellation and rescission provisions of the Plan may be triggered by your acceptance of an offer to Engage in or Associate with any business which is or becomes competitive with the Company, or your engagement in competitive activities after your employment relationship with IBM has ended if: (i) on or prior to the grant date stated in your latest Equity Award Agreement you have entered into a Noncompetition Agreement with IBM; or (ii) the Award is a Retention Restricted Stock Unit award. Notwithstanding the above, the cancellation and rescission provisions of the Plan will apply to all Awards if during your employment with IBM you engage in any Detrimental Activity, including competitive activities, described in Section 13(a) of the Plan.

For the avoidance of doubt: (a) all other cancellation and rescission provisions of the Plan will apply to all Awards if after your employment relationship has ended with IBM but during the Rescission Period you engage in any Detrimental Activity described in Section 13(a) (excluding Section 13(a)(i)) of the Plan; and (b) the cancellation and rescission provisions of the Plan will apply to all Awards if during your employment with IBM you engage in any Detrimental Activity, including competitive activities, described in Section 13(a)of the Plan.

Jurisdiction, Governing Law, Expenses, Taxes and Administration

Your Equity Award Agreement shall be governed by, and construed in accordance with, the laws of the State of New York, without regard to its conflict of law rules. You agree that any action or proceeding with respect to your Equity Award Agreement shall

be brought exclusively in the state and federal courts sitting in New York County or, Westchester County, New York. You agree to the personal jurisdiction thereof, and irrevocably waive any objection to the venue of such action, including any objection that the action has been brought in an inconvenient forum.

If any court of competent jurisdiction finds any provision of your Equity Award Agreement, or portion thereof, to be unenforceable, that provision shall be enforced to the maximum extent permissible so as to effect the intent of the parties, and the remainder of your Equity Award Agreement shall continue in full force and effect.

If you or the Company brings an action to enforce your Equity Award Agreement and the Company prevails, you will pay all costs and expenses incurred by the Company in connection with that action and in connection with collection, including reasonable attorneys' fees.

If the Company, in its sole discretion, determines that it has incurred or will incur any obligation to withhold taxes as a result of your Award, without limiting the Company's rights under Section 9 of the Plan, the Company may withhold the number of shares that it determines is required to satisfy such liability and/or the Company may withhold amounts from other compensation to the extent required to satisfy such liability under federal, state, provincial, local, foreign or other tax laws. To the extent that such amounts are not withheld, the Company may require you to pay to the Company any amount demanded by the Company for the purpose of satisfying such liability.

If the Company changes the vendor engaged to administer the Plan, you consent to moving all of the shares you have received under the Plan that is in an account with such vendor (including unvested and previously vested shares), to the new vendor that the Company engages to administer the Plan. Such consent will remain in effect unless and until revoked in writing by you.

Terms and Conditions of Your Equity Award:

Provisions that apply to specific Award types for all countries

a. Restricted Stock Units ("RSUs") including Cash-Settled RSUs and Retention RSUs ("RRSUs")

All references in this document to RSUs include RRSUs, unless explicitly stated otherwise

i. All RSUs

Termination of Employment including Death, Disability and Leave of Absence

Termination of Employment

In the event you cease to be an employee (other than on account of death or are disabled as described in Section 12 of the Plan) prior to the Vesting Date(s) set in your Equity Award Agreement, all then unvested RSUs, including RRSUs, under your Award shall be canceled.

However, your unvested and/or outstanding RSUs, but not RRSUs, will continue to vest upon the termination of employment if all of the following criteria are met:

- You are either (i) determined to be a member of the Performance Team or any successor team thereto; or (ii) if not a member of the Performance Team, are designated by the Company as a Band A executive or a comparable band thereto, at the time of termination of employment;
- You have completed at least one year of active service since the award date of grant;
- You have reached age 55 with 15 years of service at the time of termination of employment (age 60 with 15 years of service for the Chairman and CEO); and
- Appropriate senior management, the Committee or the Board, as appropriate, do not exercise their discretion to cancel or otherwise limit the vesting of the RSUs.

Death or Disability

Upon your death all RSUs covered by this Agreement shall vest immediately and your Vesting Date shall be your date of death. If you are disabled as described in Section 12 of the Plan, your RSUs shall continue to vest according to the terms of your Award.

Leave of Absence

In the event of a management approved leave of absence, any unvested RSUs shall continue to vest as if you were an active employee of the Company, subject to the terms in this document and your Equity Award Agreement. If you return to active status, your unvested RSUs will continue to vest in accordance with the terms in this document and your Equity Award Agreement.

Dividend Equivalents

IBM shall not pay dividend equivalents on cash-settled or stock-settled unvested RSU awards.

ii. RSUs Other Than Cash-Settled RSUs and Cash-Settled RRSUs

Settlement of Award

Subject to Sections 12 and 13 of the Plan and the section “Termination of Employment including Death, Disability and Leave of Absence” above, upon the Vesting Date(s), or as soon thereafter as may be practicable but in no event later than March 15 of the following calendar year, IBM shall make a payment to Participant in shares of Capital Stock equal to the number of vested RSUs, subject to any applicable tax withholding requirements as described in Section 9 of the Plan, and the respective RSUs shall thereupon be canceled. RSUs are not shares of Capital Stock and do not convey any stockholder rights.

iii. Cash-Settled RSUs including Cash-Settled RRSUs

Settlement of Award

Subject to Sections 12 and 13 of the Plan and the section entitled “Termination of Employment including Death, Disability and Leave of Absence” above, upon the Vesting Date(s), or as soon thereafter as may be practicable but in no event later than March 15 of the following calendar year, the Company shall make a payment to Participant in cash equal to the Fair Market Value of the vested RSUs, subject to any applicable tax withholding requirements as described in Section 9 of the Plan, and the respective RSUs shall thereupon be canceled. Fair Market Value will be calculated in your home country currency at the exchange rate on the applicable Vesting Date using a commercially reasonable measure of exchange rate. RSUs are not shares of Capital Stock and do not convey any stockholder rights.

b. Restricted Stock

Settlement of Award

Subject to Sections 12 and 13 of the Plan and the paragraph entitled “Termination of Employment including Death, Disability or Leave of Absence” below, upon the Vesting Date(s), or as soon thereafter as may be practicable but in no event later than March 15 of the following calendar year, the shares of Restricted Stock awarded under your Equity Award Agreement will be deliverable to you, subject to any applicable tax withholding requirements as described in Section 9 of the Plan.

Terms and Conditions of Your Equity Award:
Provisions that apply to specific Award types for all countries

Termination of Employment including Death, Disability and Leave of Absence

Termination of Employment

In the event you cease to be an employee (other than on account of death or are disabled as described in Section 12 of the Plan) prior to the Vesting Date(s) in your Equity Award Agreement, all then unvested shares of Restricted Stock under your Award shall be canceled (unless your Equity Award Agreement provides otherwise).

Death or Disability

Upon your death all unvested shares of Restricted Stock covered by your Equity Award Agreement shall vest immediately and your Vesting Date shall be your date of death. If you are disabled as described in Section 12 of the Plan, your unvested shares of Restricted Stock shall continue to vest according to the terms of your Equity Award Agreement.

Leave of Absence

In the event of a management approved leave of absence, any unvested shares of Restricted Stock shall continue to vest as if you were an active employee of the Company, subject to the terms in this document and your Equity Award Agreement. If you return to active status, your unvested shares of Restricted Stock will continue to vest in accordance with the terms in this document and your Equity Award Agreement.

Dividends and Other Rights

During the period that the Restricted Stock is held by IBM hereunder, such stock will remain on the books of IBM in your name, may be voted by you, and any applicable dividends shall be paid to you. Shares issued in stock splits or similar events which relate to Restricted Stock then held by IBM in your name shall be issued in your name but shall be held by IBM under the terms hereof.

Transferability

Shares of Restricted Stock awarded under your Equity Award Agreement cannot be sold, assigned, transferred, pledged or otherwise encumbered prior to the vesting of your Award as set forth in your Equity Award Agreement and any such sale, assignment, transfer, pledge or encumbrance, or any attempt thereof, shall be void.

c. Stock Options ("Options") and Stock Appreciation Rights ("SARs")

i. All Option and SAR Awards

Termination of Employment including Death, Disability and Leave of Absence

Termination of Employment

In the event you cease to be an employee (other than on account of death or are disabled as described in Section 12 of the Plan):

- Any Options or SARs that are not exercisable as of the date your employment terminates shall be canceled immediately (unless your Equity Award Agreement provides otherwise), and

- Any Options or SARs that are exercisable as of the date your employment terminates (other than for cause) will remain exercisable for 90 days (not three months) after the date of termination, after which any unexercised Options or SARs are canceled; provided, however, if you are a banded executive when your employment with the Company terminates (other than for cause) after you have attained age 55 and completed at least 15 years of service with the Company at the time of termination, any Options or SARs that are exercisable as of the date your employment terminates shall remain exercisable for the full term as in your Equity Award Agreement (unless your Equity Award Agreement provides otherwise).

- However, provided you are not terminated for cause, your unvested Options or SARs will continue to vest upon termination of employment, and Options or SARs that are exercisable upon termination of employment or become exercisable in the future shall remain exercisable for the full term as stated in your Equity Award Agreement (unless your Equity Award Agreement provides otherwise), if all of the following criteria are met:

    - You are either (i) determined to be a member of the Performance Team or any successor team thereto, or (ii) if not a member of the Performance Team are designated by the Company as a Band A Executive or a comparable band thereto, at the time of termination of employment;

    - You have completed at least one year of active service since the award date of grant;

    - You have reached age 55 with 15 years of service at the time of termination of employment (age 60 with 15 years of service for the Chairman and CEO); and

- Appropriate senior management, the Committee or the Board, as appropriate, do not exercise their discretion to cancel or otherwise limit the vesting or exercisability of the Options or SARs.

Death or Disability

In the event of your death, all Options or SARs shall become fully exercisable and remain exercisable for their full term.

In the event you are disabled (as described in Section 12 of the Plan), any unvested Options or SARs shall continue to vest and be exercisable.

Leave of Absence

In the event of a management approved leave of absence, any unvested Options or SARs shall continue to vest and be exercisable as if you were an active employee of the Company, subject to the terms in this document and your Equity Award Agreement. If you return to active status, your Options or SARs will continue to vest and be exercisable in accordance with their terms. If you do not return to active status,

- Your unvested Options or SARs will be canceled immediately; and
- Your vested Options or SARs will be canceled on the later of the 91st day following your last day of active employment or the date of the termination of your leave of absence; provided, however, if you are a banded executive when your employment terminates (other than for cause) after you have attained age 55 and completed at least 15 years of service with the Company at the time of termination, any Options or SARs that are exercisable as of the date your employment terminates shall remain exercisable for the full term as in your Equity Award Agreement.

Termination of Employment for Cause

If your employment terminates for cause, all exercisable and not exercisable Options or SARs are canceled immediately.

ii. All SAR Awards

Settlement of Award

Upon exercise, the Company shall deliver an aggregate amount, in cash, equal to the excess of the Fair Market Value of a share of Capital Stock on the date of exercise over the Exercise Price set forth in your Equity Award Agreement multiplied by the number of SARs exercised, subject to any applicable tax withholding requirements as described in Section 9 of the Plan. The value of the Award will be calculated in your home country currency at the exchange rate on the date the Award becomes fully vested using a commercially reasonable measure of exchange rate.

d. Performance Share Units ("PSUs")

Termination of Employment, including Death and Disability, and Leave of Absence

Termination of Employment and Leave of Absence

If you cease to be an active employee for any reason (other than on account of death or are disabled as described in Section 12 of the Plan) before the Date of Payout (in the case of a recipient in the United States, at year end of the applicable PSU Performance Period), all PSUs are canceled immediately. However, if at the time that you cease to be an active employee (provided you are not terminated for cause), you are a banded executive, have attained age 55, completed at least 15 years of service with the Company, and completed at least one year of active service during the PSU Performance Period (as set forth in your Equity Award Agreement), the PSUs granted hereunder shall be paid out on the Date of Payout (as set forth in your Equity Award Agreement) in an amount that will be prorated for the time that you work as an active executive during the PSU Performance Period, and adjusted for the performance score determined for the entire applicable performance period(s).

However, provided you are not terminated for cause, your unvested PSUs will continue to vest if all of the following criteria are met at the time you cease to be an active employee:

- You are either (i) determined to be a member of the Performance Team or any successor team thereto; or (ii) if not a member of the Performance Team, are designated by the Company as a Band A executive or a comparable band thereto;
- You have completed at least one year of active service during the PSU Performance Period (as set forth in your Equity Award Agreement);
- You have reached age 55 with 15 years of service (age 60 with 15 years of service for the Chairman and CEO);
- The Committee has certified that all performance conditions have been met; and
- Appropriate senior management, the Committee or the Board, as appropriate, do not exercise their discretion to cancel or otherwise limit the payout.

Death or Disability

Prior to the Date of Payout, (i) in the event of your death or (ii) if you are disabled (as described in Section 12 of the Plan), all PSUs shall continue to vest according to the terms of your Equity Award Agreement and the PSUs will be paid on the Date of Payout, based on IBM performance, if applicable, over the entire applicable Performance Period(s).

Terms and Conditions of Your Equity Award:
Provisions that apply to specific countries

a. Israel

i. All Awards

Data Privacy

In addition to the data privacy provisions in your Equity Award Agreement, you agree that data, including your personal data, necessary to administer this Award may be exchanged among IBM and its subsidiaries and affiliates as necessary (including transferring such data out of the country of origin both in and out of the EEA), and with any vendor engaged by IBM to administer this Award.

b. United States

i. All Awards

Nothing in the Plan prospectus, your Equity Award Agreement or this Document affects your rights, immunities, or obligations under any federal, state, or local law, including under the Defend Trade Secrets Act of 2016, as described in Company policies, or prohibits you from reporting possible violations of law or regulation to a government agency, as protected by law.

If you are, and have been for at least 30 days immediately preceding, a resident of, or an employee in Massachusetts at the time of the termination of your employment with IBM, cancellation and rescission provisions of the Plan will not apply if you engage in competitive activities after your employment relationship has ended with IBM. For the avoidance of doubt, cancellation and rescission provisions of the Plan will apply if you engage in (1) any Detrimental Activity prior to your employment relationship ending with IBM or (2) any Detrimental Activity described in Section 13(a) of the Plan other than engaging in competitive activities after your employment relationship has ended with IBM.

Exhibit 10.2

IBM Board of Directors

Amended and Restated
Deferred Compensation and Equity Award Plan

Amendment No. 2

Instrument of Amendment

International Business Machines Corporation ("IBM") has established and maintains the Amended and Restated Deferred Compensation and Equity Award Plan, as amended from time to time (the "Plan").

In accordance with Article X of the Plan, the Board has reserved the right to amend the Plan at any time and from time to time.

The Board amended and restated the Plan effective as of January 1, 2014 and further amended the Plan effective as of January 30, 2018.

The Board has determined to further amend the Plan, in the manner set forth in this Instrument of Amendment, effective upon adoption, except as otherwise set forth herein.

Amendment:

1. **Article II(a) is amended to read in its entirety as follows:**

"(a) Promised Fee Share Percentage

A percentage of the annual retainer fees to be earned by each Outside Director ("Fees"), such percentage to be determined by the Board or the Committee (as defined in ARTICLE IV(a)(i)) prior to the end of the then current Election Term (as defined in ARTICLE II(d)), shall be paid as a promise by IBM to deliver Shares ("Promised Fee Shares") pursuant to ARTICLE VI hereof (such percentage, the "Promised Fee Share Percentage"). The Payment of such Promised Fee Shares shall be deferred until the Outside Director ceases to be a member of the Board. Effective as of the date of the adoption of Amendment No. 2 to this Plan, dated as of December 13, 2022, the Promised Fee Share Percentage shall be 63% until the Board or the Committee adopts a new Promised Fee Share Percentage."

2. **Article II(b) is amended to read in its entirety as follows:**

"(b) Remaining Fees

An Outside Director may elect to defer receipt of all or any portion of the remaining percentage of the Fees by providing such election to the Secretary of IBM (“Secretary”) on a Deferral Election Form supplied by the Secretary ("Deferral Election"). The Outside Director's election must specify (i) the portion of such Fees to be deferred and (ii) the choice of deferral in cash and/or Promised Fee Shares."

3. **The first paragraph of Article II(d) is amended to read in its entirety as follows:**

"(d) Duration of Deferral Election

Each Deferral Election is irrevocable with respect to the then current Election Term. Any modification or termination of a Deferral Election by an Outside Director must be made in writing to the Secretary of IBM at least 30 days prior to the end of the then current Election Term (or such later date prior to the end of the then current Election Term as determined by the Board or the Committee) and will become effective for the subsequent Election Term. A Deferral Election shall continue from Election Term to Election Term unless the Outside Director submits either (i) a written request to modify or terminate the Deferral Election or (ii) a new Deferral Election Form."

Exhibit 10.3

IBM EXCESS 401(k) PLUS PLAN

Amended and Restated Effective January 1, 2023
(except as otherwise provided herein)

TABLE OF CONTENTS

ARTICLE I. INTRODUCTION

1.01. Name of Plan and Effective Date. The IBM Executive Deferred Compensation Plan (the "EDCP") was renamed and restated as the "IBM Excess 401(k) Plus Plan" (the "Plan"), effective as of January 1, 2008 (the "Effective Date"), except as provided in Section 1.04, below, with respect to amounts earned before the Effective Date. This amended and restated plan document is effective for Deferral Periods beginning on and after January 1, 2023, except as otherwise provided herein, and supersedes the January 1, 2010 and January 1, 2021 restatements of the Plan, except as otherwise provided herein. In addition, the EDCP plan document in effect prior to the Effective Date (the "EDCP document") continues to govern the portion of the Plan consisting of "deferred shares" (as defined in the EDCP document). The EDCP document is Appendix A. This January 1, 2023 restatement of the Plan reflects various changes and clarifications including the removal of the December 15th employment condition for receiving Company Contributions, which applied for Deferral Periods that began on or after January 1, 2013 and continued through December 31, 2022.

1.02. Purpose. The purpose of the Plan is to attract and retain employees by providing a means for employees to defer their pay and obtain matching and other company contributions outside of the IBM 401(k) Plus Plan, which is subject to certain limits under the Internal Revenue Code of 1986, as amended (the "Code"). All Plan benefits are paid out of the general assets of the Company (as defined in 1.04(b)).

1.03. Legal Status. The Plan consists of two separate plans:

(a) An unfunded deferred compensation plan for a select group of management or highly compensated employees (within the meaning of Sections 201(2), 301(a)(3), 401(a)(1), 4021(b)(6) of Employee Retirement Income Security Act of 1974, as amended ("ERISA")), except to the extent that the Plan provides benefits as described in subsection (b), below; and

(b) An "excess benefit plan" (within the meaning of Section 3(36) of ERISA), to the extent the Plan provides benefits that Section 415 of the Code prevents the IBM 401(k) Plus Plan from providing.

1.04. Section 409A.

(a) *Grandfathered Amounts under Section 409A.* Benefits earned and vested under the EDCP before January 1, 2005, as adjusted for earnings, gains, or losses on those benefits ("Grandfathered Amounts") are treated as grandfathered for purposes of Section 409A of the Code. Grandfathered Amounts are subject to the terms of the EDCP in effect on October 3, 2004, except as provided herein or in Appendix A. For recordkeeping purposes, the Company will account separately for Grandfathered Amounts.

(b) *Non-Grandfathered Amounts.* With respect to benefits under the Plan (including benefits earned before the Effective Date) other than

Grandfathered Amounts ("Non-Grandfathered Amounts"), the Plan is intended, and shall be construed, to comply with the requirements of Section 409A of the Code. Non-Grandfathered Amounts earned before the Effective Date were subject, before the Effective Date, to the terms of the EDCP, as amended, including, for example, the requirement that any payment to a 409A Key Employee (as defined in (b)) that would otherwise be paid in the first six months after a separation from service was instead paid in the seventh month. Notwithstanding anything to the contrary in this Section 1.04, in no event shall the Company, its officers, directors, employees, parents, subsidiaries, or affiliates be liable for any additional tax, interest, or penalty incurred by a Participant or Beneficiary as a result of a failure to satisfy the requirements of Section 409A of the Code, or as a result of a failure to satisfy any other applicable requirements for the deferral of tax. Each participant shall instead be fully responsible and liable for all taxes due with respect to Plan benefits including amounts due pursuant to Section 409A of the Code.

ARTICLE II. DEFINITIONS

The following words and phrases as used herein have the following meanings unless a different meaning is required by the context:

"401(k) Plan" means the IBM 401(k) Plus Plan as in effect from time to time, including, with respect to periods before the Effective Date, the IBM Savings Plan and any other predecessor to the IBM 401(k) Plus Plan, as applicable.

"409A Key Employee" has the meaning described in the IBM Section 409A Umbrella Document, which is Appendix B to this Plan.

"409A Separation from Service" has the meaning described in the IBM Section 409A Umbrella Document, which is Appendix B to this Plan.

"Account" means a record-keeping account maintained for a Participant under the Plan. A Participant's Accounts under the Plan include, where applicable, a Pre-2005 Elective Deferral Account, a Pre-2005 Company Account, a Post-2004 Elective Deferral Account, and a Post-2004 Company Account.

"Actively Employed" means actively employed by the Company, including on a leave of absence other than a bridge leave, a pre-retirement planning leave, or a leave during which the individual is receiving LTD Benefits.

"Automatic Contribution" has the meaning provided in Section 5.01.

"Base Pay" means an Employee's base pay (determined under the 401(k) Plan) from the Company for employment while on a U.S. payroll, determined before reduction for deferrals under the Plan or the 401(k) Plan or for amounts not included in income on account of salary reductions under Code section 125 or 132(f). However, Base Pay does not include any pay during a Deferral Period that is paid after an Employee's 409A Separation from Service (except amounts paid in the pay period in which the Employee's 409A Separation from Service occurs and Rehire Pay).

"Beneficiary" means a person who is designated by a Participant or by the terms of the Plan to receive a benefit under the Plan by reason of the Participant's death. Each Participant's Beneficiary under the Plan shall be the person or persons designated as the Participant's Beneficiary under the Plan, in the form and manner prescribed by the Plan Administrator. If no such beneficiary designation is in effect under the Plan at the time of the Participant's death, or if no designated beneficiary under the Plan survives the Participant, the Participant's Beneficiary shall be the person or persons determined to be the Participant's beneficiary under the 401(k) Plan (including the default beneficiary rules under the 401(k) Plan, if no beneficiary is designated under that plan, including due to there not being a beneficiary designation after full distribution of 401(k) Plan benefits).

"Benefits Service Date" means an Eligible Employee's "Benefits Service Date" under the 401(k) Plan. Benefits Service Date was previously referred to as Program Eligibility Date.

"Board" means the Board of Directors of IBM.

"Code" means the Internal Revenue Code of 1986, as amended from time to time. All citations to sections of the Code are to such sections as they may from time to time be amended or renumbered.

"Combined Base Pay Election" has the meaning provided in Section 4.01(a)(1).

"Company" means International Business Machines Corporation ("IBM"), a New York corporation having its principal place of business at Armonk, New York, and its Domestic Subsidiaries that are participating employers in the 401(k) Plan.

"Company Contributions" means amounts credited to a Participant's Post-2004 Company Account, including Matching Contributions, Match Maximizer Contributions (prior to 2013, as defined in the Plan then in effect), Automatic Contributions, Transition Credits (prior to 2013, as defined in the Plan then in effect), Discretionary Awards, Section 415 Excess Credits (prior to 2019, as defined in the Plan then in effect), and any similar credits under the EDCP.

"Deferral Election" means an Eligible Employee's election to defer Base Pay or Performance Pay under Section 4.01.

"Deferral Period" means a period that begins on or after the Effective Date that (a) starts on January 1 and ends on the next following December 31 for Base Pay and (b) starts on April 1 and ends on the next following March 31 for Performance Pay.

"Discretionary Award" means a credit to a Participant's Account as described in Section 5.03.

"Domestic Subsidiary" means a "Domestic Subsidiary" as defined in the 401(k) Plan.

"EDCP" means the IBM Executive Deferred Compensation Plan in effect before the Effective Date.

"Effective Date" means the initial effective date of the Plan, which is January 1, 2008.

"Elective Deferrals" means deferrals of Base Pay or Performance Pay credited to the Participant's Post-2004 Elective Deferral Account pursuant to a Participant's election under Section 4.01(a) or any similar provision of the EDCP.

"Eligible Employee" means, with respect to a Plan Year, an Employee who is eligible to make Elective Deferrals or to receive Company Contributions during the Plan Year pursuant to ARTICLE III.

"Employee" means an employee of the Company who is eligible to participate in the 401(k) Plan and is not a Supplemental Employee. Notwithstanding the foregoing, an individual who was an Employee and becomes a Supplemental Employee or begins receiving LTD Benefits before or during a Deferral Period with respect to which the individual has a valid, irrevocable Deferral Election and without first incurring a 409A Separation from Service shall continue to be considered to be an Employee solely for purposes of the individual's eligibility during such Deferral Period to make Elective Deferrals (but not for purposes of the individual's eligibility for any Company Contribution). For example, an individual who is receiving LTD Benefits is not eligible to participate in the 401(k) Plan (as in effect on the Effective Date) and is therefore not an Employee, except that if the individual has not incurred a 409A Separation from Service, the Employee's Elective Deferrals shall continue pursuant to any irrevocable Deferral Election.

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended from time to time.

"Excess 401(k) Eligible Pay" means, for each payroll period that ends after an Eligible Employee reaches the Eligible Employee's Benefits Service Date, the excess, if any, of (A) the Eligible Employee's eligible compensation under the 401(k) Plan for such payroll period determined without regard to the Pay Limit, over (B) the Eligible Employee's eligible compensation under the 401(k) Plan during such payroll period determined taking into account the Pay Limit.

"Grandfathered Amounts" has the meaning provided in Section 1.04(a).

"IBM" means International Business Machines Corporation, any predecessor, or any successor by merger, purchase, or otherwise.

"LTD Benefits" means benefits under the Company's long-term disability plan.

"Matching Contribution" has the meaning provided in Section 4.02.

"Non-Grandfathered Amounts" has the meaning provided in Section 1.04(b).

"Participant" means an individual who has a positive balance in an Account under the Plan.

"Pay Limit" means, for a Plan Year, the limit on compensation that may be taken into account during such Plan Year under a tax-qualified plan as determined under Code Section 401(a)(17).

"Performance Pay" means an Employee's performance pay (determined under the 401(k) Plan) from the Company for employment while on a U.S. payroll, but determined before reduction for deferrals under the Plan or the 401(k) Plan (and determined before reductions for amounts not included in income on account of salary reductions under Code section 125 or 132(f)). However, Performance Pay does not include any pay during a Deferral Period that is paid after an Employee's 409A Separation from Service (except amounts paid in the pay period in which the Employee's 409A Separation from Service occurs and Rehire Pay).

"Plan" means this IBM Excess 401(k) Plus Plan.

"Plan Administrator" means the VP HR with functional responsibilities for IBM's benefit programs, or such other person or committee appointed pursuant to ARTICLE X, which shall be responsible for reporting, recordkeeping, and related administrative requirements. If appointed as a committee, any one of the members of the committee may act individually on behalf of the committee to fulfill the committee's duties.

"Plan Year" means the calendar year.

"Pre-2005 Accounts" means a Participant's Pre-2005 Company Account and Pre-2005 Elective Deferral Account.

"Pre-2005 Company Account" means, for any Participant, the aggregate of the company contributions (including any discretionary awards) credited to the Participant under the EDCP before January 1, 2005, to the extent such contributions were vested as of December 31, 2004, and earnings, gains, or losses credited on those contributions, but reduced for any prior distribution under the EDCP or the Plan.

"Pre-2005 Elective Deferral Account" means, for any Participant, the aggregate of the elective deferrals credited to the Participant under the EDCP before January 1, 2005, and earnings, gains, or losses credited on those elective deferrals, but reduced for any prior distribution under the EDCP or the Plan.

"Post-2004 Accounts" means a Participant's Post-2004 Company Account and Post-2004 Elective Deferral Account.

"Post-2004 Company Account" means, for any Participant, the aggregate of (a) the Company Contributions credited to the Participant under the EDCP or the Plan on or after January 1, 2005, plus (b) any such contributions credited under the EDCP before January 1, 2005, to the extent such contributions were not vested as of December 31, 2004, and earnings, gains, or losses credited on amounts described in (a) and (b), but reduced for any prior distribution under the EDCP or the Plan.

"Post-2004 Elective Deferral Account" means, for any Participant, the aggregate of the Elective Deferrals credited to the Participant under the EDCP or the Plan on or after

January 1, 2005, and earnings, gains, or losses credited on those Elective Deferrals, but reduced for any prior distribution under the EDCP or the Plan.

"Rehire Pay" means Base Pay or Performance Pay, as applicable, that is payable on or after the date an Employee returns to active employment with the Company following a 409A Separation from Service or, if later, after the end of the Deferral Period in which the Employee's 409A Separation from Service occurred. For example, if an Employee incurs a 409A Separation from Service in April 2023 (whether on account of a leave in excess of six months or because of a termination of employment with IBM) and returns to active employment with IBM in November 2023, the Employee's Rehire Pay would include (a) Base Pay payable on or after January 1, 2024 (i.e., the beginning of the Base Pay Deferral Period after the 409A Separation from Service), and (b) Performance Pay payable on or after April 1, 2024 (i.e., the beginning of the Performance Pay Deferral Period after the 409A Separation from Service). By contrast, if instead the Employee returned to active employment on February 1, 2024, the Employee's Rehire Pay would include (a) Base Pay payable on or after on February 1, 2024, and (b) Performance Pay payable on or after April 1, 2024.

"Retirement-Eligible Participant" means a Participant who:

(a) when the Participant's 409A Separation from Service occurs, (1) is at least age 55 with at least 15 years of service, (2) is at least age 62 with at least 5 years of service, (3) is at least age 65 with at least 1 year of service, or (4) begins to receive LTD Benefits;

(b) as of June 30, 1999, had at least 25 years of service and, when the Participant's 409A Separation from Service occurs, has at least 30 years of service; or

(c) as of June 30, 1999, was at least age 40 with at least 10 years of service and, when the Participant's 409A Separation from Service occurs, has at least 30 years of service.

For purposes of this definition, "year of service" means a year of "Eligibility Service" as defined in the IBM Personal Pension Plan. In addition, for purposes of Section 8.04 (payment of grandfathered amounts upon termination of employment), this definition of "Retirement-Eligible Participant" is applied by replacing "409A Separation from Service" with "termination of employment." Furthermore, the conditions in (a), (b), and/or (c) above are modified to the extent necessary to be consistent with the retirement-eligibility criteria in the EDCP.

"Subsidiary" means a "Subsidiary" as defined in the 401(k) Plan.

"Supplemental Employee" means an employee so designated by the Company in accordance with the Company's established personnel practices who is not classified as a Regular Employee.

ARTICLE III. ELIGIBILITY

3.01. Eligibility for Elective Deferrals. An Employee shall be eligible to make Elective Deferrals for a Deferral Period if the Employee satisfies (a), (b) and (c) below:

(a) the individual qualifies as an Employee (i.e., an employee of the Company who is eligible to participate in the 401(k) Plan and is not a Supplemental Employee) and is Actively Employed on both of the following dates:

(1) either (A) July 31, (B) August 31 for Employees hired or rehired between August 1 and August 31, or (C) November 15 for Employees who are hired or rehired as a banded executive between August 1 and November 15; and

(2) December 31 immediately preceding the first day of the Deferral Period.

(b) the Plan Administrator, in its sole discretion, (i) estimates as of the August 1 immediately preceding the first day of the Deferral Period (or such other date prescribed by the Plan Administrator) that the Employee's total pay for the calendar year immediately preceding the first day of the Deferral Period will exceed the Pay Limit as then in effect, (ii) estimates as of the same date(s) that the Employee's total Base Pay for the calendar year immediately preceding the first day of the Deferral Period, when added to the Employee's actual Performance Pay for the second or third calendar year preceding the first day of the Deferral Period will exceed the Pay Limit as then in effect; or (iii) determines that the Employee is eligible to participate pursuant to the Transition to Retirement program; and

(c) the Plan Administrator notifies the Employee between August 1 and December 31 immediately preceding the Deferral Period that the Employee will be eligible to make Elective Deferrals under the Plan during the Deferral Period.

Notwithstanding any other provision in this Section 3.01, IBM's chief human resources officer may, in such officer's sole discretion, determine that an Employee shall be eligible to make Elective Deferrals for a Deferral Period even if the Employee does not otherwise satisfy the requirements set forth above. Any such determination shall be made by the December 15 immediately preceding the Deferral Period.

3.02. Eligibility for Matching Contributions. Effective January 1, 2023, an Employee shall be eligible for Matching Contributions for a payroll period that ends after the Employee has reached the Employee's Benefits Service Date, provided that the Employee is eligible for, and makes, Elective Deferrals during the Plan Year in which the payroll period ends. However, an Employee shall not be eligible for Matching Contributions for any payroll period:

(a) beginning after the Employee has a 409A Separation from Service and ending before the individual becomes Actively Employed as an Employee who is eligible for, and makes, Elective Deferrals;

(b) beginning after the Employee becomes a Supplemental Employee and ending before the individual again becomes Actively Employed as an Employee who is eligible for, and makes, Elective Deferrals; or

(c) beginning after the Employee begins to receive LTD Benefits (whether or not the Employee makes Elective Deferrals) and ending before the individual again becomes Actively Employed as an Employee who is eligible for, and makes, Elective Deferrals.

Effective before January 1, 2023 (starting with Deferral Periods that began on or after January 1, 2013), an Employee was eligible for Matching Contributions only if the Employee was a Company Contribution-Eligible Individual (as defined in the Plan then in effect) for the applicable Plan Year. For the avoidance of doubt, an Employee does not need to be a Company Contribution-Eligible Individual (as defined in the Plan previously in effect) to be eligible for Matching Contributions with respect to Performance Pay payable from January 1, 2023 through March 31, 2023.

3.03. Eligibility for Automatic Contributions.

(a) *General Rule.* Except as provided in subsection (b) (regarding the period following a 409A Separation from Service), an Employee shall be eligible for Automatic Contributions during a payroll period only if the Employee is eligible during that payroll period for "automatic contributions" under the 401(k) Plan and is eligible to make Elective Deferrals for the Plan Year, regardless of whether the Employee elects to make Elective Deferrals for the Plan Year. Effective before January 1, 2023 (starting with Deferral Periods that began on or after January 1, 2013), an Employee was eligible for Automatic Contributions only if the Employee was a Company Contribution-Eligible Individual (as defined in the Plan then in effect) for the applicable Plan Year. For the avoidance of doubt, an Employee does not need to be a Company Contribution-Eligible Individual (as defined in the Plan previously in effect) to be eligible for Automatic Contributions with respect to Performance Pay payable from January 1, 2023 through March 31, 2023.

(b) *Eligibility after 409A Separation from Service*. An Employee's Automatic Contributions for a Plan Year shall be calculated without regard to any

Elective Deferrals or Excess 401(k) Eligible Pay for any payroll period that begins after the Employee has a 409A Separation from Service and ends before the next Plan Year.

3.04. Eligibility for Discretionary Awards. An Employee shall be eligible for Discretionary Awards during a Plan Year as determined by the Company, in its discretion.

3.05. Kyndryl Participation for 2021. Effective August 31, 2021, Employees in the Company's Managed Infrastructures Services business were transferred to Kyndryl, Inc., a then Affiliate. Effective November 3, 2021, IBM distributed shares of Kyndryl Holdings, Inc. to shareholders of IBM, at which time Kyndryl, Inc. and Kyndryl Holdings, Inc. (together with each of their subsidiaries, "Kyndryl") ceased to be Affiliates. In connection with this transaction:

(a) An Eligible Employee who made Elective Deferrals for a Deferral Period beginning in 2021 and who transferred to and continued in employment with Kyndryl continued such deferrals for the entire Deferral Period (until Kyndryl ceased to be an Affiliate effective November 3, 2021) as if the individual were an Employee of the Company, regardless of whether the Employee was eligible to participate in the 401(k) Plan, was on the U.S. payroll, or was Actively Employed by the Company (and was instead Actively Employed by Kyndryl).

(b) Such an Eligible Employee was similarly eligible to receive Automatic Contributions and Matching Contributions with respect to such Employee's Elective Deferrals or Excess 401(k) Eligible Pay, as applicable.

(c) Except to the extent that such Elective Deferrals, Automatic Contributions, or Matching Contributions were made to a nonqualified deferred compensation plan sponsored by Kyndryl, such contributions were credited to the Plan and subject to the terms herein. In furtherance of the foregoing, Elective Deferrals with respect to Base Pay for payroll periods ending before November 3, 2021 and Performance Pay paid by IBM prior to December 31, 2021 were made to the Plan, and, otherwise, Elective Deferrals were made in accordance with and subject to the terms of the Kyndryl Excess Plan.

(d) Neither the Employee's transfer of employment to Kyndryl, Inc., nor the November 3, 2021, distribution of shares of Kyndryl Holdings, Inc. to shareholders of IBM, is treated as a 409A Separation from Service. Effective following the November 3, 2021, distribution of shares of Kyndryl Holdings, Inc. to shareholders of IBM, an Employee transferred to Kyndryl, Inc. shall be treated as having a 409A Separation from Service upon such Employee's "separation from service" from Kyndryl Holdings, Inc. within the meaning of Treas. Reg. § 1.409A-1(h).

ARTICLE IV. ELECTIVE DEFERRALS AND MATCHING CONTRIBUTIONS

4.01. Elective Deferrals. Elective Deferrals made pursuant to an Eligible Employee's Deferral Election, as described below, shall be credited to the Employee's Post-2004 Elective Deferral Account on the date on which the amount would otherwise be paid to the Eligible Employee absent a Deferral Election.

(a) *Amount of Elective Deferrals*.

(1) Amount of Base Pay Deferrals. An Employee who, pursuant to Section 3.01, is eligible to make Elective Deferrals under the Plan for a Deferral Period with respect to Base Pay may elect to defer Base Pay in the amounts specified below, subject to any restriction imposed by the Plan Administrator to ensure sufficient pay remains for other deductions and withholding, which limitations shall be imposed prior to the date on which the election becomes irrevocable.

i. *Standard Base Pay Election*. From 1% to 80%, in 1% increments, of the Eligible Employee's Base Pay, if any, for each payroll period that ends during the Deferral Period; or

ii. *Combined Base Pay Election*. From 1% to 80%, in 1% increments, of the Eligible Employee's Base Pay, if any, for each payroll period that ends during the Deferral Period, reduced (but not below zero) by the product of (A) the company matching contribution percentage applicable to the Eligible Employee under the 401(k) Plan and (B) 1/24 of the Pay Limit in effect for the Deferral Period.

(2) Amount of Performance Pay Deferrals. An Employee who, pursuant to Section 3.01, may elect to make Elective Deferrals under the Plan for a Deferral Period with respect to Performance Pay may elect to make Deferrals from 1% to 80%, in 1% increments, of the Employee's Performance Pay, if any, paid during the Deferral Period.

(b) *Timing of Deferral Elections.* An Eligible Employee's Deferral Elections under subsection (a), above, shall be made as follows:

(1) Election Period. The election must be made while the individual is an Employee and Actively Employed, in the form and manner prescribed by the Plan Administrator, and during the time period prescribed by the Plan Administrator, which shall begin no earlier than the September 1 and end no later than the December 31 of the Plan Year immediately preceding the first day of the Deferral Period to which the election applies.

(2) Irrevocability. The election must become irrevocable on the December 31st immediately preceding the Plan Year during which the applicable Deferral Period begins. Once a Deferral Election becomes irrevocable, an Eligible Employee's Deferral Election shall apply for the entire Deferral Period to which it relates and shall cease to apply after such Deferral Period except to the extent that the individual makes a new Deferral Election in accordance with this Section for subsequent Deferral Periods, subject to the cancellation rules that applied prior to 2019 upon a 401(k) Plan hardship distribution.

4.02. Matching Contributions. A Matching Contribution shall be credited each payroll period to the Post-2004 Company Account for each Eligible Employee who satisfies the eligibility requirements described in Section 3.02 for such payroll period. An Eligible Employee's Matching Contribution shall equal the sum of the following:

(a) the lesser of (1) the company matching contribution percentage applicable to the Eligible Employee under the 401(k) Plan or (2) the Elective Deferral percentage elected by the Eligible Employee (without regard to any Combined Base Pay Election) for such payroll period, multiplied by the Eligible Employee's Elective Deferrals for such payroll period;

(b) the lesser of (1) the company matching contribution percentage applicable to the Eligible Employee under the 401(k) Plan or (2) the Elective Deferral percentage elected by the Eligible Employee (without regard to any Combined Base Pay Election) for such payroll period, multiplied by the Eligible Employee's Excess 401(k) Eligible Pay for such payroll period; and

(c) a true-up matching contribution for such payroll period calculated as (1) multiplied by (2), minus (3), as follows:

(1) The lesser of (A) the company matching contribution percentage applicable to the Eligible Employee under the 401(k) Plan or (B) the percentage derived from the ratio of:

i. The aggregate Elective Deferrals credited to the Eligible Employee for the portion of the Plan Year after the Employee has reached the Employee's Benefits Service Date and through the end of the payroll period, to

ii. The sum, for the portion of the Plan Year after the Employee has reached the Employee's Benefits Service Date and through the end of the payroll period, of (x) the Eligible Employee's Elective Deferrals, (y) the Eligible Employee's Excess 401(k) Eligible Pay, and (z) if the Eligible Employee did not elect a Combined Base Pay Election for the Plan Year, the compensation eligible for matching contributions under the 401(k) Plan.

Multiplied by

(2) The Eligible Employee's Excess 401(k) Eligible Pay plus the Eligible Employee's Elective Deferrals, in each case for the portion of the Plan Year after the Employee has reached the Employee's Benefits Service Date and through the end of the payroll period.

Minus

(3) The Matching Contributions credited to the Eligible Employee for the portion of the Plan Year through the end of the payroll period (including, for the avoidance of doubt, Matching Contributions calculated under paragraphs (a) and (b) above for such payroll period).

provided that the sum calculated under paragraphs (a) and (b) above shall not exceed the Elective Deferrals credited to the Eligible Employee for the payroll period, and provided further that an Eligible Employee's Matching Contribution at any point during the Plan Year shall not exceed the Elective Deferrals credited to the Eligible Employee for the portion of the Plan Year through such date.

Effective for Matching Contributions payable with respect to Plan Years 2013 through 2022, Matching Contributions were calculated for the applicable Plan Year in accordance with the terms of the Plan then in effect and were not made on a payroll period-by-payroll period basis.

ARTICLE V. NON-ELECTIVE CREDITS

5.01. Automatic Contributions. An Automatic Contribution shall be credited to the Post-2004 Company Account each payroll period for each Employee who is eligible for Automatic Contributions for such payroll period under Section 3.03. The amount of Automatic Contributions equals the sum of:

(a) the Employee's "automatic contribution percentage" under the 401(k) Plan multiplied by the Employee's Elective Deferrals, if any, for the payroll period; plus

(b) the Employee's "automatic contribution percentage" under the 401(k) Plan multiplied by the Employee's Excess 401(k) Eligible Pay, if any, for the payroll period.

Effective for Automatic Contributions payable with respect to Plan Years 2013 through 2022, Automatic Contributions were calculated for the applicable Plan Year in accordance with the terms of the Plan then in effect and were not made on a payroll period-by-payroll period basis.

5.02. Discretionary Awards. From time to time, the Company, in its discretion, may credit an Eligible Employee's Post-2004 Company Account with an amount determined under an agreement evidencing the Discretionary Award, and such award shall be subject to the terms specified in such agreement in addition to the terms of this Plan.

ARTICLE VI. VESTING, DEEMED INVESTMENT OF ACCOUNTS

6.01. Individual Accounts. For record-keeping purposes only, the Plan Administrator shall maintain, or cause to be maintained, records showing the individual balances of each Account maintained for a Participant from time to time under the Plan. Periodically, each Participant shall be furnished with a statement setting forth the value of the Participant's Accounts under the Plan.

6.02. Vesting of Accounts. A Participant shall be fully vested in all Accounts maintained for the Participant under the Plan; provided, however, that Discretionary Awards credited to a Participant's Post-2004 Company Account and earnings, gains, or losses on those contributions, shall become vested only as set forth in the agreement evidencing the award and, to the extent not vested, shall not be paid.

6.03. Deemed Investment of Accounts. A Participant's Accounts under the Plan shall be adjusted for deemed earnings, gains, or losses. Earnings, gains, or losses for any period before the Effective Date shall be determined in accordance with the applicable provisions of the EDCP. Earnings, gains, or losses for any period on or after the Effective Date shall be determined in accordance with the following:

(a) *Deemed Investment Options Available*.

(1) General Rule. A Participant's Account shall be treated as if the Participant had invested such accounts in certain 401(k) Plan investment funds in accordance with subsection (b), below, except with respect to certain amounts credited before the Effective Date and attributable to Matching Contributions or the Buy-First Program as described in paragraphs (2) and (3), below.

(2) Matching Contributions Credited Before the Effective Date. The portion of a Participant's Pre-2005 Company Account (if any) and the Participant's Post-2004 Company Account attributable to Matching Contributions credited to the Participant before the Effective Date (and related earnings but not dividend equivalents) shall be treated as if invested at all times in the IBM Stock Fund under the 401(k) Plan. Notwithstanding the foregoing, if a Participant has a termination of employment for purposes of the 401(k) Plan and the Participant's entire Plan benefit is not immediately payable in a lump sum, amounts described in this paragraph (2) shall no longer be subject to the restrictions of this paragraph (2) and may be invested as described in paragraph (1), above.

(3) Amounts Attributable to Buy-First Executive Equity Program. Any portion of a Participant's Post-2004 Elective Deferral Account that is attributable to a Participant's deferrals under the EDCP through the IBM Buy-First Executive Equity Program before the Effective Date (and related earnings but not dividend equivalents) shall, for the three-year period

following the date such deferrals were credited, be treated as if invested in the IBM Stock Fund under the 401(k) Plan; provided, however, that if a Participant has a termination of employment for purposes of the 401(k) Plan before the end of such three-year period and the Participant's entire Plan benefit is not immediately payable in a lump sum, amounts described in this paragraph (3) shall no longer be subject to the restrictions of this paragraph (3) and may be invested as described in paragraph (1), above.

(b) *Elections for Deemed Investment Options.*

(1) Initial Election For Future Credits. A Participant shall designate, in such form and at such time in advance as may be prescribed by the Plan Administrator, the proportions (in multiples of 1%) in which Elective Deferrals and Company Contributions credited to the Participant's Plan Accounts on or after the Effective Date shall be treated as if they had been allocated among any or all of the investment funds that are available under the 401(k) Plan (other than the mutual fund window) at the time such amounts are credited. If the Participant makes no such designation, the Participant shall be deemed to have designated the default investment fund under the 401(k) Plan.

(2) Change in Election for Future Credits. A Participant may elect, in such form and at such time in advance as may be prescribed by the Plan Administrator, to change the Participant's investment elections for future Elective Deferrals and Company Contributions credited to the Participant's Plan Accounts. Any restrictions on investment election changes that apply under the 401(k) Plan shall also apply under the Plan.

(3) Transfers Among Deemed Investment Options. A Participant may elect, in such form and at such time in advance as may be prescribed by the Plan Administrator, to transfer balances in the Participant's Plan Accounts (other than amounts described in subsections (a)(1), (a)(2), or (a)(3) that are required to be treated as invested in IBM stock or the IBM Stock Fund) among the available investment funds, provided that:

i. Transfers must be made in multiples of 1%, provided that the minimum amount transferred shall be $250 if that is greater than 1% (provided, however, that the Plan Administrator may specify a different percentage and/or a different dollar amount to be applied in this paragraph);

ii. Any restrictions on transfers into or out of investment funds that apply under the 401(k) Plan shall also apply under the Plan; and

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iii. Plan Administrator may impose such additional rules and limits upon transfers between investment funds as the Plan Administrator may deem necessary or appropriate.

(c) *Administrative Fee*. Each calendar quarter, an administrative fee shall be deducted pro rata from each Participant's Accounts. The amount of the fee shall be determined by the Plan Administrator and, as of January 1, 2023 is $8 each quarter.

(d) *IBM Stock Fund Adjustment in 2021.* As of the date on which the spin-off of Kyndryl Holdings, Inc. ("Kyndryl Holdings") occurred, which was November 3, 2021 (the "**Distribution Date**"), and notwithstanding any other provision of this Section 6.03, Plan balances that are treated as invested in the IBM Stock Fund under the 401(k) Plan were adjusted by deeming the Kyndryl Holdings stock that would have been received on account of IBM shares to be treated as immediately reinvested in the IBM Stock Fund under the 401(k) Plan following the Distribution Date, in accordance with this subsection and as otherwise determined by Plan Administrator in its sole discretion. The adjustment described in the preceding sentence resulted in each Participant being treated as having an additional number of units in the IBM Stock Fund under the 401(k) Plan, with such additional number calculated as (1), divided by (2), and rounded to the nearest thousandth unit, as follows:

(1) The dollar amount of the Participant's Plan account treated as invested in the IBM Stock Fund as of closing on the Distribution Date, multiplied by the cost allocation percentage for Kyndryl Holdings stock upon the spin-off.

divided by

(2) An adjusted unit price for the IBM Stock Fund, calculated as the NAV for the IBM Stock Fund on the Distribution Date, multiplied by the cost allocation percentage for IBM stock upon the spin-off.

The cost allocation percentage was determined by the Plan Administrator in its sole discretion based upon the opening per share price of IBM stock and Kyndryl Holdings stock on the New York Stock Exchange on the first trading day that occurred immediately following the Distribution Date, relative to the closing per share price of IBM stock on the Distribution Date.

In accordance with the foregoing and for the avoidance of doubt, no Participant Account balance was treated as invested in Kyndryl Holdings stock or a Kyndryl Holdings stock fund, notwithstanding any such treatment in the 401(k) Plan.

ARTICLE VII. FORFEITURE AND RIGHT OF RECOVERY OF COMPANY CONTRIBUTIONS

7.01. In General. If IBM's chief human resources officer makes a determination that a Participant has engaged in "Detrimental Activity" (as defined below), subject to the terms of this ARTICLE VII: (i) the Participant's right (if any) to the payment of the portion of the Participant's Account attributable to "Applicable Company Contributions" (as defined below) shall terminate, unless otherwise determined by such chief human resources officer; and (ii) if such portion of the Participant's Account had been paid before such determination is made, the Participant shall be required to repay such amount to IBM, unless otherwise determined by such chief human resources officer. Any determination by IBM's chief human resources officer under this ARTICLE VII may be made in such officer's sole discretion and shall be binding on the Participant.

7.02. Detrimental Activity. For purposes of this ARTICLE VII, "Detrimental Activity" shall include the performance of any of the following activities during the Participant's employment with the Company (as defined below) or during the 12-month period immediately following such employment:

(a) the rendering of services for any organization or engaging directly or indirectly in any business which is or becomes competitive with the Company, or which organization or business, or the rendering of services to such organization or business, is or becomes otherwise prejudicial to or in conflict with the interests of the Company;

(b) the disclosure to anyone outside the Company, or the use in other than the Company's business, without prior written authorization from the Company, of any confidential information or material, as defined in the Company's Agreement Regarding Confidential Information and Intellectual Property, relating to the business of the Company, acquired by the Participant either during or after employment with the Company;

(c) the failure or refusal to disclose promptly and to assign to the Company, pursuant to the Company's Agreement Regarding Confidential Information and Intellectual Property, all right, title and interest in any invention or idea, patentable or not, made or conceived by the Participant during employment by the Company, relating in any manner to the actual or anticipated business, research or development work of the Company or the failure or refusal to do anything reasonably necessary to enable the Company to secure a patent where appropriate in the United States and in other countries;

(d) activity that results in termination of the Participant's employment for cause;

(e) a violation of any rules, policies, procedures or guidelines of the Company, including but not limited to the Company's Business Conduct Guidelines;

(f) any attempt directly or indirectly to induce any employee of the Company to be employed or perform services elsewhere or any attempt directly or indirectly to solicit the trade or business of any current or prospective customer, supplier or partner of the Company;

(g) the Participant being convicted of, or entering a guilty plea with respect to, a crime, whether or not connected with the Company; or

(h) any other conduct or act determined to be injurious, detrimental or prejudicial to any interest of the Company.

7.03. Applicable Company Contributions. For purposes of this ARTICLE VII, "Applicable Company Contributions" means Company Contributions (adjusted for deemed earnings, gains, or losses) credited to the Participant's Account during the period (i) beginning 12 months before the date of the first occurrence of the Detrimental Activity, and (ii) ending on the last day of the Plan Year in which the Participant terminates employment with the Company. For the avoidance of doubt, "Applicable Company Contributions" include any Company Contributions credited under the Plan in connection with the last paycheck of the Participant for compensation earned through the date of termination of employment. Notwithstanding the foregoing, "Applicable Company Contributions" do not include Company Contributions credited before April 1, 2010.

7.04. Timing. This ARTICLE VII applies only if IBM's chief human resources officer makes a determination that the Participant engaged in Detrimental Activity under Section 7.01 no later than the second anniversary of the date such officer discovers the Detrimental Activity.

7.05. Delegation of Authority.

IBM's chief human resources officer may, by a duly adopted resolution, delegate to an officer or employee of IBM all or a portion of their authority under this ARTICLE VII.

7.06. Chief Human Resources Officer. For purposes of this ARTICLE VII:

(a) if IBM's chief human resources officer delegates their responsibilities under this ARTICLE VII to another person or to a committee, references to IBM's chief human resources officer in this ARTICLE VII shall, instead, refer to such other person or committee, except as provided in (b), below; and

(b) in the case of a Participant who is IBM's chief human resources officer, references to IBM's chief human resources officer in this ARTICLE VII shall, instead, refer to the Board or its delegate.

7.07. Non-Exclusive Remedies. The remedies available under this ARTICLE VII are in addition to, and not in lieu of, any other remedies available to IBM or its affiliates.

7.08. Severability. If an arbitrator or court of competent jurisdiction determines that any term, provision, or portion of this ARTICLE VII is void, illegal, or unenforceable, the other terms, provisions, and portions of this ARTICLE VII (as well as the remainder of the Plan) shall remain in full force and effect, and the terms, provisions, and portions that are determined to be void, illegal, or unenforceable shall either be limited so that they shall remain in effect to the extent permissible by law, or such arbitrator or court shall substitute, to the extent enforceable, provisions similar thereto or other provisions, so as to provide to IBM and its affiliates, to the fullest extent permitted by applicable law, the benefits intended by this ARTICLE VII.

ARTICLE VIII. PAYMENT OF GRANDFATHERED AMOUNTS

8.01. Grandfathered Treatment of Grandfathered Amounts. Pre-2005 Accounts are paid in accordance with the EDCP in effect on October 3, 2004, except as the EDCP is amended, where each such amendment does not constitute a "material modification," as determined under Section 409A of the Code. This ARTICLE VII describes the key provisions of the EDCP (as amended), as it applies to Grandfathered Amounts on and after the Effective Date.

8.02. Payment of Grandfathered Amounts Upon Death. If a Participant dies before the Participant's Pre-2005 Accounts have been distributed in full, the value of the Participant's Pre-2005 Accounts shall be paid in a lump sum to the Participant's Beneficiary as soon as practicable after the Participant's death.

8.03. Options for Payment of Grandfathered Amounts Upon Termination of Employment.

(a) *Forms of Payment.* A Participant may elect, at the time and in the manner described in subsection (b), below, to have the value of the Participant's Pre-2005 Accounts paid under one of the following options, subject to the limits in Section 8.04, below (regarding retirement-eligibility and $25,000 cash-out limit):

(1) A lump sum payment as soon as practicable following the Participant's termination from employment;

(2) A lump sum payment as of the last business day in January of the calendar year immediately following the calendar year in which the Participant's termination from employment occurs; or

(3) From two to 10 annual installments (as elected by the Participant), each paid as of the last business day in January beginning with the January immediately following the calendar year in which the Participant's termination from employment occurs, until the elected number of installments have been paid.

Solely for purposes of this subsection (a), termination of employment includes the date on which a Participant begins to receive LTD Benefits.

(b) *Election of Payment Option.* A Participant shall elect a payment option for the Participant's Pre-2005 Accounts in the form and manner prescribed by the Plan Administrator. A payment election made before January 1, 2008, applies to a termination of employment that occurs at least six months after, and in a calendar year after, the payment election is made. A payment election made on or after January 1, 2008, applies to a termination of employment that occurs at least twelve months after the payment election is made.

8.04. Payment of Grandfathered Amounts Upon Termination of Employment. The Participant's Pre-2005 Accounts shall be paid to the Participant in the form and at the time described below:

(a) Non-Retirement-Eligible or Benefit Is Less than $25,000. If the Participant is not a Retirement-Eligible Participant or if the aggregate value of all of the Participant's Accounts under the Plan (including, for this purpose, "deferred shares" as defined in the EDCP) is less than $25,000 when the Participant terminates employment, the Participant's Pre-2005 Accounts shall be paid in an immediate lump sum.

(b) Retirement-Eligible Without Valid Payment Election. If the Participant is a Retirement-Eligible Participant but has not made a valid payment election, the Participant's Pre-2005 Accounts shall be paid in a lump sum as of the last business day in January immediately following the calendar year of the Participant's termination of employment, provided that the aggregate value of all of the Participant's Accounts (including, for this purpose, "deferred shares" as defined in the EDCP) under the Plan is at least $25,000 when the Participant terminates employment.

(c) Retirement-Eligible With Valid Payment Election. If the Participant is a Retirement-Eligible Participant and has made a valid payment election, the Participant's Pre-2005 Accounts shall be paid in accordance with the payment option elected, provided that the aggregate value of all of the Participant's Accounts under the Plan is at least $25,000 (including, for this purpose, "deferred shares" as defined in the EDCP) when the Participant terminates employment.

ARTICLE IX. PAYMENT OF NON-GRANDFATHERED AMOUNTS

9.01. Payment of Non-Grandfathered Amounts Upon Death. If a Participant dies before the Participant's Post-2004 Accounts have been distributed in full, the value of the Participant's Post-2004 Accounts shall be paid in a lump sum to the Participant's Beneficiary on the date that is 30 days after the date of the Participant's death (or, if that date is not a business day, the first business day thereafter). However, the Plan Administrator may make payment on any other day to the extent that such payment is treated as being paid on the date specified in the previous sentence under applicable Treasury Regulations, which permit payment to be made within thirty days before the specified date and later within the same calendar year, or by December 31 of the first calendar year following the calendar year during which the death occurs. For purposes of determining the amount payable to the Beneficiary, the Participant's Post-2004 Accounts will be valued as of the date the payment is processed.

9.02. Form of Payment for Non-Grandfathered Amounts Paid Upon a 409A Separation from Service. A Participant may elect, at the time and in the manner described in Section 9.03, below, to have the value of the Participant's Post-2004 Accounts paid under one of the following options, subject to the limits in Section 9.04, below (regarding delays for 409A Key Employees) and Section 9.05, below (special rules for separations during the first quarter of 2008):

(a) A lump sum payment as of the first business day that is at least 30 days after the Participant's 409A Separation from Service;

(b) A lump sum payment as of the last business day in January of the calendar year immediately following the calendar year in which the Participant's 409A Separation from Service occurs; or

(c) From two to 10 annual installments (as elected by the Participant), each paid as of the last business day in January beginning with the January immediately following the calendar year in which the Participant's 409A Separation from Service occurs, until the elected number of installments have been paid, subject to Section 9.04(c) (involuntary cash-outs). This installment option is treated as the entitlement to a single payment for purposes of Treasury Regulation section 1.409A-2(b)(2)(iii).

However, the Plan Administrator may make payment on any other day to the extent that such payment is treated as being paid on the date specified above under Treasury Regulation section 1.409A-3(d), which permits payment to be made within thirty days before the specified date and later within the same calendar year, or, if later, within 2-1/2 months following the specified date, provided that the Participant is not permitted to designate the taxable year of payment.

9.03. Electing and Changing Payment Options for Non-Grandfathered Amounts.

(a) *Election of Payment Option.* A Participant shall elect a payment option for the Participant's Post-2004 Accounts in the form and manner prescribed by the Plan Administrator and during whichever of the following election periods applies to the Participant (except as provided in Section 9.05, below, with respect to a separation during the first quarter of 2008):

(1) Special Election Period in 2007. During the special election period designated by the Plan Administrator and ending no later than December 31, 2007, certain Employees as provided under the terms of the Plan as of the Effective Date were permitted to elect the payment option that will apply to the Employee's Post-2004 Accounts under the Plan in the event the Employee's 409A Separation from Service occurs on or after April 1, 2008.

(2) Election in Plan Year Before Initial Eligibility. An individual who is first eligible to make Elective Deferrals in a Plan Year beginning after the Effective Date, and who before such Plan Year has not earned any other benefit under the Plan (including the EDCP) may, during the annual enrollment period prescribed by the Plan Administrator that immediately precedes such Plan Year, elect the payment option that will apply to the individual's Post-2004 Accounts under the Plan, whether or not the individual also elects to make Elective Deferrals during such enrollment period.

(3) Initial Excess Benefit Plan Election. If, during a Plan Year, an Eligible Employee earns for the first time Automatic Contributions, and the benefit the Eligible Employee earns under the Plan for the Plan Year is equal only to the excess of amounts that would otherwise be allocated to the Participant's account in the 401(k) Plan in the absence of one or more limits applicable to tax-qualified plans over the amount actually credited to the Participant's account in the 401(k) Plan, the Participant may elect, in accordance with Treas. Reg. § 1.409A-2(a)(7)(iii), the payment option that will apply to the Participant's Post-2004 Accounts under the Plan during the period determined by the Plan Administrator that ends no later than January 31st of the calendar year immediately following the calendar year in which the Automatic Contributions are credited, but only if the Participant:

i. was not, during the Plan Year of such credit or any previous Plan Year beginning on or after the Effective Date, eligible to make an Elective Deferral;

ii. was not previously eligible to elect a payment option under this subsection (a);

iii. has not, in any calendar year prior to the calendar year of the contribution, accrued a benefit or deferred compensation under a plan as determined under Treas. Reg. § 1.409A-2(a)(7)(iii).

(b) *Irrevocability and Default Payment Option*. If a Participant does not make an election under paragraphs (a)(1), (a)(2), or (a)(3), above (including a Participant who is not eligible to make an election under any of those paragraphs), the Participant's initial payment election shall be the payment option described in subsection 9.02(a) (immediate lump sum), above. A Participant's initial payment election (including the default option described in the previous sentence) becomes irrevocable, and can be changed only in accordance with subsection (c), below, after (i) the deadline specified in paragraphs (a)(1) or (a)(3), for Participants eligible to make elections under those paragraphs, and (ii) December 31 of the Plan Year preceding the Plan Year in which the Participant first earns a credit under the Plan, for all other Participants.

(c) *Changing Payment Options*. A Participant may elect, in the form and manner prescribed by the Plan Administrator, to change the Participant's initial payment option determined under this Section 9.03, provided that:

(1) The Participant must make such election at least 12 months before the date of the Participant's 409A Separation from Service;

(2) If the election is made on or after January 1, 2009, the payment date for any lump sum or the start date for any series of installments provided for under the new payment option shall be the fifth anniversary of the payment date or start date that would have applied absent a change in payment option; and

(3) The Participant may change the Participant's payment option:

i. only once during 2008; and

ii. only once on or after January 1, 2009.

9.04. Payment of Non-Grandfathered Amounts Upon a 409A Separation from Service. The value of a Participant's Post-2004 Accounts shall be paid to the Participant upon the Participant's 409A Separation from Service in the form and at the time provided in Sections 9.02 and 9.03, above (except as provided in Section 9.05, below (special rules for first quarter of 2008)), subject to the following:

(a) *Delay for 409A Key Employees*. If the Participant is a 409A Key Employee on the date of the Participant's 409A Separation from Service, the payment date for any lump sum or the start date for any series of installments provided for under the applicable payment option shall be the later of (I) the first business day that is six months after the date of the Participant's 409A

Separation from Service, or (II) the otherwise applicable payment date or start date, subject to subsection (b) (death). If the start date of a series of installments occurs other than as of the last business day in January due to application of this paragraph, installments after the first installment shall be paid as of the last business day in January of each subsequent year, as scheduled without regard to the delay described in this subsection (a).

(b) *Death of Participant After 409A Separation from Service*. If the death of a Participant (including a 409A Key Employee described in subsection (a), above) occurs before the payment date for any lump sum or installment provided for under the applicable payment option, payment shall be made to the Participant's Beneficiary as provided in Section 9.01.

(c) *Involuntary Cash-Out*. If (i) the applicable payment option is the installment option described in subsection 9.02(c), above, and (ii) the aggregate value of all of the Participant's Accounts under the Plan (including, for this purpose, "deferred shares" as defined in the EDCP) determined as of the date of the Participant's 409A Separation from Service is less than 50% of the Pay Limit in effect for the calendar year in which the Participant's 409A Separation from Service occurs, the value of the Participant's Post-2004 Accounts shall be distributed in a lump sum on the start date that would otherwise have applied for the elected installments, taking into account any applicable delay for a 409A Key Employee described in subsection (a), above.

9.05. Special Rules for Payment of Non-Grandfathered Amounts Upon a 409A Separation from Service in First Quarter of 2008. Special rules applied if a Participant's 409A Separation from Service occurred on or after January 1, 2008, and before April 1, 2008, as set forth in the Plan in effect as of the Effective Date

9.06. Valuation of Non-Grandfathered Accounts. For purposes of determining the amount of any payment of the Participant's Post-2004 Accounts, the Participant's Post-2004 Accounts will be valued as of the date the payment is processed, except that if payment is required under the terms of the Plan to be made as of the last business day in January of a Plan Year (for example, pursuant to Section 9.02(b)), the Participant's Post-2004 Accounts with respect to such payment shall be valued as of such last business day in January. For purposes of determining the amount of any annual installment payment of the Participant's Post-2004 Accounts, the value of the Participant's Post-2004 Accounts on the valuation date shall be divided by the remaining number of installments. No adjustment shall be made to the amount of any lump sum or installment after the valuation date.

9.07. Effect of Rehire on Non-Grandfathered Payments. If a Participant becomes eligible for a payment of benefits on account of a 409A Separation from Service and is rehired as an Employee before the Participant's Post-2004 Accounts have been distributed in full, payments shall be made as if the Participant had not been rehired. If the Participant again becomes eligible to make Elective Deferrals or receive Company Contributions following the Participant's rehire, the Plan Administrator shall

arrange separate accounting for Elective Deferrals and Company Contributions (and related earnings, gains, or losses) credited to the Participant's Post-2004 Accounts following the Participant's rehire, and the Participant's opportunity to make an initial distribution election under subsection 9.03(a)(2) (election in Plan Year before initial eligibility) shall be determined without regard to the benefits earned under the Plan prior to the Participant's rehire.

ARTICLE X. ADMINISTRATION

10.01. Amendment or Termination. This Plan may be amended from time to time for any purpose permitted by law or terminated at any time by written resolution of the Board or by IBM's chief human resources officer, but only if the chief human resource officer's action is not materially inconsistent with a prior action of the Board. The authority to amend or terminate the Plan shall include the authority to amend the procedure for amending or terminating the Plan and the authority to amend or terminate any related instrument or agreement.

10.02. Responsibilities.

(a) The following persons and groups of persons shall severally have the authority to control and manage the operation and administration of the Plan as herein delineated:

(1) the Board,

(2) IBM's chief human resources officer, and

(3) the Plan Administrator and each person on any committee serving as the Plan Administrator.

Each person or group of persons shall be responsible for discharging only the duties assigned to it by the terms of the Plan.

(b) The Board shall be responsible only for approval of a resolution in accordance with Section 10.01 to amend or terminate the Plan.

(c) IBM's chief human resources officer may, pursuant to a duly adopted resolution, delegate to any officer or employee of IBM, or a committee thereof, authority to carry out any decision, directive, or resolution of IBM's chief human resources officer. IBM's chief human resources officer may appoint one or more executives employed by IBM to serve as Plan Administrator or as a committee to fulfill the function of Plan Administrator. The VP HR with functional responsibilities for IBM's benefit programs shall serve as the Plan Administrator if no such appointment is made by IBM's chief human resources officer.

(d) In the sole discretion of the Plan Administrator, the Plan Administrator shall have the full power and authority to:

(1) promulgate and enforce such rules and regulations as shall be deemed to be necessary or appropriate for the administration of the Plan;

(2) adopt any amendments to the Plan that are required by law;

(3) interpret the Plan consistent with the terms and intent thereof; and

(4) resolve any possible ambiguities, inconsistencies, and omissions.

All such determinations and interpretations shall be in accordance with the terms and intent of the Plan, and the Plan Administrator shall report such actions to IBM's chief human resources officer on a regular basis.

(e) IBM's chief human resources officer and the Plan Administrator may engage the services of accountants, attorneys, actuaries, investment consultants, and such other professional personnel as are deemed necessary or advisable to assist them in fulfilling their responsibilities under the Plan. IBM's chief human resources officer, the Plan Administrator, and their delegates and assistants will be entitled to act on the basis of all tables, valuations, certificates, opinions, and reports furnished by such professional personnel.

ARTICLE XI. GENERAL PROVISIONS

11.01. Funding.

(a) All amounts payable in accordance with this Plan shall constitute a general unsecured obligation of the Company. Such amounts, as well as any administrative costs relating to the Plan, shall be paid out of the general assets of the Company. In the sole discretion of IBM's chief human resources officer, a Participant's accounts under the Plan may be reduced to reflect allocable administrative expenses.

(b) The Company, the IBM's chief human resources officer, and the Plan Administrator do not guarantee the investment alternatives available under the Plan in any manner against loss or depreciation.

11.02. No Contract of Employment. Nothing herein contained shall be deemed to give any employee the right to be retained in the service of the Company or an affiliate or to interfere with the right of the Company or an affiliate to discharge any employee at any time without regard to the effect that such discharge may have upon the employee under the Plan. Nothing appearing in or done pursuant to the Plan shall be held or construed to create a contract of employment with the Company, to obligate the Company to continue the services of any employee, or to affect or modify any employee's terms of employment in any way or to give any person any legal or equitable right or interest in the Plan or any part thereof or distribution therefrom or against the Company except as expressly provided herein.

11.03. Facility of Payment. In the event the Plan Administrator determines that any Participant or Beneficiary receiving or entitled to receive benefits under the Plan is incompetent to care for such individual's affairs and in the absence of the appointment of a legal guardian of the property of the incompetent, benefit payments due under the Plan (unless prior claim thereto has been made by a duly qualified guardian, committee, or other legal representative) may be made to the spouse, parent, brother or sister, or other person, including a hospital or other institution, deemed by the Plan Administrator to have incurred or to be liable for expenses on behalf of such incompetent. In the absence of the appointment of a legal guardian of the property of a minor, any minor's share of benefits payable under the Plan may be paid to such adult or adults as in the opinion of the Plan Administrator have assumed the custody and principal support of such minor. The Plan Administrator, however, in its sole discretion, may require that a legal guardian for the property of such incompetent or minor be appointed before authorizing the payment of benefits in such situation. Benefit payments made under the Plan in accordance with determinations of the Plan Administrator pursuant to this Section 11.03 shall be a complete discharge of any obligation arising under the Plan with respect to such benefit payments.

11.04. Withholding Taxes. The Plan Administrator shall have the right to withhold all applicable taxes or other payments from benefits hereunder and to report information to government agencies when required to do so by law.

11.05. Nonalienation. No benefits payable under the Plan shall be subject to alienation, sale, transfer, assignment, pledge, attachment, garnishment, lien, levy, or like encumbrance. No benefit under the Plan shall in any manner be liable for or subject to the debts or liabilities of any person entitled to benefits under the Plan. Compliance with any domestic relations order relating to a Participant's Account that the Plan Administrator determines must be complied with under applicable law shall not be considered a violation of this provision; provided, however, that an administrative fee determined by the Plan Administrator shall be deducted from any Participant's Account that is subject to a domestic relations order.

11.06. Administration. All decisions, determinations, or interpretations the Board, IBM's chief human resources officer, the Plan Administrator, the Company, or any member, officer or employee thereof are authorized to make under the Plan (including the delegation of any authority hereunder to another party) shall be made in that party's sole discretion and shall be final, binding, and conclusive on all interested persons.

11.07. Construction. All rights hereunder shall be governed by and construed in accordance with federal law and, to the extent not preempted by federal law, the laws of the State of New York without regarding to the choice of law rules of any jurisdiction.

ARTICLE XII. CLAIMS PROCEDURE

If a Participant or Beneficiary believes they are entitled to have received benefits but have not received them, the Participant or Beneficiary must accept any payment made under the Plan and make prompt and reasonable, good faith efforts to collect the remaining portion of the payment, as determined under Treas. Reg. § 1.409A-3(g). For this purpose (and as determined under such regulation), efforts to collect the payment will be presumed not to be prompt, reasonable, good faith efforts, unless the Participant or Beneficiary provides notice to the Plan Administrator within 90 days of the latest date upon which the payment could have been timely made in accordance with the terms of the Plan and the regulations under Code Section 409A, and unless, if not paid, the Participant or Beneficiary takes further enforcement measures within 180 days after such latest date. In addition, a Participant or Beneficiary must exhaust any other claims procedures established by the Plan Administrator before initiating litigation.

Any limitations periods for filing claims in court that apply under the 401(k) Plan shall also apply under this Plan. This incorporation by reference is not intended to broaden the scope of the claims that are available under this Plan. For example, certain claims that may be pursued under the 401(k) Plan in certain circumstances (such as claims for breach of fiduciary duty) may not be pursued under this Plan.

Any action in court in connection with the Plan by, or on behalf of, any participant or beneficiary must be brought in the federal courts in New York, County of Westchester. By participating in the Plan, participants consent to jurisdiction and venue in courts in New York, County of Westchester to resolve any issues that may arise out of the Plan.

APPENDIX A

IBM EXECUTIVE DEFERRED COMPENSATION PLAN

Amended and Restated Effective January 1, 2000
Incorporating Amendments Effective Through January 1, 2008

INTRODUCTION

A. **Name of Plan and Purpose.** The IBM Executive Deferred Compensation Plan has been authorized by the Board of Directors of International Business Machines to be applicable effective on and after January 1, 1995. The purpose of this Plan is to attract and retain executives by providing a means for making compensation deferrals and matching company contributions for those employees eligible to participate in the Savings Plan (as defined in Article 1) with respect to whom compensation deferrals and company contributions under the Savings Plan are or would be limited by application of the limitations imposed on qualified plans by Sections 401(a)(17), 401(a)(30), and 415 of the Internal Revenue Code of 1986, as amended (the "Code").

B. **Legal Status.** This Plan is intended to constitute an unfunded deferred compensation plan for a select group of management or highly compensated employees under Sections 201(2), 301(a)(2), 401(a)(1), and 4021(b)(6) of the Employee Retirement Income Security Act of 1974, as amended. All benefits payable under the Plan shall be paid out of the general assets of the Company.

C. **Restatement**. The Plan is amended and restated herein effective as of January 1, 2000, incorporating amendments effective through January 1, 2008. The Plan is superseded, effective January 1, 2008, by the IBM Excess 401(k) Plus Plan (the "Excess Plan"), except as provided in Paragraph D, below, with respect to Grandfathered Amounts and Deferred Shares and as otherwise provided in the text of the Plan.

D. **Section 409A**.

(1) *Grandfathered Amounts*. Benefits earned and vested under the Plan before January 1, 2005, as adjusted for earnings, gains, or losses on those benefits ("Grandfathered Amounts") are treated as grandfathered for purposes of Section 409A of the Code. Grandfathered Amounts (including Grandfathered Amounts attributable to Deferred Shares) are subject to the terms of the Plan in effect on October 3, 2004, except to the extent such terms have been or are hereafter amended in a manner that does not constitute a "material modification," as determined under Section 409A of the Code. An amendment described in the preceding sentence may be accomplished through an amendment to this Plan document and/or through an amendment to the Excess Plan (or any successor plan) document. For recordkeeping purposes, Grandfathered Amounts shall be accounted for separately.

(2) *Non-Grandfathered Amounts*. With respect to benefits earned under the Plan other than Grandfathered Amounts described in Paragraph D(1) above ("Non-Grandfathered Amounts"), the Plan is intended, and shall be construed, to comply with the requirements of Section 409A of the Code:

(A) On and after January 1, 2005, and before January 1, 2008, the Plan was operated in good faith compliance with the requirements of Section 409A of the Code with respect to Non-Grandfathered Amounts. In this respect, (I) the timing of deferral elections was modified as described in Articles 2.02(b) and 2.02(f), (II) the application of deferral elections was modified as described in Article 3.01, and (III) distribution rules were modified as described in Article 5.04. In addition, any payment made during this period that was contingent upon a "termination of employment" or "retirement," was contingent upon a "separation from service" (as defined in accordance with a good faith, reasonable interpretation of Section 409A of the Code).

(B) On and after January 1, 2008:

(i) Non-Grandfathered Amounts that are not attributable to Deferred Shares shall be distributed in accordance with the provisions of the Excess Plan (or any successor plan).

(ii) Non-Grandfathered Amounts that are attributable to Deferred Shares shall be distributed in accordance with the provisions of ARTICLE 9 of this Plan.

Notwithstanding anything to the contrary in this Paragraph D, in no event shall the Company, its officers, directors, employees, parents, subsidiaries, or affiliates be liable for any additional tax, interest, or penalty incurred by a Participant or Beneficiary as a result of the Plan's failure to satisfy the requirements of Section 409A of the Code, or as a result of the Plan's failure to satisfy any other applicable requirements for the deferral of tax.

IBM EXECUTIVE DEFERRED COMPENSATION PLAN

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ARTICLE 1. DEFINITIONS

The following words and phrases as used herein have the following meanings unless a different meaning is required by the context:

1.01 "**Accounts**" shall mean the Company Account and the Deferral Account.

1.02 "**Beneficiary**" shall mean a person other than a Participant who is designated by a Participant or by the terms of the Plan to receive a benefit under the Plan by reason of the death of the Participant.

1.03 "**Board**" shall mean the Board of Directors of IBM.

1.04 "**Code**" shall mean the Internal Revenue Code of 1986, as amended from time to time. All citations to sections of the Code are to such sections as they may from time to time be amended or renumbered.

1.05 "**Committee**" shall mean the Executive Compensation and Management Resources Committee ("ECMRC") appointed by the Board or any other person or committee that the ECMRC has delegated its responsibilities to under the Plan.

1.06 "**Company**" shall mean International Business Machines Corporation ("IBM"), a New York corporation having its principal place of business at Armonk, New York, and its Domestic Subsidiaries, excluding Foreign Branches of the Company except as may be otherwise provided in these Articles.

1.07 "**Company Account**" shall mean, with respect to a Participant, all amounts credited to the Participant under Articles 3.02, 3.03, and 3.07, and earnings, gains, or losses on those amounts pursuant to Article 3.04.

1.08 "**Company Contributions**" shall mean the amount credited to a Participant under Articles 3.02 and 3.03.

1.09 "**Compensation**" shall mean the Participant's salary and annual incentive payment for a calendar year which would be payable to a Participant for services rendered to the Company after the Participant is no longer able to actively participate in the Savings Plan, or would have been unable to actively participate in the Savings Plan if the Participant was not an active participant in the Savings Plan, during the calendar year by reason of Code Section 401(a)(17) or Code Section 401(a)(30). A Participant's Compensation will be determined without regard to a Participant's election to make compensation reduction contributions under the Savings Plan, or under a cafeteria plan pursuant to Code Section 125, or to make Deferrals under this Plan. Compensation shall also include, solely for purposes of Article 3.07, the amount of any RSUs or performance share units that are determined to be eligible for deferral in accordance with Article 3.07.

1.10 "**DCP Participant**" shall mean a Participant who, for a calendar year, was offered the opportunity by the Company to defer up to 100% of his or her annual incentive payment payable for that calendar year.

1.11 "**Deferral Account**" shall mean, with respect to a Participant, the Participant's account balance under the Deferred Compensation Plan that has been transferred to this Plan, all amounts credited to a Participant under Article 3.01 and earnings, gains, or losses on those amounts pursuant to Article 3.04.

1.12 "**Deferral Election Agreement**" shall mean the agreement entered into by the Participant pursuant to Article 2.02 under which he or she elects to defer a portion of his or her Compensation under this Plan.

1.13 "**Deferrals**" shall mean the amount credited to a Participant under Article 3.01.

1.14 "**Deferred Compensation Plan**" shall mean the incentive compensation deferral program established by IBM in November 1993.

1.15 "**Deferred Shares**" means a credit to a Participant's Company Account as described in Article 3.07.

1.16 "**Domestic Subsidiary**" shall mean a Subsidiary organized and existing under the laws of the United States or any state, territory, or possession thereof; provided however, that the Plan shall not be deemed to cover the employees of any Domestic Subsidiary unless authorized by the Company's chief human resources officer.

1.17 "**ERISA**" shall mean the Employee Retirement Income Security Act of 1974, as amended from time to time.

1.18 "**Effective Date**" shall mean January 1, 1995.

1.19 "**Eligible Employee**" shall mean, for a calendar year, a domestic executive employee of the Company.

1.20 "**Excess Plan**" shall mean the IBM Excess 401(k) Plus Plan, effective as of January 1, 2008, as amended from time to time.

1.21 "**Grandfathered Amounts**" has the meaning provided in Paragraph D(1) of the Introduction to this Plan.

1.22 "**IBM**" shall mean International Business Machines Corporation, any predecessor, or any successor by merger, purchase, or otherwise.

1.23 "**Non-Grandfathered Amounts**" has the meaning provided in Paragraph D(2) of the Introduction to this Plan.

1.24 "**Participant**" shall mean each Eligible Employee who has made the election described in Article 2.02(a) or 3.07, who is credited with an amount under Article 3.03, or whose account balance under the Deferred Compensation Plan has been transferred to the employee's Deferral Account under this Plan.

1.25 "**Plan**" shall mean this IBM Executive Deferred Compensation Plan, as now in effect or as hereafter amended.

1.26 "**Plan Administrator**" shall mean a person or a committee appointed pursuant to ARTICLE 7 which shall be responsible for reporting, recordkeeping, and related administrative requirements. If appointed as a committee, any one of the members of the committee may act individually on behalf of the committee to fulfill the committee's duties. As of the Effective Date, the Director of Executive Compensation has been appointed as the Plan Administrator.

1.27 "**Plan Year**" shall mean the calendar year with the first Plan Year commencing on January 1, 1995.

1.28 "**PSU**" shall mean a performance share unit payable under an award granted under a Company Long-Term Performance Plan.

1.29 "**RSU**" shall mean a restricted stock unit payable under an award granted under a Company Long-Term Performance Plan.

1.30 "**Savings Plan**" shall mean the IBM TDSP 401(k) Plan before October 1, 2002, the IBM Savings Plan on or after October 1, 2002 and before January 1, 2008, and the IBM 401(k) Plus Plan on or after January 1, 2008, each as amended from time to time.

1.31 "**Subsidiary**" shall mean a corporation or other form of business organization the majority interest of which is owned, directly or indirectly, by the Company.

ARTICLE 2. PARTICIPATION

2.01 **Eligibility**

Eligibility is limited, except as provided below, to U.S. executive level Eligible Employees of IBM and selected Domestic Subsidiaries whose rate of annual Compensation (defined as salary and annual incentive rate) is $150,000 or more for calendar year 1995 (adjusted periodically thereafter based on industry trends and government guidelines), or who are members of the Company's Senior Management Group regardless of rate of annual Compensation. For this purpose, the defining of "selected Domestic Subsidiaries", the "executive level" and "Senior Management Group", as well as the ability to change the rate of annual Compensation threshold are delegated to the chief human resources officer of the Company in his or her sole discretion and are subject to change. Notwithstanding the above, non-U.S. executives designated by the chief human resources officer are eligible to elect to defer PSUs and RSUs under this Plan. The Committee shall notify employees of their eligibility for participation in the Plan as soon as practicable after the chief human resources officer has made its determination that such employees qualify as Eligible Employees for a calendar year.

2.02 **Participation**

(a) No later than the end of the calendar year immediately preceding the first day of the calendar year during which an Eligible Employee desires to have contributions credited on his or her behalf pursuant to Article 3.01, an Eligible Employee must execute a Deferral Election Agreement authorizing Deferrals under this Plan for such year in accordance with the provisions of Article 3.01.

(b) If an Eligible Employee becomes an employee of the Company during a calendar year, he or she may execute a Deferral Election Agreement as soon as practical after his or her date of hire. Effective January 1, 2005, a new Eligible Employee may execute a Deferral Election Agreement within 30 days after becoming eligible. The Deferral Election Agreement shall apply to Compensation earned by the Eligible Employee in the payroll periods beginning after such agreement is submitted to the Committee.

(c) Each Deferral Election Agreement under the Plan shall be irrevocable for the calendar year to which it relates.

(d) Irrespective of whether an employee has made the election described above, any employee who has been selected by the Committee to have Company Contributions credited on his or her behalf pursuant to Article 3.03 shall be a Participant.

(e) As a condition to participation in the Plan, a Participant may also be required by the Committee to provide such other information as the Committee may deem necessary to properly administer the Plan.

(f) A DCP Participant's Deferral Election Agreement with respect to his or her annual incentive payment for calendar year 2005 must be made on or before June 30, 2005 (in compliance with the rule for performance pay under Section 409A of the Code). A DCP Participant's Deferral Election Agreement with respect to his or her annual incentive payment for a calendar year that begins after December 31, 2005 must be made before the beginning of such calendar year.

2.03 **Application of this Article After 2007**

This Article 2 shall cease to apply after December 31, 2007. An individual who was not a Participant on December 31, 2007, shall not become a Participant after that date. Each individual who was a Participant on December 31, 2007, ceased to be a Participant on that date except to the extent that, on that date, Grandfathered Amounts and/or Deferred Shares were credited to the individual's Account.

ARTICLE 3. CONTRIBUTIONS

3.01 Amount of Deferral Contributions

For each payroll period that an Eligible Employee has Compensation beginning on or after the effective date of an Eligible Employee's Deferral Election Agreement, his or her Deferral Account shall be credited with an amount of Deferrals. The amount of Deferrals shall be equal to the designated percentage of Compensation elected by the Participant in his or her Deferral Election Agreement. Under the Deferral Election Agreement, the Eligible Employee may elect to forego receipt of amounts equivalent to 1%, 2%, 3%, 4%, 5%, 6%, 7%, 8%, 9%, 10%, 11%, 12%, 13%, 14% or 15% (or, effective January 1, 2002, up to 80% in 1% increments) of the Employee's Compensation (other than his or her annual incentive payment) for each pay period during which the election is in effect, and in the event an Eligible Employee is a DCP Participant for the calendar year, he or she may defer up to 100% of his or her annual incentive payment for the calendar year (provided that, effective January 1, 2007, if the individual is not an Eligible Employee at the beginning of such calendar year, the maximum percentage of his or her annual incentive payment for the calendar year that may be deferred shall be limited, as applicable, in accordance with the following rules: if the individual became an Eligible Employee and submitted a Deferral Election Agreement during the period of January 1-February 15 of the calendar year, the maximum percentage is 79%; if the individual became an Eligible Employee and submitted a Deferral Election Agreement during the period of February 16-May 15 of the calendar year, the maximum percentage is 62%; if the individual became an Eligible Employee and submitted a Deferral Election Agreement during the period from May 16-August 15 of the calendar year, the maximum percentage is 46%; and if the individual became an Eligible Employee after August 16 of the calendar year, then no annual incentive may be deferred for the calendar year). In addition, any Company officer who is subject to 162(m) of the Internal Revenue Code may defer up to 100% of his or her salary. For calendar years 2006 and 2007, any portion of an Eligible Employee’s annual incentive payment that is a deal team or other transactional payment under the Engagement Team Bonus Plan, the Global Dealmaker Plan, or the Managing Directors Incentive Plan is not eligible for deferral.

Deferrals under this Article 3.01 shall commence for payroll periods for a calendar year at such time as the Participant may no longer actively participate in the Savings Plan for the calendar year (or would have been unable to actively participate in the Savings Plan if the Participant was an active participant in the Savings Plan for the calendar year) by reason of Code Section 401(a)(17) or Code Section 401(a)(30) and has Compensation. No Deferrals may be made hereunder prior to such time, except for the deferral of a DCP Participant's annual incentive payment. On and after January 1, 2007, if a Participant takes a hardship withdrawal under the Savings Plan, Deferrals under this Article 3.01 will be cancelled for the remainder of the calendar year in which the hardship was taken.

3.02 **Matching Contributions**

Effective before January 1, 2005, the amount of Company Matching Contributions credited to a Participant for each payroll period shall be equal to 50% of the Participant's Deferrals for the payroll period; provided however, that no Company Matching Contributions will be made for a Participant's Deferrals in excess of 6% of the Participant's Compensation for that payroll period. Company Matching Contributions will be made in units of IBM Stock with no right to transfer such units, except as otherwise provided in this Plan.

Effective January 1, 2005, the amount of Company Matching Contributions credited to a Participant who is not a 401(k) Pension Program Participant (as defined in the Savings Plan) for each payroll period shall be equal to 50% of such Participant’s Deferrals for the payroll period and, effective January 1, 2005, the amount of Company Matching Contributions credited to a Participant who is a 401(k) Pension Program Participant shall be equal to 100% of such Participant’s Deferrals for the payroll period; provided, however, that in neither case shall Company Matching Contributions be made for a Participant’s Deferrals in excess of 6% of the Participant’s Compensation for that payroll period. Company Matching Contributions will be made in units of IBM Stock with no right to transfer such units, except as otherwise provided in this Plan. No Company Matching Contributions shall be made to a Participant who is a 401(k) Pension Program Participant unless such Participant has, on or before the last day of the payroll period to which such Company Matching Contributions relate, attained his Program Eligibility Date (as defined in the Savings Plan).

3.03 **Additional Company Contributions**

On behalf of any Participant, or any Eligible Employee who is not otherwise a Participant for a particular calendar year, IBM may make any award under this Plan, including an additional amount of Company Matching Contributions or other Company Contributions, in accordance with the terms of the agreement evidencing such award, and the terms of this Plan to the extent not inconsistent with the terms of the agreement.

3.04 **Investment of Accounts**

A Participant's Deferral Account shall be treated as if the Participant had invested it in certain Savings Plan investment funds in accordance with ARTICLE 4. Except as provided in Article 3.07 (regarding Deferred Shares), a Participant's Company Account shall be treated as if it had been invested in the IBM Stock Fund under the Savings Plan; provided however, that in the event a Participant retires from the Company and does not elect to have the entire amount of his or her Accounts then paid to him or her, any amounts credited to the Participant's Company Account after retirement will be treated as if they were transferred to the Participant's Deferral Account for purposes of this Article 3.04 and Article 4.

3.05 **Vesting of Accounts**

A Participant always shall be fully vested in his or her Accounts, except as specified in an agreement between IBM and a Participant with respect to an award of additional Company Contributions.

3.06 **Individual Accounts**

The Committee shall maintain, or cause to be maintained, records showing the individual balances of each Participant's Accounts. Periodically, each Participant shall be furnished with a statement setting forth the value of his or her Accounts.

3.07 **Deferral of RSUs or Performance Share Units**

A Participant may also elect, on a form provided by the Company, to defer as Deferred Shares the amount of any RSUs or PSUs that are determined by the Company to be eligible for deferral under this Plan, at the time such RSU or PSU would otherwise be paid to the Participant. For Deferrals prior to January 1, 2006, such election must be made at the time specified by the Plan Administrator and prior to the end of the vesting period of the PSUs and the RSUs. On and after January 1, 2006, an election to defer RSUs must be made no later than 30 days after the date of the grant of such RSUs, and an election to defer PSUs must be made no later than six months prior to the end of the performance period to which the PSUs relate. Notwithstanding the above, for all Non-U.S. executives who are eligible to defer RSUs or PSUs under this Plan, an election to defer any RSUs or PSU, must be made prior to the end of the applicable vesting or performance period. The amount of Deferred Shares shall be determined under the terms of the applicable award and the Participant’s deferral election and shall be credited to the Participant’s Company Account as units of IBM stock, with no right to transfer such units. No Company Matching Contributions shall be credited for any amounts deferred under this Article of the Plan.

3.08 **Application of this Article After 2007**

After December 31, 2007:

(a) Deferrals with respect to annual incentive payments paid during the first quarter of 2008 shall be determined and credited to Participants’ Accounts in accordance with Participant Deferral Election Agreements made in 2006 for payments with respect to 2007 pursuant to Articles 2.02 and 3.01, and such deferrals shall be credited under the Excess Plan (and any matching or other contributions with respect to such deferrals shall be determined under the Excess Plan);

(b) Deferred Shares shall continue to be credited as units of IBM stock in accordance with elections made by Participants on or before December 31, 2007 pursuant to Article 3.07; and

(c) Articles 3.04 through 3.06 shall continue to apply with respect to Grandfathered Amounts.

Otherwise, this ARTICLE 3 shall cease to apply after December 31, 2007, and no deferral elections shall be made under the Plan after that date.

ARTICLE 4. INVESTMENT OF DEFERRALS AND DEFERRAL ACCOUNTS

4.01 Deemed Savings Plan Investments; Participant Control

A Participant shall designate the proportions in which his or her Deferrals shall be treated as if they had been allocated among any or all of the investment funds under the Savings Plan, other than the mutual fund window. If the Participant does not provide investment instructions, his or her Deferrals shall be treated as if they had been allocated to the default investment fund under the Savings Plan.

The Committee, in its discretion (which discretion may be delegated to the Treasurer or other executive officer of IBM), from time to time may determine that any Savings Plan investment fund may be terminated as an investment measure under this Plan.

A Participant may elect to invest his or her Deferrals entirely in any one of the funds or may elect any combination in 5% multiples.

Notwithstanding anything else in ARTICLE 4, if any portion of a Participant's Deferrals are covered under the IBM Buy-First Executive Equity Program, such Deferrals are subject to the investment limitations specified under that program.

4.02 Change of Investment Selection on Future Deferrals

A Participant may elect to change his or her investment selection for future Deferrals once per month (and, effective January 1, 2002, twice per month). The Participant must make this election in the manner prescribed by the Committee.

4.03 Change of Investment Selection on Existing Deferral Accounts

(a) Before January 1, 2008, with regard to a Participant's existing Deferral Account balance, a Participant may elect to transfer balances among the available Savings Plan investment funds once per month; provided however, that the portion of the Deferral Account of a Company officer that is allocated to the IBM Stock Fund may not be transferred to another investment fund while the officer remains in Company employment. The Participant must make this election in the manner and pursuant to the rules prescribed by the Committee and Plan Administrator.

(b) On or after January 1, 2008, a Participant may elect, in such form and at such time in advance as may be prescribed by the Plan Administrator, to transfer balances in his or her Deferral Account among the available Savings Plan investment funds, provided that:

(ii) Transfers must be made in multiples of 1%, provided that the minimum amount transferred shall be $250 if that is greater than 1% (provided, however, that the Plan Administrator may specify a different percentage and/or a different dollar amount to be applied in this paragraph); and

(iii) Any restrictions on transfers into or out of investment funds that apply under the Savings Plan shall also apply under the Plan.

The Committee may impose such additional rules and limitations upon transfers between investment funds as the Committee may consider necessary or appropriate.

4.04 **Application of this Article After 2007**

Article 4.03 shall continue to apply to Grandfathered Amounts on and after January 1, 2008. Articles 4.01 and 4.02 shall cease to apply after December 31, 2007.

ARTICLE 5. PAYMENT OF ACCOUNTS

5.01 **Commencement of Deferral Payments**

A Participant shall receive payment of his or her Accounts upon the Participant's (1) termination of employment from the Company for any reason other than retirement from the Company or (2) retirement from the Company with a balance of less than $25,000 in his or her Accounts, as soon as administratively feasible following termination of employment. Any other Participant who retires from the Company shall be entitled to receive payment of his or her Accounts as of the January 31 following the calendar year during which the Participant had a termination of employment from the Company.

5.02 **Method of Payment**

Payment of Accounts shall be made in a single lump sum payment. Payments shall be in cash, except that Deferred Shares shall be paid in shares of IBM stock. Notwithstanding the foregoing, a Participant with a balance of at least $25,000 in his or her Accounts who retires from the Company may elect to receive (1) a lump sum payment upon his or her termination of employment from the Company, (2) a lump sum payment as of the January 31 following the calendar year during which the Participant has a termination of employment from the Company, or (3) up to ten ratable annual installment payments of the balance in his or her Accounts commencing as of the January 31 following the calendar year during which the Participant had a termination of employment from the Company. For this election to be effective, at least one full calendar year must pass between the calendar year the Participant makes the election and the calendar year the Participant has a termination of employment from the Company; provided, however, that:

(i) effective July 31, 2001 and before January 1, 2008, such election shall be effective if it is made at least six months in advance of, and in a calendar year preceding, the Participant’s termination of employment; and

(ii) effective January 1, 2008, such election shall be effective if it is made at least twelve months in advance of the Participant’s termination of employment.

The Participant must make this election in the manner prescribed by the Committee and may make a separate election with respect to any Deferred Shares allocated to his or her Company Account. For purposes of this Plan, “retires” means (I) attainment of at least age 55 with at least 15 years of service or age 62 with at least 5 years of service or at least age 65 with at least 1 year of service at termination of employment with the Company, (II) attainment of at least 25 years of service as of June 30, 1999, and completion of at least 30 years of service as of termination of employment with the Company, (III) attainment, as of June 30, 1999, of at least age 40 with at least 10 years of service and completion of at least 30 years of service as of termination of employment with the Company, or (IV) eligibility for benefits under the IBM Long-

Term Disability Plan (and for purposes of this Plan, termination of employment shall be deemed to have occurred coincident with eligibility for benefits under the IBM Long-Term Disability Plan).

Upon application of a Participant, the Committee may authorize earlier payment to the Participant after termination of employment with the Company of an amount reasonably needed to satisfy the emergency need caused by an unforeseeable emergency that causes severe financial hardship to the Participant. If a Participant dies before payment of the entire balance of his or her Accounts, an amount equal to the unpaid portion thereof as of the date of his or her death shall be payable in one lump sum to his or her Beneficiary.

Dividend equivalents allocated with respect to a Participant's Deferred Shares will be paid to the Participant in cash on the date dividends are paid to IBM shareholders, or as soon as practical thereafter (but, with respect to Non-Grandfathered Amounts, no later than the latest date permissible under Section 409A of the Code). In connection with the spin-off of Kyndryl Holdings Corporation (Kyndryl) from IBM, the dividend equivalents described in the preceding sentence and payable with respect to the stock distribution of Kyndryl shares will be calculated as an amount of cash equal to the product obtained by multiplying (x) the number of shares of Kyndryl stock, rounded up to the nearest whole number of shares to the extent permitted by applicable law, that would have been distributed with respect to the applicable number of shares of IBM stock to which such Deferred Shares related immediately prior to the Distribution Date, by (y) the opening per share price of the Kyndryl stock on the New York Stock Exchange on the first trading day that occurs immediately following the Distribution Date.

Effective January 1, 2005, payment of Accounts (including in the event of a Participant's death as described in the preceding sentence) shall be made based on the value of the Account as of the date such payment is processed.

5.03 **Designation of Beneficiary**

Before January 1, 2008, each Participant's Beneficiary under this Plan shall automatically be the person or persons designated as the Participant's beneficiary under the Savings Plan even if such designation is found to be invalid under the provisions of ERISA or the Code. If no such Beneficiary designation is in effect at the time of the Participant's death, or if no designated Beneficiary survives the Participant, the Participant's Beneficiary shall be deemed to be the Participant's beneficiary according to the provisions of the Savings Plan.

On or after January 1, 2008, each Participant's Beneficiary under the Plan shall be the person or persons designated as the Participant's Beneficiary under the Plan, in the form and manner prescribed by the Plan Administrator. If no such beneficiary designation is in effect under the Plan at the time of the Participant's death, or if no designated beneficiary under the Plan survives the Participant, the Participant's Beneficiary shall be the person or persons determined to be the Participant's

beneficiary under the Savings Plan (including the default beneficiary rules under the latter plan, if no beneficiary is designated under that plan).

Such Beneficiary shall be entitled to receive the lump sum amount, if any, payable under the Plan upon the Participant's death pursuant to this Article 5.03; provided however, that the Beneficiary is alive at the time of the Participant's death.

5.04 **Distributions to Specified Employees**

Notwithstanding any provision in this ARTICLE 5 to the contrary, any payment of Non-Grandfathered Amounts under the Plan that becomes payable to a Participant who is a “specified employee” (within the meaning of Section 409A(a)(2)(B)(i) of the Code) within the first six months following his or her separation from service on or after January 1, 2005, shall instead be paid in the seventh month following such separation from service. If Non-Grandfathered Amounts are paid in installments the first of which would otherwise be paid before January 1, 2008, and in the first six months following the Participant’s separation from service, the first installment shall instead be paid in the seventh month following a separation from service, and the next annual installment, and each annual installment thereafter shall be paid on the anniversary of the date that the first installment was paid.

5.05 **Application of this Article After 2007**

This ARTICLE 5 shall apply on and after January 1, 2008 only with respect to Grandfathered Amounts.

ARTICLE 6. GENERAL PROVISIONS

6.01 Funding

(a) All amounts payable in accordance with this Plan shall constitute a general unsecured obligation of the Company. Such amounts, as well as any administrative costs relating to the Plan, shall be paid out of the general assets of the Company, to the extent not paid by a grantor trust established pursuant to paragraph (b) below. In the sole discretion of the Committee, a Participant's Accounts may be reduced to reflect allocable administrative expense.

(b) IBM may, for administrative reasons, establish a grantor trust for the benefit of Participants participating in the Plan. The assets of said trust will be held separate and apart from other Company funds and shall be used exclusively for the purposes set forth in the Plan and the applicable trust agreement, subject to the following conditions:

(i) The creation of said trust shall not cause the Plan to be other than "unfunded" for purposes of Title I of the Employee Retirement Income Security Act of 1974, as amended;

(ii) The Company shall be treated as "grantor" of said trust for purposes of Section 677 of the Code; and

(iii) Said trust agreement shall provide that its assets may be used to satisfy claims of the Company's general creditors in the event of its insolvency, and the rights of such general creditors are enforceable by them under federal and state law.

(c) Neither the Company nor the Committee guarantees the investment alternatives available under the Plan in any manner against loss or depreciation.

6.02 No Contract of Employment

Nothing herein contained shall be deemed to give any employee the right to be retained in the service of the Company or an Affiliate or to interfere with the right of the Company or an Affiliate to discharge any employee at any time without regard to the effect that such discharge may have upon the employee under the Plan. Nothing appearing in or done pursuant to the Plan shall be held or construed to create a contract of employment with the Company, to obligate the Company to continue the services of any Employee, or to affect or modify any Employee's terms of employment in any way or to give any person any legal or equitable right or interest in the Plan or any part thereof or distribution therefrom or against the Company except as expressly provided herein.

6.03 **Facility of Payment**

In the event the Plan Administrator determines that any Participant or Beneficiary receiving or entitled to receive benefits under the Plan is incompetent to care for his or her affairs and in the absence of the appointment of a legal guardian of the property of the incompetent, benefit payments due under the Plan (unless prior claim thereto has been made by a duly qualified guardian, committee, or other legal representative) may be made to the spouse, parent, brother or sister, or other person, including a hospital or other institution, deemed by the Plan Administrator to have incurred or to be liable for expenses on behalf of such incompetent. In the absence of the appointment of a legal guardian of the property of a minor, any minor's share of benefits payable under the Plan may be paid to such adult or adults as in the opinion of the Plan Administrator have assumed the custody and principal support of such minor.

The Plan Administrator, however, in its sole discretion, may require that a legal guardian for the property of any such incompetent or minor be appointed before authorizing the payment of benefits in such situation. Benefit payments made under the Plan in accordance with determinations of the Plan Administrator pursuant to this ARTICLE 6 shall be a complete discharge of any obligation arising under the Plan with respect to such benefit payments.

6.04 **Withholding Taxes**

The Plan Administrator shall have the right to withhold all applicable taxes or other payments from benefits hereunder and to report information to government agencies when required to do so by law.

6.05 **Nonalienation**

No benefits payable under the Plan shall be subject to alienation, sale, transfer, assignment, pledge, attachment, garnishment, lien, levy, or like encumbrance. No benefit under the Plan shall in any manner be liable for or subject to the debts or liabilities of any person entitled to benefits under the Plan. However, compliance with any domestic relations order relating to a Participant’s Account that the Plan Administrator determines must be complied with under applicable law shall not be considered a violation of this provision.

6.06 **Administration**

All decisions, determinations, or interpretations the Board, the Committee, the Plan Administrator, the Company or any member, officer or employee thereof are authorized to make under the Plan (including the delegation of any authority hereunder to another party) shall be made in that party's sole discretion and shall be final, binding, and conclusive on all interested persons.

6.07 **Construction**

The Plan is intended to constitute an unfunded deferred compensation arrangement for a select group of management or highly compensated employees, and all rights hereunder shall be governed by and construed in accordance with the laws of the State of New York to the extent not governed by the Employee Retirement Income Security Act of 1974, as amended.

6.08 **Application of this Article After 2007**

Effective January 1, 2008, the provisions of this Article 6 shall be superseded by the provisions of Article X of the Excess Plan for any portion of a Participant's Accounts that is not attributable to Deferred Shares.

ARTICLE 7. MANAGEMENT AND ADMINISTRATION

7.01 Amendment or Termination

This Plan may be amended from time to time for any purpose permitted by law or terminated at any time by written resolution of the Board or the Committee, but only if the Committee's action is not materially inconsistent with a prior action of the Board.

The authority to amend or terminate the Plan shall include the authority to amend the procedure for amending or terminating the Plan and the authority to amend or terminate any related instrument or agreement.

7.02 Responsibilities

(a) The following persons and groups of persons shall severally have the authority to control and manage the operation and administration of the Plan as herein delineated:

(i) the Board,

(ii) the Committee,

(iii) the chief human resources officer, and

(iv) the Plan Administrator and each person on any committee serving as the Plan Administrator.

Each person or group of persons shall be responsible for discharging only the duties assigned to it by the terms of the Plan.

(b) The Board shall be responsible only for designating those persons who will serve on the Committee and for approval of any resolution to amend or terminate the Plan.

(c) The Committee may, pursuant to a duly adopted resolution, delegate to the chief financial officer or the chief human resources officer, the Treasurer, the Plan Administrator or any other officer or employee of IBM, authority to carry out any decision, directive, or resolution of the Committee.

(d) The Committee shall appoint one or more executives employed by IBM to serve as Plan Administrator or as a committee to fulfill the function of Plan Administrator. In the sole discretion of the Plan Administrator, the Plan Administrator shall have the full power and authority to:

(i) promulgate and enforce such rules and regulations as shall be deemed be necessary or appropriate for the administration of the Plan;

(ii) adopt any amendments to the Plan that are required by law;

(iii) interpret the Plan consistent with the terms and intent thereof; and

(iv) resolve any possible ambiguities, inconsistencies, and omissions.

All such determinations and interpretations shall be in accordance with the terms and intent of the Plan, and the Plan Administrator shall report such actions to the Committee on a regular basis. Additionally, the chief human resources officer shall appoint and designate such other IBM employees as may be needed to provide adequate staff services to the Committee and the Plan Administrator.

(e) The Committee and the Plan Administrator may engage the services of accountants, attorneys, actuaries, investment consultants, and such other professional personnel as are deemed necessary or advisable to assist them in fulfilling their responsibilities under the Plan. The Committee, the Plan Administrator, and their delegates and assistants will be entitled to act on the basis of all tables, valuations, certificates, opinions, and reports furnished by such professional personnel.

(f) Effective July 31, 2001, the chief human resources officer of IBM, in addition to the powers set forth in Article 7.02(d), shall have the full power and authority to adopt and implement changes to the Plan relating to:

(i) amending the Plan to conform, to the extent he or she deems appropriate, to the Savings Plan, including but not limited to the authority to make changes related to maximum deferral percentages of pay, the amount of IBM match provided based on deferral percentage selected by the Participant, and vesting provisions;

(ii) the form and timing of distributions available under the Plan, including the procedures for distribution elections and rules regarding default distributions;

(iii) deferral elections, including the manner and timing of such elections;

(iv) the integration of other deferred compensation liabilities relating to newly hired or acquired employees; and

(v) any Plan administration rules that are consistent with the intent of the Plan and do not materially change the Company's liability.

7.03 **Application of this Article After 2007**

Effective January 1, 2008, the provisions of this Article 7 shall be superseded by the provisions of Article IX of the Excess Plan for any portion of a Participant's Accounts that is not attributable to Deferred Shares.

ARTICLE 8. CLAIMS PROCEDURE

Before January 1, 2008, IBM's Executive Compensation Department is responsible for advising Participants and Beneficiaries of their benefits under the Plan. In the event a Participant or Beneficiary believes he or she is entitled to benefits and has not received them, the Participant or Beneficiary must submit a claim to the Director of Executive Compensation, IBM Corporation, New Orchard Road, Armonk, New York 10504. A written decision setting forth its conclusions will be furnished by the Plan Administrator to the Participant or Beneficiary within 60 days after the request for review is received. Failure of the Plan Administrator to follow this procedure shall not, in and of itself, give rise to a cause of action for benefits hereunder. On and after January 1, 2008, claims shall be processed as described in the summary description for the Excess Plan.

Effective January 1, 2008, if a Participant or Beneficiary believes he or she is entitled to have received benefits with respect to his or her Non-Grandfathered Amounts that are attributable to Deferred Shares but has not received them, the Participant or Beneficiary must accept any payment made under the Plan and make prompt and reasonable, good faith efforts to collect the remaining portion of the payment, as determined under Treas. Reg. § 1.409A-3(g). For this purpose (and as determined under such regulation), efforts to collect the payment will be presumed not to be prompt, reasonable, good faith efforts, unless the Participant or Beneficiary provides notice to the Plan Administrator within 90 days of the latest date upon which the payment could have been timely made in accordance with the terms of the Plan and the regulations under Code Section 409A, and unless, if not paid, the Participant or Beneficiary takes further enforcement measures within 180 days after such latest date. In addition, a Participant or Beneficiary must exhaust any other claims procedures established by the Plan Administrator before initiating litigation.

ARTICLE 9. PAYMENT OF NON-GRANDFATHERED DEFERRED SHARES ON OR AFTER JANUARY 1, 2008

9.01 **Purpose**

This ARTICLE 9 describes the provisions of the Plan that apply on and after January 1, 2008 to Non-Grandfathered Amounts that are attributable to Deferred Shares ("NG Deferred Shares").

9.02 **Definitions**

The following words and phrases used in this ARTICLE 9 have the following meanings unless a different meaning is required by the context:

(a) "**409A Key Employee**" has the meaning described in the IBM Section 409A Umbrella Document.

(b) "**409A Separation from Service**" has the meaning described in the IBM Section 409A Umbrella Document.

(c) "**Pay Limit**" means, for a Plan Year, the limit on compensation that may be taken into account under a tax-qualified plan as determined under Code Section 401(a)(17).

(d) "**Retirement-Eligible Participant**" means a Participant who:

(i) when his or her 409A Separation from Service occurs, is (A) at least age 55 with at least 15 years of service, (B) at least age 62 with at least 5 years of service, (C) at least age 65 with at least 1 year of service, or (D) begins to receive benefits under the Company's long-term disability plan;

(ii) as of June 30, 1999, had at least 25 years of service and, when his or her 409A Separation from Service occurs, has at least 30 years of service; or

(iii) as of June 30, 1999, was at least age 40 with at least 10 years of service and, when his or her 409A Separation from Service occurs, has at least 30 years of service.

For purposes of this definition, "year of service" means a year of "Eligibility Service" as defined in the IBM Personal Pension Plan.

9.03 **Payment Upon Death**

If a Participant dies before his or her NG Deferred Shares are distributed in full, his or her NG Deferred Shares shall be paid in full in shares of IBM stock to the Participant's Beneficiary on the date that is 30 days after the date of the Participant's death (or, if that date is not a business day, the first business day thereafter). However, the Plan Administrator may make payment on any other day to the extent

that such payment is treated as being paid on the date specified in the previous sentence under Treasury Regulation section 1.409A-3(d), which permits payment to be made within thirty days before the specified date and later within the same calendar year, or, if later, within 2-1/2 months following the specified date, provided that the Participant is not permitted to designate the taxable year of payment.

9.04 **Form of Payment for Amounts Paid Upon a 409A Separation from Service**

A Participant may elect, at the time and in the manner described in Article 9.05, below, to have his or her NG Deferred Shares paid under one of the following options, subject to the limits in Article 9.06, below (regarding delays for 409A Key Employees) and Article 9.07, below (special rules for separations during the first quarter of 2008):

(a) A lump sum payment as of the first business day that is at least 30 days after the Participant's 409A Separation from Service;

(b) A lump sum payment as of January 31 of the calendar year immediately following the calendar year in which the Participant's 409A Separation from Service occurs; or

(c) From two to 10 annual installments (as elected by the Participant), each paid as of January 31 beginning with the January 31 immediately following the calendar year in which the Participant's 409A Separation from Service occurs, until the elected number of installments have been paid, subject to Article 9.06(c) (involuntary cash-outs). This installment option is treated as the entitlement to a single payment for purposes of Treasury Regulation section 1.409A-2(b)(2)(iii).

However, the Plan Administrator may make payment on any other day to the extent that such payment is treated as being paid on the date specified above under Treasury Regulation section 1.409A-3(d), which permits payment to be made within thirty days before the specified date and later within the same calendar year, or, if later, within 2-1/2 months following the specified date, provided that the Participant is not permitted to designate the taxable year of payment. A Participant's NG Deferred Shares shall be paid in shares of IBM stock.

9.05 **Electing and Changing Payment Options**

(a) **Election of Payment Option.** A Participant shall elect a payment option for his or her NG Deferred Shares in the form and manner prescribed by the Plan Administrator and during the special election period in 2007 (except as provided in Article 9.07, below, with respect to a separation during the first quarter of 2008). During the special election period designated by the Plan Administrator and ending no later than December 31, 2007, an Eligible Employee may elect the payment option that will apply to his or her NG Deferred Shares under the Plan in the event his or her 409A Separation from Service occurs on or after April 1, 2008, if the Eligible Employee:

(i) is eligible to make elective deferrals under the Excess Plan in 2008;

(ii) on October 31, 2007, had a balance in his or her Accounts; or

(iii) on October 31, 2007, had a valid election on file for Deferrals in 2007.

Accordingly, an individual who first became an executive after October 31, 2007, and who is not eligible to make elective deferrals under the Excess Plan in 2008, is not eligible to make a payment election under this paragraph (a), even if he or she deferred pay under the Plan in 2007.

(b) **Irrevocability and Default Payment Option.** If a Participant does not make an election under subsection (a), above (including a Participant who is not eligible to make an election under that subsection), the Participant's initial payment election shall be the payment option described in Article 9.04(a) (immediate lump sum), above. A Participant's initial payment election (including the default option described in the previous sentence) becomes irrevocable, and can be changed only in accordance with subsection (c), below, after the deadline specified in subsection (a).

(c) **Changing Payment Options.** A Participant may elect, in the form and manner prescribed by the Plan Administrator, to change the Participant's initial payment option determined under this Article 9.05, provided that:

(i) The Participant must make such election at least 12 months before the date of his 409A Separation from Service;

(ii) If the election is made on or after January 1, 2009, the payment date for any lump sum or the start date for any series of installments provided for under the new payment option shall be the fifth anniversary of the payment date or start date that would have applied absent a change in payment option; and

(iii) The Participant may change his or her payment option:

(A) only once during 2008; and

(B) only once on or after January 1, 2009.

9.06 **Payment of NG Deferred Shares Upon a 409A Separation from Service**

A Participant's NG Deferred Shares shall be paid to the Participant upon his or her 409A Separation from Service on or after January 1, 2008 in the form and at the time provided in Articles 9.04 and 9.05, above (except as provided in Article 9.07, below (special rules for first quarter of 2008)), subject to the following:

(a) **Delay for 409A Key Employees.** If the Participant is a 409A Key Employee on the date of his or her 409A Separation from Service, the payment date for any lump sum or the start date for any series of installments provided for under the applicable payment option shall be the later of (I) the first business day that is six months after the date of the Participant's 409A Separation from Service, or (II) the otherwise applicable payment date or start date, subject to subsection (b) (death). If the start date of a series of installments occurs other than as of January 31 due to application of this paragraph, installments after the first installment shall be paid as of January 31 of each subsequent year, as scheduled without regard to the delay described in this subsection (a).

(b) **Death of Participant After 409A Separation from Service.** If the death of a Participant (including a 409A Key Employee described in subsection (a), above) occurs before the payment date for any lump sum or installment provided for under the applicable payment option, payment shall be made to the Participant's Beneficiary as provided in Article 9.03.

(c) **Involuntary Cash-Out.** If (i) the applicable payment option is the installment option described in Article 9.04(c), above, and (ii) the aggregate value of all of the Participant's Deferred Shares (including Grandfathered and Non-Grandfathered Amounts) and all of his or her "accounts" under the Excess Plan determined as of the date of his or her 409A Separation from Service is less than 50% of the Pay Limit in effect for the calendar year in which the Participant's 409A Separation from Service occurs, the Participant's NG Deferred Shares shall be distributed in a lump sum on the start date that would otherwise have applied for the elected installments, taking into account any applicable delay for a 409A Key Employee described in subsection (a), above.

9.07 **Special Rules for Payment in First Quarter of 2008**

If a Participant's 409A Separation from Service occurs on or after January 1, 2008, and before April 1, 2008, the Participant's NG Deferred Shares shall be paid to the Participant in the form and at the time described below, except that such payments shall be subject to Article 9.06(a) (delay for 409A Key Employees) and Article 9.06(b) (death of Participant after 409A Separation from Service):

(a) **Non-Retirement-Eligible or Benefit Is Less than $25,000.** If the Participant is not a Retirement-Eligible Participant or if the aggregate value of all of the Participant's Deferred Shares (including Grandfathered and Non-Grandfathered

Amounts) and all of his or her "accounts" under the Excess Plan is less than $25,000 as of the date of his or her 409A Separation from Service, the Participant's NG Deferred Shares shall be paid in an immediate lump sum as described in Article 9.04(a), above;

(b) **Retirement-Eligible Without Valid Payment Election.** If the Participant is a Retirement-Eligible Participant but has not made a valid payment election, the Participant's NG Deferred Shares shall be paid in a lump sum as of the January 31 following the year of the Participant's 409A Separation from Service as described in Article 9.04(b), above, provided that the aggregate value of all of the Participant's Deferred Shares (including Grandfathered and Non-Grandfathered Amounts) and all of his or her "accounts" under the Excess Plan is at least $25,000 as of the date of his or her 409A Separation from Service.

(c) **Retirement-Eligible With Valid Payment Election.** If the Participant is a Retirement-Eligible Participant and has made a valid payment election, the Participant's NG Deferred Shares shall be paid in accordance with the payment option elected, as described in Article 9.04, above, provided that the aggregate value of all of the Participant's Deferred Shares (including Grandfathered and Non-Grandfathered Amounts) and all of his or her "accounts" under the Excess Plan is at least $25,000 as of the date of his or her 409A Separation from Service.

For purposes of this Article 9.07, a valid payment election is a payment election made at least six months before the Participant's 409A Separation from Service in a manner prescribed by the Plan Administrator. If a Participant did not make a valid payment election for his or her NG Deferred Shares, the Participant's valid payment election shall be his or her valid payment election for his or her Deferred Shares that are Grandfathered Amounts, if any.

9.08 **Valuation of NG Deferred Shares.**

For purposes of determining the amount of any lump sum, the Participant's NG Deferred Shares will be determined as of the date the payment is processed. For purposes of determining the amount of any annual installment, the Participant's remaining NG Deferred Shares will be determined as of the date the payment is processed and divided by the remaining number of installments. Any resulting partial share is retained in the Participant's Account.

9.09 **Effect of Rehire on Payment of NG Deferred Shares.**

If a Participant becomes eligible for a payment of NG Deferred Shares on account of a 409A Separation from Service and is rehired as an employee of the Company before his or her NG Deferred Shares have been distributed in full, payments shall be made as if the Participant had not been rehired.

9.10 **Payment of Dividend Equivalents on NG Deferred Shares.**

Dividend equivalents allocated with respect to a Participant's NG Deferred Shares will be paid to the Participant (or to the Beneficiary of a deceased Participant) in cash as soon as practicable after, but no later than 30 days following, the date dividends are paid to IBM shareholders. In connection with the spin-off of the Kyndryl Holdings Corporation (Kyndryl) from IBM, the dividend equivalents described in the preceding sentence and payable with respect to the stock distribution of Kyndryl shares will be calculated as an amount of cash equal to the product obtained by multiplying (x) the number of shares of Kyndryl stock, rounded up to the nearest whole number of shares to the extent permitted by applicable law, that would have been distributed with respect to the applicable number of shares of IBM stock to which such NG Deferred Shares related immediately prior to the Distribution Date, by (y) the opening per share price of the Kyndryl stock on the New York Stock Exchange on the first trading day that occurs immediately following the Distribution Date.

APPENDIX B
IBM SECTION 409A UMBRELLA DOCUMENT

For purposes of plans of International Business Machines or any member of its controlled group as determined under §414(b) or (c) of the Internal Revenue Code (collectively, "IBM") that are subject to § 409A of the Internal Revenue Code ("§ 409A"), any benefit subject to § 409A that is paid on account of a separation from service shall be paid on account of a "409A Separation from Service," as defined below. In addition, for purposes of applying the six-month delay described in § 409A(a)(2)(B)(i), a "specified employee" is a 409A Key Employee, as defined below.

1. The term **"409A Key Employee"** means, for each 12-consecutive-month period beginning on any April 1 that occurs after January 1, 2008 (an "effective period"), an individual who is a "specified employee" of IBM (within the meaning of Treas. Reg. § 1.409A-1(i)) within the 12-consecutive-month period ending on the December 31 immediately preceding the start of such effective period. For purposes of the preceding sentence, "specified employees" include:

(a) each employee of IBM on IBM's U.S. payroll, not to exceed 50, who is designated by IBM as an officer and whose pay (as defined under Treas. Reg. § 1.415(c)-2(d)(4)) exceeds the dollar limitation under § 416(i)(1)(A)(i) of the Internal Revenue Code ("§ 416 Pay Limit"); plus

(b) the highest paid Band A executives (as defined by IBM's rules and regulations) on IBM's U.S. payroll whose pay exceeds the § 416 Pay Limit (where pay is defined under Treas. Reg. § 1.415(c)-2(d)(4)), such that, when combined with the employees in subsection (a) (designated officers), there are no more than 50 "specified employees" on IBM's U.S. payroll; plus

(c) if the total number of individuals designated as "specified employees" under subsections (a) and (b) is less than 50, the highest paid other employees on IBM's U.S. payroll (where pay is defined under Treas. Reg. § 1.415(c)-2(d)(4)), such that, when combined with the employees in subsections (a) (designated officers) and (b) (Band A executives), there are no more than 50 "specified employees" on IBM's U.S. payroll; plus

(d) each employee of IBM who: (1) is entitled to a benefit that is subject to § 409A, (2) is not on a U.S. payroll, and (3) is considered to be an officer for purposes of identifying "specified employees" under Treas. Reg. § 1.409A-1(i).

2. The term **"409A Separation from Service"** means, effective January 1, 2009, a separation from service within the meaning of Treas. Reg. § 1.409A-1(h), which shall include, but not be limited to, the following events:

(a) A “termination of employment,” as that term is applied for purposes of the IBM 401(k) Plus Plan (except to the extent that an earlier event associated with such termination of employment is described in subsections (b) through (d), below);

(b) The start of a bridge leave or a pre-retirement planning leave;

(c) A permanent reduction in services to no more than 20% of the average level of services performed over the immediately preceding 36-month period (or the full period of services if less);

(d) The six-month anniversary of a leave of absence, when no services are performed (including paid and unpaid leave and including disability leave or any combination thereof) other than a military leave.

From January 1, 2008 through December 31, 2008, a “409A Separation from Service” means a good faith interpretation of “separation from service,” within the meaning of § 409A(a)(2)(A)(i), and includes the following rules:

i. A Participant who is on a bridge leave or a pre-retirement planning leave as of December 31, 2007, shall have a 409A Separation from Service as of December 31, 2007;

ii. If a Participant--

(1) during 2008 has an event described in paragraph (c) or has a six-month anniversary described in paragraph (d),

(2) does not otherwise incur a separation from service prior to December 31, 2008, and

(3) has not returned to active employment (or, in the case of an event described in (c), to full schedule employment) on or before December 31, 2008,

the Participant shall have a 409A Separation from Service as of December 31, 2008.

Exhibit 10.4

NONCOMPETITION AGREEMENT

In recognition of your critical role as a senior executive with International Business Machines Corporation ("IBM") and your access to IBM Confidential Information and/or IBM customer goodwill by virtue of your position, your membership on the Acceleration Team, and/or your appointment as an IBM Fellow; and/or as mutually agreed upon consideration for your promotion or hiring as a senior executive, including your eligibility for awards to be granted to you under an IBM Long-Term Performance Plan (which constitutes independent consideration for Paragraph 1(e) herein); and/or for other good and valuable consideration, you ("Employee" or "you") agree to the terms and conditions herein of this Noncompetition Agreement (the "Agreement"). Capitalized terms not otherwise defined shall have the meaning ascribed to them in Paragraph 2.

1. Covenants.

You acknowledge and agree that:

a) the compensation that you will receive in connection with this Agreement, including any equity awards, cash and/or other compensation, your position as a senior executive, and/or your appointment to or continued membership on the Acceleration Team or any successor team or group ("AT"), if applicable, and/or your appointment as an IBM Fellow, if applicable, is consideration for your work at IBM, your agreement to the terms and conditions of this Agreement, and your compliance with the post-employment restrictive covenants included in this Agreement.

b) (i) the business in which IBM and its affiliates (collectively, the "Company") are engaged is intensely competitive; (ii) your employment by IBM and/or your membership on the AT, if applicable, and/or your role as an IBM Fellow, if applicable, requires that you have access to, and knowledge of, IBM Confidential Information, including IBM Confidential Information that pertains not only to your business or unit, but also to the Company's global operations; (iii) you are given access to, and develop relationships with, actual and prospective customers of the Company at the time and expense of the Company; and (iv) by your training, experience and expertise, you and your services to the Company are, and will continue to be, extraordinary, special and unique.

c) (i) the disclosure of IBM Confidential Information would place the Company at a serious competitive disadvantage and would do serious damage, financial and otherwise, to the business of the Company; and (ii) you will keep in strict confidence, and will not, directly or indirectly, at any time during or after your employment with IBM, disclose, furnish, disseminate, make available, rely on or use, except in the course of performing your duties of employment with IBM, any IBM Confidential Information or any other trade secrets or confidential business and technical information of the Company or its customers or vendors, without limitation as to when or how you may have acquired such information.

d) (i) IBM Confidential Information, whether reduced to writing, maintained on any form of electronic media, or maintained in your mind or memory and whether compiled by the Company and/or you, is owned by the Company; (ii) IBM Confidential Information includes, but is not limited to, information that derives independent economic value from not being generally known to or readily ascertainable through proper means by others who can obtain economic value from its disclosure or use, and is the subject of efforts that are reasonable under the circumstances to maintain the secrecy of such information; (iii) IBM Confidential Information includes, but is not limited to, information that constitutes a trade secret of the Company; and (iv) the retention, disclosure and/or use of such IBM Confidential Information by you during or after your employment with IBM (except in the course of performing your duties and obligations to the Company) shall constitute a misappropriation of the Company's trade secrets.

e) during your employment with IBM and for twelve (12) months following the termination of your employment either by you or by IBM: (i) you will not directly or indirectly, within the Restricted Area, Engage in or Associate with (a) any Business Enterprise or (b) any competitor of the Company, if performing the duties and responsibilities of such engagement or association could result in you (1) intentionally or unintentionally using, disclosing, or relying upon IBM Confidential Information to which you had access by virtue of your job duties or other responsibilities with IBM or (2) exploiting customer goodwill cultivated in the course of your employment with IBM; however, in the event that your employment with IBM is terminated by IBM as a direct result of a resource action and not for Cause, the post-employment restriction in this clause will not apply; and (ii) you will not directly or indirectly solicit, for competitive business purposes, any actual or prospective customer of the Company which you were directly or indirectly involved with or exposed to confidential information about as part of your job responsibilities during the last twelve (12) months of your employment with IBM.

f) during your employment with IBM and for two (2) years following the termination of your employment either by you or by IBM for any reason, you will not directly or indirectly, within the Restricted Area, hire, solicit or make an offer to, or attempt to or participate or assist in any effort to hire, solicit, or make an offer to, any Employee of the Company to be employed or to perform services outside of the Company.

2. Definitions.

The following terms have the meanings provided below.

a) “Business Enterprise” means any entity that engages or intends to engage in, or owns or controls an interest in any entity that engages in or intends to engage in, competition with, or during your restrictive period becomes competitive with, any business unit or division of the Company in which you worked at any time during the three (3) year period prior to the termination of your employment.

b) “Cause” means, as reasonably determined by IBM, the occurrence of any of the following: (i) embezzlement, misappropriation of corporate funds or other material acts of dishonesty; (ii) commission or conviction of any felony or of any misdemeanor involving moral turpitude, or entry of a plea of guilty or nolo contendere to any felony or misdemeanor (other than a minor traffic violation or other minor infraction); (iii) engagement in any activity that you know or should know could harm the business or reputation of the Company; (iv) failure to adhere to the Company’s corporate codes, policies or procedures; (v) a breach of any covenant in any employment agreement or any intellectual property agreement, or a breach of any other provision of your employment agreement, in either case if the breach is not cured to the Company’s satisfaction within a reasonable period after you are provided with notice of the breach (no notice and cure period is required if the breach cannot be cured); (vi) failure by you to perform your duties or follow management direction, which failure is not cured to the Company’s satisfaction within a reasonable period of time after a written demand for substantial performance is delivered to you (no notice or cure period is required if the failure to perform cannot be cured); (vii) violation of any statutory, contractual or common law duty or obligation to the Company, including, without limitation, the duty of loyalty; (viii) rendering of services for any organization or engaging directly or indirectly in any business which is or becomes competitive with the Company, or which organization or business, or the rendering of services to such organization or business, is or becomes otherwise prejudicial to or in conflict with the interests of the Company; or (ix) acceptance of an offer to Engage in or Associate with any business which is or becomes competitive with the Company; provided, however, that the mere failure to achieve performance objectives shall not constitute Cause.

c) “Employee of the Company” means any employee of the Company who worked within the Restricted Area at any time in the twelve (12) month period immediately preceding any actual or attempted hiring, solicitation or making of an offer.

d) “Engage in or Associate with” includes, without limitation, engagement or association as a sole proprietor, owner, employer, director, partner, principal, joint venturer, associate, employee, member, consultant, or contractor. The phrase also includes engagement or association as a shareholder or investor during the course of your employment with IBM, and includes beneficial ownership of five percent (5%) or more of any class of outstanding stock of a Business Enterprise or competitor of the Company following the termination of your employment with IBM.

e) “IBM Confidential Information” is any information, whether or not labeled IBM Confidential, of a confidential or secret nature that is disclosed to you, or created or learned by you, in the course of your employment with the Company, that relates to the business of the Company, including but not limited to trade secrets. Examples of IBM Confidential Information include, but are not limited to: the Company’s formulae, patterns, compilations, programs, devices, methods, techniques, software, tools, systems, and processes, the Company’s selling, manufacturing, and servicing methods and business techniques, implementation strategies, and information about any of the foregoing, the Company’s training, service, and business manuals, promotional materials, training courses, and other training and instructional materials, vendor and product information, customer and prospective customer lists, other customer and prospective customer information, client data, global strategic plans, marketing plans, information about the Company’s management techniques and management strategies, information regarding long-term business opportunities, information regarding the development status of specific Company products, assessments of the global competitive landscape of the industries in which the Company competes, plans for investment in or acquisition, divestiture or disposition of products or companies or business units, expansion plans, financial status and plans, compensation information, and personnel information.

f) "Restricted Area" means any geographic area in the world in which you worked or for which you had job responsibilities, including supervisory responsibilities, during the last twelve (12) months of your employment with IBM. You acknowledge that IBM is a global company and that the responsibilities of certain IBM employees, including, without limitation, AT members, are global in scope.

3. Acknowledgements.

You acknowledge that a mere agreement not to disclose, use or rely on IBM Confidential Information after your employment by IBM ends would be inadequate, standing alone, to protect IBM's legitimate business interests. You acknowledge that disclosure of, use of, or reliance on IBM Confidential Information, whether or not intentional, is often difficult or impossible for the Company to detect until it is too late to obtain any effective remedy. You acknowledge that the Company will suffer irreparable harm if you fail to comply with Paragraph 1 or otherwise improperly disclose, use, or rely on IBM Confidential Information. You acknowledge that the restrictions set forth in Paragraph 1 are reasonable as to geography, scope and duration.

You acknowledge that you have the right to consult with counsel prior to signing this Agreement.

4. Injunctive Relief.

You agree that the Company would suffer irreparable harm if you were to breach, or threaten to breach, any provision of this Agreement and that the Company would by reason of such breach, or threatened breach, be entitled to injunctive relief in a court of appropriate jurisdiction, without the need to post any bond, and you further consent and stipulate to the entry of such injunctive relief in such a court prohibiting you from breaching, or further breaching, this Agreement. This Paragraph shall not, however, diminish the right of the Company to claim and recover damages in addition to injunctive relief.

5. Severability.

In the event that any one or more of the provisions of this Agreement shall be held to be invalid or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be affected or impaired thereby. Moreover, if any one or more of the provisions contained in this Agreement shall be held to be excessively broad as to duration, geographic scope, activity or subject, such provisions shall be construed by limiting and reducing them so as to be enforceable to the maximum extent allowed by applicable law. Furthermore, a determination in any jurisdiction that this Agreement, in whole or in part, is invalid or unenforceable shall not in any way affect or impair the validity or enforceability of this Agreement in any other jurisdiction.

6. Headings.

The headings in this Agreement are inserted for convenience and reference only and shall in no way affect, define, limit or describe the scope, intent or construction of any provision hereof.

7. Waiver.

The failure of IBM to enforce any terms, provisions or covenants of this Agreement shall not be construed as a waiver of the same or of the right of IBM to enforce the same. Waiver by IBM of any claim for breach or default by you (or by any other employee or former employee of IBM) of any term or provision of this Agreement (or any similar agreement between IBM and you or any other employee or former employee of IBM) shall not operate as a waiver of any other claim for breach or default.

8. Successors and Assigns.

This Agreement shall inure to the benefit of and be binding upon IBM, any successor organization which shall succeed to IBM by acquisition, merger, consolidation or operation of law, or by acquisition of assets of IBM and any assigns. You may not assign your obligations under this Agreement.

9. Disclosure of Existence of Covenants.

You agree that while employed by IBM and for two (2) years thereafter, you will communicate the contents of this Agreement to any person, firm, association, partnership, corporation or other entity which you intend to be employed by, associated with or represent, prior to accepting such employment, association or representation.

10. Notice to IBM of Prospective Position.

You agree that if, at any time during your employment or within twelve (12) months following the termination of your employment with IBM, you are offered and intend to accept a position with any person, firm, association, partnership, corporation or other entity other than the Company, you will provide the Senior Vice President & Chief Human Resources Officer for IBM Corporation with two (2) weeks' written notice prior to accepting any such position. This two (2) weeks' written notice is separate from any other notice obligations you may have under agreements with IBM. If for any reason you cannot, despite using your best efforts, provide the two (2) weeks' written notice prior to accepting any such position, you agree that you will provide two (2) weeks' written notice prior to commencing that new position. You acknowledge and agree that a two (2) week written notice period is appropriate and necessary to permit IBM to determine whether, in its view, your proposed new position could lead to a violation of this Agreement, and you agree that you will provide IBM with such information as IBM may request to allow IBM to complete its assessment (except that you need not provide any information that would constitute confidential or trade secret information of any entity other than the Company). During the notice period required by this Paragraph, IBM may choose, in its sole discretion, to limit your duties in your position with IBM and to restrict your access to IBM's premises, systems, products, information, and employees. IBM is committed to protect its trade secrets and other confidential and proprietary information, and will take all necessary and appropriate steps to do so. You agree to cooperate with IBM in good faith to ensure that its trade secrets and other confidential and proprietary information are not disclosed, either intentionally or inadvertently.

11. No Oral Modification.

This Agreement may not be changed orally, but may be changed only in a writing signed by the Employee and a duly authorized representative of IBM.

12. Entire Agreement.

Although this Agreement sets forth the entire understanding between the

Employee and IBM concerning the restrictive covenants herein, this Agreement does not impair, diminish, restrict or waive any other restrictive covenant, nondisclosure obligation or confidentiality obligation of the Employee to the Company under any other agreement, policy, plan or program of the Company. Nothing herein affects your rights, immunities or obligations under any federal, state or local law, including under the Defend Trade Secrets Act of 2016, as described in the Company's Business Conduct Guidelines, or prohibits you from reporting possible violations of law or regulation to a government agency, as protected by law. The Employee and IBM represent that, in executing this Agreement, the Employee and IBM have not relied upon any representations or statements made, other than those set forth herein, with regard to the subject matter, basis or effect of this Agreement.

13. Governing Law and Choice of Forum.

This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York, without regard to its or any other jurisdiction's conflict of law rules. The parties agree that any action or proceeding with respect to this Agreement shall be brought exclusively in the state and federal courts sitting in New York County or Westchester County, New York. The parties agree to the personal jurisdiction thereof, and irrevocably waive any objection to the venue of such action, including any objection that the action has been brought in an inconvenient forum. Notwithstanding this Paragraph, if you reside in Massachusetts, and have resided for at least 30 (thirty) days immediately preceding, at the time of the termination of your employment with IBM, any action or proceeding with respect to this Agreement may be brought in the county where you reside.

INTERNATIONAL BUSINESS MACHINES CORPORATION

______________________________ ______________________________

Nickle LaMoreaux
Senior Vice President & Chief Human Resources Officer

__________ ______________

TalentID Date

Report of Financials
International Business Machines Corporation and Subsidiary Companies

OVERVIEW

The financial section of the International Business Machines Corporation (IBM or the company) 2022 Annual Report includes the Management Discussion, the Consolidated Financial Statements and the Notes to Consolidated Financial Statements. This Overview is designed to provide the reader with some perspective regarding the information contained in the financial section.

Organization of Information

- The Management Discussion is designed to provide readers with an overview of the business and a narrative on our financial results and certain factors that may affect our future prospects from the perspective of management. The “Management Discussion Snapshot” presents an overview of the key performance drivers in 2022.
- Beginning with the "Year in Review," the Management Discussion contains the results of operations for each reportable segment of the business, a discussion of our financial position and a discussion of cash flows as reflected in the Consolidated Statement of Cash Flows. Other key sections within the Management Discussion include: "Looking Forward" and "Liquidity and Capital Resources," the latter of which includes a description of management's definition and use of free cash flow.
- The Consolidated Financial Statements provide an overview of income and cash flow performance and financial position.
- The Notes follow the Consolidated Financial Statements. Among other items, the Notes contain our accounting policies, revenue information, acquisitions and divestitures, certain commitments and contingencies and retirement-related plans information.
- On November 3, 2021, we completed the separation of our managed infrastructure services unit into a new public company with the distribution of 80.1 percent of the outstanding common stock of Kyndryl Holdings, Inc. (Kyndryl) to IBM stockholders on a pro rata basis. To effect the separation, IBM stockholders received one share of Kyndryl common stock for every five shares of IBM common stock held at the close of business on October 25, 2021, the record date for the distribution. IBM retained 19.9 percent of the shares of Kyndryl common stock immediately following the separation. During 2022, we fully disposed of our retained interest in Kyndryl common stock pursuant to exchange agreements with a third-party financial institution, which were completed within twelve months of separation. Refer to note J, “Financial Assets & Liabilities,” for additional information. At December 31, 2022, we no longer held an ownership interest in Kyndryl.
- The accounting requirements for reporting the separation of Kyndryl as a discontinued operation were met when the separation was completed. Accordingly, the historical results of Kyndryl are presented as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented. Refer to note C, “Separation of Kyndryl,” for additional information.
- In the first quarter of 2022, we realigned our management structure to reflect the planned divestiture of our healthcare software assets which was completed in the second quarter of 2022. This change impacted our Software segment and Other–divested businesses category, but did not impact our Consolidated Financial Statements. Refer to note E, “Segments,” for additional information on our reportable segments. The segments presented in this Annual Report are reported on a comparable basis for all periods.
- In September 2022, the IBM Qualified Personal Pension Plan (Qualified PPP) purchased two separate nonparticipating single premium group annuity contracts from The Prudential Insurance Company of America and Metropolitan Life Insurance Company (collectively, the Insurers) and irrevocably transferred to the Insurers approximately $16 billion of the Qualified PPP’s defined benefit pension obligations and related plan assets, thereby reducing our pension obligations and assets by the same amount. The group annuity contracts were purchased using assets of the Qualified PPP and no additional funding contribution was required from IBM. The transaction resulted in no changes to the benefits to be received by the plan participants. As a result of this transaction we recognized a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022, primarily related to the accelerated recognition of accumulated actuarial losses of the Qualified PPP. Refer to note V, “Retirement-Related Benefits,” for additional information.
- The references to “adjusted for currency” or “at constant currency” in the Management Discussion do not include operational impacts that could result from fluctuations in foreign currency rates. When we refer to growth rates at constant currency or adjust such growth rates for currency, it is done so that certain financial results can be viewed without the impact of fluctuations in foreign currency exchange rates, thereby facilitating period-to-period comparisons of business performance. Financial results adjusted for currency are calculated by translating current period activity in local currency using the comparable prior-year period’s currency conversion rate. This approach is used for countries where the functional currency is the local currency. Generally, when the dollar either strengthens or weakens against other currencies, the growth at constant currency rates or adjusting for currency will be higher or lower than growth reported at actual exchange rates. Refer to “Currency Rate Fluctuations” for additional information.
- To provide useful decision-making information for management and shareholders, we define and measure hybrid cloud revenue as end-to-end cloud capabilities within hybrid cloud environments, which includes technology (software and hardware), services and solutions to enable clients to implement cloud solutions across public, private and multi-clouds. This spans across IBM’s Consulting, Software and Infrastructure segments. Examples include (but are not limited to) Red Hat Enterprise Linux (RHEL), Red Hat OpenShift, Cloud Paks, as-a-service offerings, service

engagements related to cloud deployment of technology and applications, and infrastructure used in cloud deployments.

- Within the financial statements and tables in this Annual Report, certain columns and rows may not add due to the use of rounded numbers for disclosure purposes. Percentages reported are calculated from the underlying whole-dollar numbers. Certain prior-year amounts have been reclassified to conform to the current year presentation. This is annotated where applicable.

Operating (non-GAAP) Earnings

In an effort to provide better transparency into the operational results of the business, supplementally, management separates business results into operating and non-operating categories. Operating earnings from continuing operations is a non-GAAP measure that excludes the effects of certain acquisition-related charges, intangible asset amortization, expense resulting from basis differences on equity method investments, retirement-related costs, certain impacts from the Kyndryl separation and their related tax impacts. Due to the unique, non-recurring nature of the enactment of the U.S. Tax Cuts and Jobs Act (U.S. tax reform), management characterizes the one-time provisional charge recorded in the fourth quarter of 2017 and adjustments to that charge as non-operating. Adjustments primarily include true-ups, accounting elections and any changes to regulations, laws, audit adjustments that affect the recorded one-time charge. Management characterizes direct and incremental charges incurred related to the Kyndryl separation as non-operating given their unique and non-recurring nature. These charges primarily relate to any net gains or losses on the Kyndryl common stock and the related cash-settled swap with a third-party financial institution, which are recorded in other (income) and expense in the Consolidated Income Statement. For acquisitions, operating (non-GAAP) earnings exclude the amortization of purchased intangible assets and acquisition-related charges such as in-process research and development, transaction costs, applicable retention, restructuring and related expenses, tax charges related to acquisition integration and pre-closing charges, such as financing costs. These charges are excluded as they may be inconsistent in amount and timing from period to period and are significantly impacted by the size, type and frequency of our acquisitions. All other spending for acquired companies is included in both earnings from continuing operations and in operating (non-GAAP) earnings. For retirement-related costs, management characterizes certain items as operating and others as non-operating, consistent with GAAP. We include defined benefit plan and nonpension postretirement benefit plan service costs, multi-employer plan costs and the cost of defined contribution plans in operating earnings. Non-operating retirement-related costs include defined benefit plan and nonpension postretirement benefit plan amortization of prior service costs, interest cost, expected return on plan assets, amortized actuarial gains/losses, the impacts of any plan curtailments/settlements including the one-time, non-cash, pre-tax settlement charge of $5.9 billion ($4.4 billion, net of tax) in the third quarter of 2022 and pension insolvency costs and other costs. Non-operating retirement-related costs are primarily related to changes in pension plan assets and liabilities which are tied to financial market performance, and we consider these costs to be outside of the operational performance of the business.

Overall, management believes that supplementally providing investors with a view of operating earnings as described above provides increased transparency and clarity into both the operational results of the business and the performance of our pension plans; improves visibility to management decisions and their impacts on operational performance; enables better comparison to peer companies; and allows us to provide a long-term strategic view of the business going forward. In addition, these non-GAAP measures provide a perspective consistent with areas of interest we routinely receive from investors and analysts. Our reportable segment financial results reflect pre-tax operating earnings from continuing operations, consistent with our management and measurement system.

FORWARD-LOOKING AND CAUTIONARY STATEMENTS

Certain statements contained in this Annual Report may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Any forward-looking statement in this Annual Report speaks only as of the date on which it is made; IBM assumes no obligation to update or revise any such statements except as required by law. Forward-looking statements are based on IBM's current assumptions regarding future business and financial performance; these statements, by their nature, address matters that are uncertain to different degrees. Forward-looking statements involve a number of risks, uncertainties and other factors that could cause actual results to be materially different, as discussed more fully elsewhere in this Annual Report and in the company's filings with the Securities and Exchange Commission (SEC), including IBM's 2022 Form 10-K filed on February 28, 2023.

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MANAGEMENT DISCUSSION SNAPSHOT

($ and shares in millions except per share amounts)

For year ended December 31:	2022 *	2021	Yr.-to-Yr. Percent/Margin Change
Revenue	$ 60,530	$ 57,350	5.5 %**
Gross profit margin	54.0 %	54.9 %	(0.9)pts.
Total expense and other (income)	$ 31,531	$ 26,649	18.3 %
Income from continuing operations before income taxes	$ 1,156	$ 4,837	(76.1)%
Provision for/(benefit from) income taxes from continuing operations	$ (626)	$ 124	NM
Income from continuing operations	$ 1,783	$ 4,712	(62.2)%
Income from continuing operations margin	2.9 %	8.2 %	(5.3)pts.
Income/(loss) from discontinued operations, net of tax	$ (143)	$ 1,030	NM
Net income	$ 1,639	$ 5,743	(71.5)%
Earnings per share from continuing operations–assuming dilution	$ 1.95	$ 5.21	(62.6)%
Consolidated earnings per share–assuming dilution	$ 1.80	$ 6.35	(71.7)%
Weighted-average shares outstanding–assuming dilution	912.3	904.6	0.8 %
Assets[È]	$127,243	$132,001	(3.6)%
Liabilities[È]	$105,222	$113,005	(6.9)%
Equity[È]	$ 22,021	$ 18,996	15.9 %

* Includes a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) resulting in an impact of ($4.84) to diluted earnings per share from continuing operations and an impact of ($4.83) to consolidated diluted earnings per share. See note V, “Retirement-Related Benefits,” for additional information.

** 11.6 percent adjusted for currency.

È At December 31.

NM–Not meaningful

The following table provides the company’s operating (non-GAAP) earnings for 2022 and 2021. See page 29 for additional information.

($ in millions except per share amounts)

For year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change
Net income as reported	$1,639 *	$5,743	(71.5)%
Income/(loss) from discontinued operations, net of tax	(143)	1,030	NM
Income from continuing operations	$1,783 *	$4,712	(62.2)%
Non-operating adjustments (net of tax)			
Acquisition-related charges	1,329	1,424	(6.7)
Non-operating retirement-related costs/(income)	4,933 *	1,031	NM
U.S. tax reform impacts	(70)	89	NM
Kyndryl-related impacts	351	(81)	NM
Operating (non-GAAP) earnings	$8,326	$7,174	16.0 %
Diluted operating (non-GAAP) earnings per share	$ 9.13	$ 7.93	15.1 %

* Includes a one-time, non-cash pension settlement charge of $4.4 billion net of tax.

NM–Not meaningful

Macroeconomic Environment

Our business profile positions us well in challenging times. Our diversification across geographies, industries, clients and business mix provides some stability in revenue, profit and cash generation.

Throughout 2022, we experienced escalating labor and component costs and a strong U.S. dollar. While those dynamics have put pressure on our margin profile, we are seeing progress in the actions we have taken to mitigate the impacts of these higher costs. Consulting, which makes up well over half of IBM’s workforce, is most impacted by the labor cost inflation. We have begun to see improved utilization and priced margin improvements year over year, and our acquisitions have become more accretive, all of which will benefit our margin profile going forward. Our Consulting pre-tax margin of 8.8 percent increased 0.7 points in 2022 versus the prior year and improved 3.2 points in the second half of 2022 compared to the first half reflecting the benefit of these actions. Additionally, across all of our product-based businesses, we have executed price increases above our historical level of increases to be more reflective of the labor and component costs we are incurring due to the inflationary environment. This includes price increases in our maintenance and support agreements for our hardware and software portfolios. Additionally, despite the many global supply chain disruptions throughout 2022, our supply chain has demonstrated resiliency and the ability to proactively respond to potential disruptions in order to meet our clients’ needs. The strengthening of the U.S. dollar impacted our reported revenue and gross profit dollars in 2022. We execute hedging programs which defer but do not eliminate the impact of currency. The gains from these hedging programs are reflected primarily in other income and expense. With the rate and magnitude of movements, and because we do not hedge all currencies, this did have a currency impact to our overall profit and cash flows in 2022. See “Currency Rate Fluctuations,” for additional information.

The geopolitical situation in Eastern Europe intensified in February 2022, with Russia’s invasion of Ukraine. The safety and security of our employees and their families in the impacted regions has been our primary focus. The sanctions placed on numerous Russian entities, specific Russian-controlled entities, as well as Belarus and other measures that have been and continue to be imposed as a result of the war have increased the level of economic and political uncertainty. In the second quarter of 2022, we made the decision to carry out an orderly wind-down of our Russian operations. As such, we assessed certain accounting-related matters that generally require consideration of current information reasonably available to us and forecasted financial data in the context of unknown future impacts to IBM that resulted in certain immaterial asset and restructuring charges in 2022. These charges, together with the year-to-year lost business due to the wind-down, impacted our pre-tax income by approximately $230 million for the year ended December 31, 2022. The long-term impacts of the Russian war in Ukraine remain uncertain; however, we do not expect a significant impact on the company’s future results of operations or financial position. Historically, Russia, Ukraine and Belarus made up less than one percent of the company’s full-year revenue. While the revenue impact is not material to total consolidated IBM revenue, the business in Russia has historically been high margin and therefore, is a more significant headwind to our profit and cash flows.

Financial Performance Summary
In 2022, we reported $60.5 billion in revenue, income from continuing operations of $1.8 billion, including a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax), and operating (non-GAAP) earnings of $8.3 billion, which excludes the impact of the settlement charge. The pension settlement charge was the result of the transfer to Insurers of a portion of our U.S. benefit pension obligations, an action we took to further reduce the risk profile of our retirement-related plans. Diluted earnings per share from continuing operations was $1.95 as reported, including an impact of $4.84 from the pension settlement charge, and diluted earnings per share was $9.13 on an operating (non-GAAP) basis. On a consolidated basis, we generated $10.4 billion in cash from operations and $9.3 billion in free cash flow and returned $5.9 billion to shareholders in dividends. We are pleased with the fundamentals of our business and the progress we have made in executing our strategy. Our 2022 performance demonstrates that we are now a higher-growth, higher-value company with the ability to generate strong cash from operations and a growing free cash flow.

Total revenue grew 5.5 percent as reported and 12 percent adjusted for currency compared to the prior year, including approximately 4 points from incremental sales to Kyndryl. Over 70 percent of current-year revenue was in our growth areas of Software and Consulting and approximately half of our revenue is recurring. Software revenue increased 6.9 percent as reported and 12 percent adjusted for currency, including approximately 6 points of growth from incremental sales to Kyndryl. There was continued momentum in our recurring revenue stream in both Hybrid Platform & Solutions and Transaction Processing. Hybrid Platform & Solutions grew 4.9 percent as reported and 9 percent adjusted for currency, led by strong double-digit revenue growth in Red Hat. Transaction Processing increased 12.2 percent as reported and 19 percent adjusted for currency, including approximately 19 points of growth from incremental sales to Kyndryl. Consulting revenue increased 7.1 percent as reported and 15 percent adjusted for currency as we help clients with their digital transformations. Infrastructure revenue increased 7.8 percent year to year as reported and 14 percent adjusted for currency, reflecting strong double-digit growth in Hybrid Infrastructure driven by our z16 program, which launched in the second quarter of 2022. The Infrastructure revenue performance also includes approximately 6 points of growth from incremental sales to Kyndryl. Across the segments, total hybrid cloud revenue of $22.4 billion in 2022 grew 11 percent as reported and 17 percent adjusted for currency, and represents 37 percent of IBM’s revenue.

From a geographic perspective, Americas revenue grew 9.7 percent year to year as reported (10 percent adjusted for currency). Europe/Middle East/Africa (EMEA) increased 2.9 percent (14 percent adjusted for currency). Asia Pacific declined 0.7 percent as reported, but grew 11 percent adjusted for currency.

The gross margin of 54.0 percent decreased 0.9 points year to year, however, gross profit dollars increased 3.8 percent compared to the prior year. Overall, gross margin was impacted by the investments we are making to drive our hybrid cloud and artificial intelligence (AI) strategy, higher labor and component costs and the impacts of currency, while the mitigating hedging benefits and operational productivity and efficiency we have realized are primarily reflected in expense. The operating (non-GAAP) gross margin of 55.1 percent decreased 1.0 points versus the prior year.

Total expense and other (income) increased 18.3 percent in 2022 versus the prior year primarily driven by the pension settlement charge of $5.9 billion, higher spending reflecting continued investment in our offerings, technical talent and ecosystem, and year-to-year impacts related to Kyndryl retained shares, partially offset by the effects of currency and benefits from the actions taken to streamline our operations and go-to-market model. Total operating (non-GAAP) expense and other (income) decreased 3.2 percent year to year, driven primarily by the effects of currency and benefits from the actions taken to streamline our operations and go-to-market model, partially offset by higher spending to drive our hybrid cloud and AI strategy.

Pre-tax income from continuing operations of $1.2 billion decreased 76.1 percent and the pre-tax margin was 1.9 percent, a decrease of 6.5 points versus 2021. These declines were primarily driven by the $5.9 billion pension settlement charge. The continuing operations effective tax rate for 2022 was (54.2) percent compared to 2.6 percent in 2021. The current-year effective tax rate was primarily driven by the pension settlement charge. The prior-year effective tax rate was primarily driven by tax benefits related to audit settlements in multiple jurisdictions. Net income from continuing operations of $1.8 billion decreased 62.2 percent and the net income from continuing operations margin was 2.9 percent, down 5.3 points year to year. Operating (non-GAAP) pre-tax income from continuing operations of $9.8 billion increased 24.6 percent year to year and the operating (non-GAAP) pre-tax margin from continuing operations increased 2.5 points to 16.2 percent. These profit dynamics reflect our portfolio shift toward higher value, driven by Software and Consulting. Our pre-tax profit includes the contribution from incremental sales to Kyndryl and the negative impacts of currency primarily due to the strengthening of the U.S. dollar. The operating (non-GAAP) effective tax rate for 2022 was 15.2 percent compared to 9.0 percent in 2021. The lower prior-year operating (non-GAAP) effective tax rate was primarily driven by tax benefits related to audit settlements in multiple jurisdictions. Operating (non-GAAP) income from continuing operations of $8.3 billion increased 16.0 percent and the operating (non-GAAP) income margin from continuing operations of 13.8 percent was up 1.2 points year to year.

Diluted earnings per share from continuing operations of $1.95 in 2022 decreased 62.6 percent, which included an impact of $4.84 from the pension settlement charge. Operating (non-GAAP) diluted earnings per share of $9.13 increased 15.1 percent versus 2021.

At December 31, 2022, the balance sheet remained strong with the flexibility to support and invest in the business. Cash and cash equivalents, restricted cash and marketable securities at year end were $8.8 billion, an increase of $1.3 billion from December 31, 2021. During 2022, we continued to invest in acquisitions and provide a solid and modestly growing dividend to shareholders. Total debt of $50.9 billion at December 31, 2022 decreased $0.8 billion driven by currency impacts, partially offset by net debt issuances.

Total assets decreased $4.8 billion ($1.3 billion adjusted for currency) from December 31, 2021 primarily driven by decreases in prepaid pension assets, intangible assets, deferred taxes, and prepaid expenses and other; partially offset by an increase in cash and restricted cash. Total liabilities decreased $7.8 billion ($4.3 billion adjusted for currency) from December 31, 2021 primarily driven by a decrease in retirement and postretirement benefit obligations. Total equity of $22.0 billion increased $3.0 billion from December 31, 2021 as a result of a decrease in accumulated other comprehensive losses, 2022 net income and common stock issuances, partially offset by dividends paid.

Our cash flows from operating, investing and financing activities, as reflected in the Consolidated Statement of Cash Flows, include the cash flows of discontinued operations. On a consolidated basis, cash provided by operating activities was $10.4 billion in 2022, a decrease of $2.4 billion compared to 2021, driven by financing receivables. Net cash used in investing activities of $4.2 billion decreased $1.8 billion compared to the prior year and net cash used in financing activities of $5.0 billion decreased $8.4 billion compared to 2021.

DESCRIPTION OF BUSINESS

Please refer to IBM's Annual Report on Form 10-K filed with the SEC on February 28, 2023, for Item 1A. entitled "Risk Factors."

IBM is addressing the hybrid cloud and AI opportunity with a platform-centric approach, focused on providing client value through a combination of technology and business expertise. We provide integrated solutions and products that leverage: data, information technology, deep expertise in industries and business processes, with trust and security and a broad ecosystem of partners and alliances. Our hybrid cloud platform and AI technology and services capabilities support clients' digital transformations and help them engage with their customers and employees in new ways. These solutions draw from an industry-leading portfolio of capabilities in software, consulting services and a deep incumbency in mission-critical systems, all bolstered by one of the world's leading research organizations.

IBM Strategy

IBM continues to execute its Hybrid Cloud and AI strategy, the two most transformative technologies for business today. Over the last couple of years, we have driven deep change within the company to deliver this platform-centric strategy. We have continually delivered innovation in our software and infrastructure offerings and scaled and enhanced the capabilities of our consulting practices. We have expanded our partner ecosystem, simplified our go-to-market model, and pursued strategic acquisitions and divestitures.

Our strategy aligns with the needs of our clients

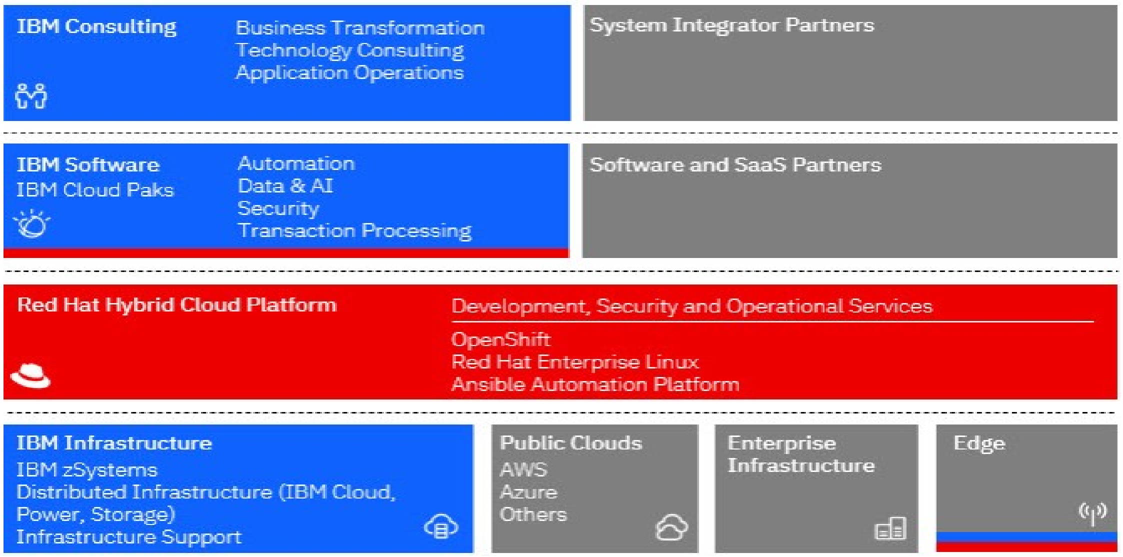
Our clients are accelerating their digital transformations as they face economic uncertainties, skill shortages, supply chain instability, security breaches and heightened sustainability goals. These market realities confirm the following convictions that have shaped our strategy:

- Technology is crucial to address business challenges: Our clients see digital capabilities fostering efficiency, revenue growth and scale in their organizations. High tech adopters gain a revenue growth premium over their peers of 7 percentage points, according to an IBM Institute for Business Value survey. International Data Corporation (IDC) forecasts that spending on digital transformation technologies will grow at nearly 17 percent in 2023 versus 2 percent global GDP growth;
- AI accelerates enterprise productivity: Businesses urgently want to optimize end-to-end processes. Most now recognize AI will be a critical technology to rapidly adopt to realize that goal. According to IDC, today 45 percent of organizations have not yet expanded AI beyond a few isolated projects, while by 2026, 75 percent of large organizations will rely on AI driven processes for digital-first operations;
- Digital transformation necessitates heterogeneous environments: Enterprises need digital workloads to be deployed across all their multiple clouds, data centers and distributed locations where their business runs. Seventy-two percent of the decision makers interviewed in a Harris Poll survey have their company workloads running across private infrastructure and public cloud;
- Open-source catalyzes innovative outcomes: Operating on a common open-source platform reduces the cost of managing that heterogeneity. It also enables enterprises to holistically accelerate developers' productivity and innovation time-to-market. Sixty-eight percent of the decision makers interviewed in a Harris Poll survey indicated they are using containers most or all of the time;
- With Red Hat OpenShift, IBM delivers the new essential platform: Over decades, IBM has delivered industry-shaping and enduring IT platforms, such as mainframe and middleware. Building on this heritage, Red Hat OpenShift is the leading open-source hybrid cloud platform to help enterprises realize their digital transformation goals.

IBM's differentiated value proposition

Our differentiated value proposition encompasses our integrated competencies across software, consulting and infrastructure, leveraging our open hybrid cloud platform. We draw upon five core capabilities to address our clients' hybrid cloud and AI needs: (1) build and modernize for the hybrid cloud environments that operate with speed, consistency and agility, (2) create AI-infused, data-driven business insights regardless of where data lives, while maintaining enterprise grade data governance, privacy and trust, (3) automate the end-to-end enterprise processes for efficacy with AI-driven decision-making, (4) secure everywhere, with consistent governance and compliance across environments, and (5) bring it together by transforming our clients' businesses and processes into sustainable best-in-class industry practices.

Our full technology stack helps us meet clients where they are in their digital transformations, and we offer the consulting expertise to help guide and implement the best solutions for that journey. Our rapidly growing ecosystem of cloud, independent software vendors (ISVs), hardware, network and services partners enhance the client experience and drive the value and innovation derived from IBM technologies. Our focus on hybrid cloud accelerates our open and collaborative approach to partnership.



Our hybrid cloud platform strategy drives sustained growth and financial performance: on average, every $1 of platform spend results in $3 to $5 of software revenue, $6 to $8 of services and $1 to $2 of enterprise infrastructure. The hybrid cloud opportunity represents over a $1 trillion market across software, consulting and infrastructure.

IBM's integrated value is amplified by ensuring our existing businesses all advance the hybrid cloud value proposition to our clients. We strategically embed the Red Hat platform with our offerings: (1) IBM Software's growing portfolio runs on Red Hat OpenShift Container Platform (OCP), (2) IBM Infrastructure solutions are optimized hybrid cloud deployments for mission-critical workloads, and (3) IBM Consulting is the leading market system integrator with hybrid cloud and Red Hat expertise to help clients transform their business and technology.

IBM Software extends the value of our hybrid cloud platform with four critical capabilities: (1) "Modernize" for agility and speed from legacy to hybrid cloud architecture, (2) "Data-driven", predicting outcomes from distributed data and applying AI to empower predictive decision-making, real-time digital intelligence and sustainable operations, (3) "Automate" at scale to make experiences and tasks more productive and impactful, and (4) "Secure" all touchpoints, all the time, employing real-time threat insights, automated detection and orchestrated response. **Red Hat**, reported in our Software segment, delivers the leading open-source hybrid cloud platform and enables clients to build, secure, operate and manage any application, anywhere, from on-premises environments to multiple clouds and the edge. One hundred percent of commercial banks, telecommunication, media and technology companies in the Fortune Global 500 rely on Red Hat. Red Hat collaborates with a broad ecosystem of partners and communities comprised of millions of developers. These capabilities allow our clients to "write once, deploy anywhere" for cloud native application development and modernization. We embed the Red Hat platform with our offerings, to advance the hybrid cloud value proposition to our clients.

IBM Consulting delivers business transformation for our clients through hybrid cloud and AI technologies. Our 160,000+ professionals together with our open ecosystem of partners help clients advance digital transformation, build open hybrid cloud architectures, orchestrate critical applications across environments, and optimize key workflows and business processes. IBM Consulting drives transformative projects across different industries with its IBM Garage method. IBM Consulting has dedicated talent in practices to support IBM technology and continues to invest in the industry's largest Red Hat practice to make hybrid cloud a foundation for innovation and business growth, enabling clients to get more value from investments. IBM Consulting has deepened its hybrid cloud consulting offerings and scaled cloud capability to 40,000+ cloud platform certifications, while accelerating the transformation journeys for its clients in 2022. IBM Consulting also captures growth by investing in practices with a wide ecosystem of partners, including AWS, Azure and major ISVs.

IBM Infrastructure solutions provide unmatched performance, security and resiliency for mission-critical, trusted, or regulated applications running in a hybrid environment. We drive customer adoption and leading DevOps experience for IBM hybrid cloud at scale, deeply integrating with Red Hat and IBM Software offerings. We delivered major breakthroughs in 2022, with next generation z16, Power10 servers and new storage offerings. Forty-five of the world's top 50 banks are running on IBM zSystems, which excel at transaction processing with integrated AI and unmatched throughput, availability and advanced security for the era of quantum computing. Power, Storage, and IBM Cloud help to accelerate enterprise digital transformation with secure, scalable and resilient solutions built for hybrid cloud agility and application modernization. Infrastructure Support provides lifecycle services and support to optimize and maintain hybrid cloud environments, with visibility and automated diagnosis and remediation.

IBM Research continues to help define the evolution of computing. In 2022, our focused research agenda provided a pipeline of innovations, including automated container-driven environments, AI models, security management, sustainability and many others. Our published Technology Atlas illustrates strategic goals and detailed plans for the next three years of research. We continued to develop technology to harness the potential of the paradigm-shifting inflection point in AI represented by foundation models. We outlined a pioneering vision for quantum-centric supercomputing and announced new breakthrough advancements in quantum software and hardware, including the 433 qubit Osprey processor. We continue to monetize our unparalleled IP and to leverage our world-class skills in semiconductors to innovate in hardware and collaborate with industry-leading partners.

In addition to our organic investments in R&D, **our inorganic investments** foster our strategy by adding critical competencies to our software and consulting businesses. Our acquisitions of Databand.ai, Randori and Envizi expanded our growing portfolio of AI-driven software, bringing capabilities to help our clients gain better observability into their data, protect against cybersecurity breaches across their various exposure points and manage their environmental performance. We expanded our consulting expertise in data, AI, digital, and cloud through the acquisitions of Sentaca, Neudesic, Dialexa and Octo. These investments also facilitate growth by deepening our industry expertise and consulting capabilities with government and telco clients. In 2022, IBM successfully completed eight acquisitions in total.

Expanding client engagements and our ecosystem

During 2022, we helped clients harness the power of hybrid cloud and AI technologies to address current challenges and opportunities. We invested in experiential selling, client engineering, customer success management, expert lab services and deep technical expertise to show clients the value of technology as a fundamental source of competitive advantage. We engaged clients in digital transformations using automation and security and other solutions to increase growth, productivity, resilience and responsiveness. We introduced a product-led growth initiative under our new global "Let's create" campaign, illustrating how technology can be brought to life to solve the biggest challenges in business.

When IBM and our partners work together to solve clients' most complex business challenges, everyone wins. We opened access to software technology on the AWS marketplace to provide flexibility through an open ecosystem. IBM customers can purchase 30 IBM products through the Azure Marketplace and deploy these IBM technologies on Azure. We gave partners access to the same training, and deep technical and product expertise as IBMers to foster a consistent client experience. We deepened our partnership with cloud hyperscalers, large independent software vendors and global system integrators, making it easier for partners and clients to embrace hybrid cloud. Our commitment to the IBM ecosystem gives partners and clients the flexibility and market access they need to run workloads seamlessly in any environment.

In 2022, IBM's execution and innovation of our hybrid cloud and AI strategy improved the trajectory of our business. We see the core convictions that have shaped our strategy continue to resonate in the market. As we enter 2023, we will continue to advance our R&D innovation, inorganic investment and fast-growing ecosystem, positioning IBM as a leader in a world where hybrid cloud and AI are central to enterprise success.

Business Segments and Capabilities

IBM operates in more than 175 countries around the world. Our platform-centric hybrid cloud and AI strategy is executed through our operations and consists of four business segments: Software, Consulting, Infrastructure and Financing.

Software

Software provides software solutions that address client needs for a hybrid cloud platform, data and AI, automation, and security on their journey to hybrid cloud. It includes all software, except operating system software reported in the Infrastructure segment.

Software comprises two business areas – Hybrid Platform & Solutions and Transaction Processing, which have the following capabilities:

Hybrid Platform & Solutions: includes software, infused with AI, to help clients operate, manage and optimize their IT resources and business processes within hybrid, multi-cloud environments. It includes the following:

Red Hat: provides enterprise open-source solutions, for hybrid, multi-cloud environments, which includes Red Hat Enterprise Linux (RHEL), OpenShift, our hybrid cloud platform, as well as Ansible.

Automation: optimizes processes from business workflows to IT operations with AI-powered automation. Automation includes software for business automation, IT automation, integration and application runtimes.

Data & AI: accelerates data-driven agendas by infusing AI throughout the enterprise, empowering intelligent decision making. The portfolio includes capabilities that simplify data consumption through data fabric with data management, optimize lifecycle management, and make better predictions through business analytics. Data & AI capabilities facilitate sustainable, resilient businesses and enable intelligent management of enterprise assets and supply chains with environmental intelligence and the world's most accurate weather forecast data.

Security: creates a risk-aware, secure business by gaining real-time threat insights, orchestrating actions and automating responses across all touchpoints, in line with a zero-trust security strategy. Security includes software and services for threat management, data security, and identity and access management.

Transaction Processing: the software that supports clients' mission-critical, on-premise workloads in industries such as banking, airlines and retail. This includes transaction processing software such as Customer Information Control System and storage software, as well as the analytics and integration software running on IBM operating systems such as DB2 and WebSphere running on z/OS.

Consulting

Consulting provides deep industry expertise and market-leading capabilities in business transformation and technology implementation. Consulting designs, builds and operates technology and business processes based on open, hybrid cloud architectures with IBM technology and ecosystem partner technologies. Consulting uses its IBM Garage method to convene experts to co-create solutions with clients to accelerate their digital transformations through AI and automation.

Consulting comprises three business areas – Business Transformation, Technology Consulting and Application Operations, which have the following capabilities:

Business Transformation: provides strategy, process design, system implementation and operations services to improve and transform key business processes. These services deploy AI and automation in business processes to exploit the value of data and include an ecosystem of partners alongside IBM technology, including strategic partnerships with Adobe, Oracle, Salesforce and SAP, among others.

Technology Consulting: helps clients architect and implement solutions across cloud platforms, including Amazon, Microsoft and IBM, and strategies to transform the enterprise experience and enable innovation, including application modernization for hybrid cloud with Red Hat OpenShift.

Application Operations: focuses on application and cloud platform services required to operationalize and run cloud platforms. It facilitates clients' efforts to manage, optimize and orchestrate application and data workloads across platforms and environments through both custom applications and ISV packages.

Infrastructure

Infrastructure provides trusted, agile and secure solutions for hybrid cloud and is the foundation of the hybrid cloud stack. Infrastructure is optimized for infusing AI into mission-critical transactions and tightly integrated with IBM Software including Red Hat for accelerated hybrid cloud benefits.

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Infrastructure comprises two business areas – Hybrid Infrastructure and Infrastructure Support, which have the following capabilities:

Hybrid Infrastructure: provides clients with innovative infrastructure platforms to help meet the new requirements of hybrid multi-cloud and enterprise AI workloads leveraging flexible and as-a-service consumption models. Hybrid Infrastructure includes zSystems and Distributed Infrastructure.

zSystems: the premier transaction processing platform with leading security, resilience and scale, highly optimized for mission-critical, high-volume transaction workloads. It includes zSystems and LinuxONE, with a range of high-performance systems designed to address computing capacity, security and performance needs of businesses. zSystems operating system software environments include z/OS, a security-rich, high-performance enterprise operating system, as well as Linux and other platforms that are enabled with enterprise AI and are hybrid cloud ready.

Distributed Infrastructure: the portfolio is uniquely positioned for hybrid cloud, meeting client demands for scalability, security and capacity. Distributed Infrastructure includes Power, Storage and IBM Cloud Infrastructure-as-a-Service (IaaS). Power consists of high-performance servers, designed and engineered for big data and AI-enabled workloads and are optimized for hybrid cloud and Linux. The Storage portfolio consists of a broad range of storage hardware and software-defined offerings, including Z-attach and distributed flash, tape solutions, software-defined storage controllers, data protection software and network-attach storage. IBM Cloud IaaS is built on enterprise-grade hardware with an open architecture and is specifically designed for regulated industries with leading security and compliance capabilities. IBM Cloud IaaS offers flexible computing options across x86, Power, Storage and zSystems as a service to meet client workload needs.

Hybrid Infrastructure also includes remanufacturing and remarketing of used equipment with a focus on sustainable recovery services.

Infrastructure Support: works across hybrid cloud environments providing a uniquely integrated services experience for clients. Infrastructure Support delivers comprehensive, proactive and AI-enabled services to maintain and improve the availability and value of clients' IT infrastructure (hardware and software) both on-premises and in the cloud. These offerings include maintenance for IBM products and other technology platforms, as well as open-source and cross-vendor software and solution support.

Financing

Financing facilitates IBM clients' acquisition of information technology systems, software and services through its financing solutions. The financing arrangements are predominantly for products or services that are critical to the end users' business operations and support IBM's hybrid cloud and AI strategy. Financing conducts a comprehensive credit evaluation of its clients prior to extending financing. As a captive financier, Financing has the benefit of both deep knowledge of its client base and a clear insight into the products and services financed. These factors allow the business to effectively manage two of the primary risks associated with financing, credit and residual value, while generating strong returns on equity.

Financing comprises the following two business areas – Client Financing and Commercial Financing:

Client Financing: lease, installment payment plan and loan financing to end-user clients for terms up to seven years, and internal loan financing in support of IBM IaaS service arrangements. Assets financed are primarily new and used IT hardware, software and services where we have expertise.

Commercial Financing: short-term working capital financing to distributors and resellers primarily of IBM products. The company has an existing agreement with a third-party investor to sell IBM short-term commercial financing receivables on a revolving basis.

Human Capital

Employees and Related Workforce

(In thousands)

For the year ended December 31:	2022
IBM/wholly owned subsidiaries	288.3
Less-than-wholly owned subsidiaries	8.2
Complementary*	14.8

* The complementary workforce is an approximation of equivalent full-time employees hired under temporary, part-time and limited-term employment arrangements to meet specific business needs in a flexible and cost-effective manner.

As a globally integrated enterprise, IBM operates in more than 175 countries and is continuing to shift our business to the higher value segments of enterprise IT. Our highly skilled global workforce is reflective of the work we do for clients in support of their digital transformations and mission-critical operations through our focus on hybrid cloud and AI. Our employees are among the world’s leading experts in hybrid cloud, AI, quantum computing, cybersecurity and industry-specific solutions. We believe our success depends on the caliber of our talent and the engagement and inclusion of IBMers in the workplace.

Talent and Culture

We attract, develop, engage and retain talent in a dynamic and competitive environment. IBM provides a compelling employee value proposition, offering professionals competitive compensation and attractive career opportunities in the development and delivery of innovative technologies for clients whose businesses the world relies on. Our value proposition and talent strategy help to retain talent. During 2022, voluntary attrition decreased consistent with the overall labor market.

We are continuously transforming and developing our talent, both through learning and hiring. In 2022, we added skills in consulting and key technical areas and invested in scaling our capacity in strategically important markets. We are expanding our ability to deliver best-in-class customer experiences by investing in talent to facilitate garages, client engineering centers and customer success management. We continue to invest in upskilling and reskilling our workforce. Our digital learning and career platforms are examples of this commitment to provide employees access to the resources needed to build strategic skills and grow their careers. These digital platforms utilize Watson AI to generate personalized recommendations for employees and include peer-to-peer collaboration and internal social sharing functionality. Helping employees learn and apply new skills is important for retention and critical to our ability to transform and evolve.

Employee engagement is an indicator of employee well-being and their dedication to the company's mission, purpose and values. We conduct an annual engagement survey to assess the health of the company's culture and employee sentiment. More than 185,000 employees globally participated in the 2022 engagement survey, providing actionable data-driven insights to managers and leaders around factors such as workplace experience, inclusion, pride and propensity to recommend IBM as an employer. More than eight out of ten employees that participated in the survey responded that they felt engaged at work, a testament to our industry-leading talent practices.

Diversity and Inclusion

IBM has a long, proud history as a pioneer in diversity and inclusion. We work to ensure employees from diverse backgrounds are engaged, can be their authentic selves, build skills and grow their careers. Nearly nine out of ten employees feel empowered to be their authentic selves at work. We believe a diverse and inclusive workplace leads to greater innovation, agility, performance and engagement, enabling both business growth and societal impact. Our focus on creating a diverse and inclusive workplace has led to increased levels of inclusion for women, Black and Hispanic employees. Women make up more than one-third of our workforce. In addition, executive representation of women globally, and Hispanic and Black executives in the U.S. improved by 0.3 points, 0.4 points and 0.6 points, respectively, in 2022. Our executive compensation program metrics include a diversity modifier to reinforce our focus and continued accountability for improving the diverse representation of our workforce. Globally, our executives are measured on the improvement of diversity and inclusion for women. In the U.S., executives are also measured on improvement of diversity and inclusion for U.S. underrepresented minorities.

We believe in pay equity whereby employees should be compensated fairly for their work and performance, regardless of their gender, race or other personal characteristics. We have a long-standing practice of maintaining pay equity, which has been part of our global policy since 1935 and we remain firmly committed to equal pay for equal work. To this end, we conduct statistical pay equity assessments across all countries with IBM employees. We also empower employees to understand their pay by providing comprehensive compensation education. Employees can also directly access information about their pay, including a comparison against their market pay range, through the HR system or their direct managers.

Health, Safety and Well-Being

IBM has a long-standing commitment to the health, safety and well-being of our employees. This commitment is embodied in our health and safety policy which is implemented through our externally certified Health and Safety Management System (HSMS). Objectives of our HSMS include providing a safe and healthy workplace, preventing work-related injuries and illnesses, enhancing worker health and productivity and providing resources to fulfill these commitments.

We feel that our employees perform best at work, at home and in the communities where they live and work when their well-being is supported. We believe in not taking a one-size-fits-all approach when it comes to health, safety and well-being. We strive to provide programs that are culturally relevant and inclusive to address the needs of a diverse employee population. We have taken our experience from the pandemic and created an environment to support our employees' needs on flexibility. Access to well-being services and resources are offered through onsite activities, partnerships with external vendors, amongst other methods of delivery.

We offer a wide range of evidence-based health promotion services and programs, covering all aspects of employee well-being: physical, mental and financial health. In 2022, programs were focused on cardiovascular, musculoskeletal and mental health, addressing some of the medical issues that were exacerbated during the COVID-19 pandemic. All IBMers worldwide have confidential, 24/7 access to critical mental health support through employee assistance programs and supplemental resources. Other programs include additional paid time off for working parents and caregivers experiencing life events, training for employees on resilience, as well as financial counseling offerings. Employees are supported with around-the-clock access to IBM's world-class Health and Safety team, education, timely updates and forums to ask questions and raise concerns.

YEAR IN REVIEW

Results of Continuing Operations

As discussed in the "Organization of Information" section, with the completion of the separation on November 3, 2021, the results of Kyndryl are reported as discontinued operations and as such, have been excluded from continuing operations and segment results for all periods presented.

Segment Details

In the first quarter of 2022, we realigned our management structure to reflect the planned divestiture of our healthcare software assets which was completed in the second quarter of 2022. This change impacted our Software segment and Other–divested businesses category, but did not impact our Consolidated Financial Statements. Prior-year results have been recast to reflect this change. The table below presents each reportable segment's revenue and gross margin results, followed by an analysis of the 2022 versus 2021 reportable segment results.

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent/ Margin Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Revenue				
Software	$25,037	$23,426 *	6.9 %	11.9 %
Gross margin	79.6 %	79.6 %*	0.0 pts.	
Consulting	19,107	17,844	7.1 %	14.9 %
Gross margin	25.5 %	28.0 %	(2.5)pts.	
Infrastructure	15,288	14,188	7.8 %	13.5 %
Gross margin	52.8 %	55.3 %	(2.6)pts.	
Financing	645	774	(16.6)%	(13.0)%
Gross margin	38.3 %	31.7 %	6.6 pts.	
Other	453	1,119 *	(59.6)%	(56.2)%
Gross margin	(95.3)%	(22.3)%*	(73.0)pts.	
Total revenue	$60,530	$57,350	5.5 %	11.6 %
Total gross profit	$32,687	$31,486	3.8 %	
Total gross margin	54.0 %	54.9 %	(0.9)pts.	
Non-operating adjustments				
Amortization of acquired intangible assets	682	719	(5.1)%	
Operating (non-GAAP) gross profit	$33,370	$32,205	3.6 %	
Operating (non-GAAP) gross margin	55.1 %	56.2 %	(1.0)pts.	

* Recast to reflect segment change.

Software

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Software revenue	$25,037	$23,426 *	6.9 %	11.9 %
Hybrid Platform & Solutions	$17,866	$17,036 *	4.9 %	9.4 %
Red Hat			12.6	17.5
Automation			2.1	6.6
Data & AI			1.5	5.5
Security			2.2	7.3
Transaction Processing	7,171	6,390	12.2	18.7

* Recast to reflect segment change.

Software revenue of $25,037 million increased 6.9 percent as reported (12 percent adjusted for currency) in 2022 compared to the prior year, driven by growth in both Hybrid Platform & Solutions and Transaction Processing. This includes incremental sales to Kyndryl which contributed approximately 6 points to Software revenue growth. Software concluded 2022 with seasonally strong transactional performance in the fourth quarter and a solid and growing recurring revenue base. Within Software, hybrid cloud revenue of $9,321 million grew 11 percent as reported (16 percent adjusted for currency) year to year. Our platform-based approach to hybrid cloud and AI is resonating with clients. We have modernized and optimized our software capabilities to run on this platform across Automation, Data & AI and Security for the platform.

Hybrid Platform & Solutions revenue of $17,866 million increased 4.9 percent as reported (9 percent adjusted for currency) in 2022 compared to the prior year. Incremental sales to Kyndryl contributed approximately 1 point to revenue growth. Within Hybrid Platform & Solutions, we had revenue growth across all of our business areas. Red Hat revenue increased 12.6 percent as reported (17 percent adjusted for currency) led by double-digit growth in OpenShift and Ansible, both of which gained market share in 2022. OpenShift had $1.0 billion in annual recurring revenue exiting 2022. Revenue in RHEL also had strong growth and gained share in 2022 compared to the prior year. Red Hat continues to be a leader in open-source technology and its hybrid cloud offerings continue to transform enterprise IT. Automation revenue increased 2.1 percent as reported (7 percent adjusted for currency), led by Integration and AIOps and Management as clients look to automate business workflows and improve applications. Data & AI revenue increased 1.5 percent as reported (6 percent adjusted for currency), reflecting demand in areas such as Data Management, Data Fabric, Information Exchange, and Asset and Supply Chain Management. In addition, our offerings such as Envizi and Environmental Intelligence Suite are resonating with clients as they continue to prioritize sustainability efforts. Security revenue increased 2.2 percent as reported (7 percent adjusted for currency), led by strength across our offerings such as Threat Management, Data Security and Identity. We continue to help clients detect, prevent and respond to security incidents as they adopt zero-trust security strategies.

Across Hybrid Platform & Solutions, our annual recurring revenue (ARR) was $13.3 billion exiting 2022. ARR is a key performance metric management uses to assess the health and growth trajectory of our Hybrid Platform & Solutions business within the Software segment. ARR is calculated by estimating the current quarter's recurring, committed value for certain types of active contracts as of the period-end date and then multiplying that value by four. This value is based on each arrangement's contract value and start date, mitigating fluctuations during the contract term, and includes the following consumption models: (1) software subscription agreements, including committed term licenses, (2) as-a-service arrangements such as SaaS and PaaS, (3) maintenance and support contracts, and (4) security managed services contracts. ARR should be viewed independently of revenue as this performance metric and its inputs may not represent the amount of revenue recognized in the period and therefore is not intended to represent current period revenue or revenue that will be recognized in future periods. ARR is calculated at estimated constant currency.

Transaction Processing revenue of $7,171 million increased 12.2 percent as reported (19 percent adjusted for currency) in 2022 compared to the prior year. This includes incremental sales to Kyndryl which contributed approximately 19 points of revenue growth in 2022. Client demand for this mission-critical software has followed increases in zSystems installed capacity over the last two product cycles and consistently strong renewal rates during 2022 are evidence of the importance of this software in a hybrid cloud environment.

($ in millions)

For the year ended December 31:	2022	2021 *	Yr.-to-Yr. Percent/ Margin Change
Software			
Gross profit	$19,941	$18,648	6.9 %
Gross profit margin	79.6 %	79.6 %	0.0 pts.
Pre-tax income	$ 6,162	$ 4,849	27.1 %
Pre-tax margin	24.6 %	20.7 %	3.9 pts.

* Recast to reflect segment change.

The Software gross profit margin of 79.6 percent in 2022 was flat compared to the prior year. Pre-tax income of $6,162 million increased 27.1 percent compared to the prior year with a pre-tax margin expansion of 3.9 points to 24.6 percent. The improvements year to year in pre-tax income and pre-tax margin were driven primarily by the higher gross profit contribution from our strong revenue growth including the Kyndryl commercial relationship, which reflects the demand for our products, as well as portfolio mix.

Consulting

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Consulting revenue	$19,107	$17,844	7.1 %	14.9 %
Business Transformation	$ 8,834	$ 8,284	6.6 %	14.0 %
Technology Consulting	3,765	3,466	8.6	16.8
Application Operations	6,508	6,095	6.8	15.0

Consulting revenue of $19,107 million increased 7.1 percent as reported (15 percent adjusted for currency) in 2022 compared to the prior year, with strong growth across all three business areas. Clients are leveraging IBM's hybrid cloud leadership and deep industry expertise to navigate the complexity of their digital transformation journeys. Strong demand for our Consulting offerings led to signings growth of 6.9 percent as reported (14 percent adjusted for currency) in 2022. We had our best quarterly book-to-bill for 2022 in the fourth quarter and had a book-to-bill ratio of 1.1 for the year. Book-to-bill represents the ratio of IBM Consulting signings to its revenue over the same period and is a useful indicator of the demand for our business over time. Clients are partnering with IBM Consulting as they decide which applications to modernize and how to migrate these applications across hybrid, multi-cloud environments. Within Consulting, hybrid cloud revenue of $9,019 million grew 15 percent as reported (23 percent adjusted for currency) year to year with both our Red Hat practice and strategic partnerships contributing to the growth.

Business Transformation revenue of $8,834 million increased 6.6 percent as reported (14 percent adjusted for currency) compared to the prior year. We had strong demand for our Business Transformation solutions, with growth across our service line offerings such as data and client experience transformations, supply chain and finance optimizations. Our partnerships with key ISVs including SAP, Salesforce and Adobe enabled us to help clients transform their critical workloads at scale and improve the way they engage with their customers.

Technology Consulting revenue of $3,765 million increased 8.6 percent as reported (17 percent adjusted for currency), led by our cloud development and cloud modernization practices which architect and implement clients' cloud platforms and strategies. Our Red Hat engagements as well as strategic hyperscaler partnerships also contributed to the year-to-year revenue growth.

Application Operations revenue of $6,508 million increased 6.8 percent as reported (15 percent adjusted for currency). We help clients optimize their operations and reduce costs by taking over the management of applications in hybrid and multi-cloud environments. Our incumbency and understanding of clients' applications are key differentiators which helped to contribute to this growth.

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent/ Margin Change
Consulting			
Gross profit	$4,864	$4,994	(2.6)%
Gross profit margin	25.5 %	28.0 %	(2.5)pts.
Pre-tax income	$1,677	$1,449	15.7 %
Pre-tax margin	8.8 %	8.1 %	0.7 pts.

The Consulting gross profit margin decreased 2.5 points to 25.5 percent compared to the prior year. Pre-tax income of $1,677 million increased 15.7 percent compared to the prior year and the pre-tax margin increased 0.7 points to 8.8 percent. The decline in gross profit margin reflects labor cost inflation which put pressure on the margin profile in 2022, however, the gross profit margin improved 2.4 points in the second half of 2022 compared to the first half reflecting the benefit from pricing actions and productivity. The year-to-year improvement in pre-tax income and pre-tax margin reflects the benefits of productivity within our workforce, a more streamlined operating and go-to-market structure as well as our acquisitions which have become more accretive.

Consulting Signings

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Total Consulting signings	$20,485	$19,163	6.9 %	14.3 %

Signings are management's initial estimate of the value of a client's commitment under a services contract within IBM Consulting. There are no third-party standards or requirements governing the calculation of signings. The calculation used by management involves estimates and judgments to gauge the extent of a client's commitment, including the type and duration of the agreement and the presence of termination charges or wind-down costs.

Contract extensions and increases in scope are treated as signings only to the extent of the incremental new value. Total signings can vary over time due to a variety of factors including, but not limited to, the timing of signing a small number of larger contracts. Signings associated with an acquisition will be recognized on a prospective basis.

Management believes the estimated values of signings disclosed provide an indication of our forward-looking revenue. Signings are used to monitor the performance of the business and viewed as useful information for management and shareholders. The conversion of signings into revenue may vary based on the types of services and solutions, contract duration, customer decisions, and other factors, which may include, but are not limited to, the macroeconomic environment.

Infrastructure

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Infrastructure revenue	$15,288	$14,188	7.8 %	13.5 %
Hybrid Infrastructure	$ 9,451	$ 8,167	15.7 %	21.0 %
zSystems			30.6	36.0
Distributed Infrastructure			6.6	11.9
Infrastructure Support	5,837	6,021	(3.1)	3.3

Infrastructure revenue of $15,288 million increased 7.8 percent as reported (14 percent adjusted for currency) year to year driven by strong double-digit growth in Hybrid Infrastructure. Incremental sales to Kyndryl contributed approximately 6 points to the Infrastructure revenue growth. Within Infrastructure, hybrid cloud revenue of $3,895 million increased 7 percent as reported (11 percent adjusted for currency) year to year, driven by the product cycle dynamics of z16 and Storage in the current year.

Hybrid Infrastructure revenue of $9,451 million increased 15.7 percent as reported (21 percent adjusted for currency). Incremental sales to Kyndryl contributed approximately 6 points to the revenue growth. Within Hybrid Infrastructure, zSystems revenue grew 30.6 percent as reported (36 percent adjusted for currency) on a year-to-year basis, reflecting strong execution around our new z16 program. The z16 capabilities include cyber-resilient security, embedded AI at scale and cloud-native development for hybrid cloud. Clients are leveraging cyber-resiliency to comply with business regulations and proactively avoid outages in their operations. The new on-chip AI accelerator has been helping mitigate and detect fraud in credit card application processing. The z16 is also the industry's first quantum-safe system, delivering 25 billion encrypted transactions per day for clients. In the third quarter of 2022, we also introduced our newest LinuxONE server, a highly scalable Linux and Kubernetes-based platform with capabilities to reduce clients' energy consumption. IBM zSystems remains an enduring platform, now playing an important role in a hybrid cloud environment. Distributed Infrastructure revenue increased 6.6 percent as reported (12 percent adjusted for currency). This performance was led by strength in Power Systems with the extension of our Power10 innovation throughout the Power Systems product lines. The Power10 server platform is designed to deliver flexible and secure infrastructure for hybrid cloud environments. In addition, recent innovation within our Storage product lines included a refresh to our flash storage solutions which contributed to Storage performance in 2022.

Infrastructure Support revenue of $5,837 million decreased 3.1 percent as reported, but grew 3 percent adjusted for currency year to year. This includes incremental sales to Kyndryl which contributed approximately 6 points of revenue growth in 2022. Infrastructure Support performance in 2022 was impacted by client adoption of new hardware with the launch of the z16 program. In the first year of a new hardware cycle, product is under standard warranty which results in a cyclical decline in maintenance revenue.

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent/ Margin Change
Infrastructure			
Gross profit	$8,066	$7,848	2.8 %
Gross profit margin	52.8 %	55.3 %	(2.6)pts.
Pre-tax income	$2,262	$2,025	11.7 %
Pre-tax margin	14.8 %	14.3 %	0.5 pts.

The Infrastructure gross profit margin decreased 2.6 points to 52.8 percent in 2022 compared to the prior year driven by Infrastructure Support. The gross profit margin decline in Infrastructure Support was primarily driven by portfolio mix. Hybrid Infrastructure profit margin reflected declines in zSystems and Distributed Infrastructure profit margins in line with product cycle dynamics, offset by product mix primarily toward zSystems. Pre-tax income of $2,262 million increased 11.7 percent, primarily driven by the revenue growth from the z16 product cycle and an increase in IP income year to year from a joint development and licensing agreement signed in the fourth quarter of 2022. The pre-tax margin increased 0.5 points year to year to 14.8 percent, primarily driven by portfolio mix.

Financing

See pages 40 through 42 for a discussion of Financing's segment results.

Geographic Revenue

In addition to the revenue presentation by reportable segment, we also measure revenue performance on a geographic basis.

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Total revenue	$60,530	$57,350	5.5 %	11.6 %
Americas	$31,057	$28,299	9.7 %	10.2 %
Europe/Middle East/Africa	17,950	17,447	2.9	13.9
Asia Pacific	11,522	11,604	(0.7)	11.4

Total revenue of $60,530 million in 2022 increased 5.5 percent year to year as reported and 12 percent adjusted for currency, which includes approximately 4 points of revenue growth from incremental sales to Kyndryl.

Americas revenue increased 9.7 percent as reported and 10 percent adjusted for currency, which includes approximately 3 points of revenue growth from incremental sales to Kyndryl. Within North America, the U.S. increased 9.2 percent and Canada increased 3.3 percent as reported and 7 percent adjusted for currency. Latin America increased 18.4 percent as reported and 19 percent adjusted for currency. Within Latin America, Brazil revenue increased 17.6 percent as reported and 14 percent adjusted for currency.

EMEA revenue increased 2.9 percent as reported and 14 percent adjusted for currency, which includes approximately 5 points of revenue growth from incremental sales to Kyndryl. France, the UK and Italy increased 9.6 percent, 5.3 percent and 3.2 percent, respectively, as reported, and increased 22 percent, 17 percent and 15 percent, respectively, adjusted for currency. Germany decreased 4.7 percent as reported, but grew 6 percent adjusted for currency. The orderly wind-down of our Russian operations in the second quarter of 2022 negatively impacted the revenue growth rate in EMEA by 1.7 points as reported and 2 points adjusted for currency.

Asia Pacific revenue decreased 0.7 percent as reported, but grew 11 percent adjusted for currency, which includes approximately 5 points of revenue growth from incremental sales to Kyndryl. Japan revenue decreased 3.5 percent as reported, but grew 15 percent adjusted for currency. India increased 20.3 percent as reported and 28 percent adjusted for currency. Australia increased 7.3 percent as reported and 16 percent adjusted for currency. China decreased 22.7 percent as reported and 20 percent adjusted for currency, driven primarily by large transactions in the financial sector in the prior year related to our zSystems products.

Total Expense and Other (Income)

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent/ Margin Change
Total expense and other (income)	$31,531 *	$26,649	18.3 %
Non-operating adjustments			
Amortization of acquired intangible assets	(1,065)	(1,119)	(4.8)
Acquisition-related charges	(18)	(43)	(58.6)
Non-operating retirement-related (costs)/income	(6,548)*	(1,282)	NM
Kyndryl-related impacts	(351)	118	NM
Operating (non-GAAP) expense and other (income)	$23,549	$24,324	(3.2)%
Total expense-to-revenue ratio	52.1 %	46.5 %	5.6 pts.
Operating (non-GAAP) expense-to-revenue ratio	38.9 %	42.4 %	(3.5)pts.

* Includes a one-time, non-cash pension settlement charge of $5.9 billion. See note V, “Retirement-Related Benefits,” for additional information.

NM–Not meaningful

Our expense dynamics in 2022 reflect our continued investment in innovation, skills and our ecosystem, both organically and through acquisitions, as we accelerate and execute our hybrid cloud and AI strategy. Our work to digitally transform our operations provides flexibility to continue to invest in innovation and in talent.

Total expense and other (income) increased 18.3 percent in 2022 versus the prior year primarily driven by the one-time, non-cash pension settlement charge of $5.9 billion, higher spending reflecting our continuing focus on our portfolio and investment in our offerings, technical talent and ecosystem, and year-to-year impacts related to Kyndryl retained shares, partially offset by the effects of currency and benefits from the actions taken to streamline operations and our go-to-market model.

Total operating (non-GAAP) expense and other (income) decreased 3.2 percent year to year, driven primarily by the effects of currency and benefits from the actions taken to streamline operations and our go-to-market model, partially offset by higher spending reflecting our continuing focus on our portfolio and investment in our offerings, technical talent and ecosystem.

For additional information regarding total expense and other (income) for both expense presentations, see the following analyses by category.

Selling, General and Administrative Expense

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change
Selling, general and administrative expense			
Selling, general and administrative–other	$15,537	$15,550	(0.1)%
Advertising and promotional expense	1,330	1,413	(5.9)
Workforce rebalancing charges	50	181	(72.4)
Amortization of acquired intangible assets	1,062	1,116	(4.8)
Stock-based compensation	566	555	1.9
Provision for/(benefit from) expected credit loss expense	64	(71)	NM
Total selling, general and administrative expense	$18,609	$18,745	(0.7)%
Non-operating adjustments			
Amortization of acquired intangible assets	(1,062)	(1,116)	(4.8)
Acquisition-related charges	(17)	(43)	(60.4)
Kyndryl-related impacts	0	(8)	(95.5)
Operating (non-GAAP) selling, general and administrative expense	$17,529	$17,577	(0.3)%

NM–Not meaningful

Total selling, general and administrative (SG&A) expense decreased 0.7 percent in 2022 versus 2021, driven primarily by the following factors:

- The effects of currency (4 points); and
- Lower workforce rebalancing charges (1 point); partially offset by
- Higher spending (3 points) reflecting our continuing investment to drive our hybrid cloud and AI strategy, expenses of acquired businesses and higher travel and commission expense, partially offset by benefits from the actions taken to transform our operations and lower spending for shared services transferred to Kyndryl; and
- A provision for expected credit loss expense in the current year compared to a benefit in the prior year (1 point).

Operating (non-GAAP) SG&A expense decreased 0.3 percent year to year primarily driven by the same factors.

Provisions for expected credit loss expense was $64 million in 2022 as compared to a benefit of $71 million in 2021. The year-to-year change was primarily driven by an increase in specific reserves in the current year compared to decreases in both general and specific reserves in the prior year. The prior-year decreases were primarily driven by improvement in customer credit quality and some emergence from bankruptcies as economies began to reopen after the global pandemic shutdowns. The receivables provision coverage was 2.4 percent at December 31, 2022, an increase of 30 basis points from December 31, 2021 driven by an increase in specific reserves and, to a lesser extent, a decrease in receivables.

Research, Development and Engineering Expense

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change
Total research, development and engineering	$6,567	$6,488	1.2 %

Research, development and engineering (RD&E) expense increased 1.2 percent in 2022 versus 2021, reflecting our continuing investment to deliver innovation in AI, hybrid cloud and emerging areas such as quantum. The year-to-year increase was primarily driven by higher spending (3 points), partially offset by the effects of currency (2 points).

Intellectual Property and Custom Development Income

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change
Licensing of intellectual property including royalty-based fees	$397	$306	29.7 %
Custom development income	246	272	(9.4)
Sales/other transfers of intellectual property	21	35	(40.1)
Total	$663	$612	8.4 %

Total Intellectual Property and Custom Development Income increased 8.4 percent in 2022 compared to 2021. In the fourth quarter of 2022, we signed a three-year joint development and licensing agreement with a Japanese consortium to leverage our intellectual property and expertise on advanced semiconductors which resulted in income of approximately $100 million in 2022.

The timing and amount of licensing, sales or other transfers of IP may vary significantly from period to period depending upon the timing of licensing agreements, economic conditions, industry consolidation and the timing of new patents and know-how development.

Other (Income) and Expense

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change
Other (income) and expense			
Foreign currency transaction losses/(gains)	$ (643)	$ (204)	214.7 %
(Gains)/losses on derivative instruments	225	205	9.9
Interest income	(162)	(52)	211.1
Net (gains)/losses from securities and investment assets	278	(133)	NM
Retirement-related costs/(income)	6,548 *	1,282	NM
Other	(443)	(225)	97.0
Total other (income) and expense	$ 5,803	$ 873	NM
Non-operating adjustments			
Amortization of acquired intangible assets	(2)	(2)	—
Acquisition-related charges	(1)	—	NM
Non-operating retirement-related costs/(income)	(6,548)*	(1,282)	NM
Kyndryl-related impacts	(351)	126	NM
Operating (non-GAAP) other (income) and expense	$(1,099)	$ (285)	285.2 %

* Includes a one-time, non-cash pension settlement charge of $5.9 billion.

NM–Not meaningful

Total other (income) and expense was $5,803 million of expense in 2022 compared to $873 million in 2021. The year-to-year increase
was primarily driven by:

- Higher non-operating retirement-related costs ($5,266 million) driven by the third-quarter 2022 pension settlement charge. Refer to note V, "Retirement-Related Benefits," for additional information; and
- Net losses related to Kyndryl retained shares in the current year versus a net gain in the prior year ($393 million); partially offset by
- Net exchange gains (including foreign exchange derivative instruments) in the current year versus net exchange losses in the prior year ($418 million). The current-year (gains)/losses on derivative instruments includes a loss on the cash-settled swap related to the Kyndryl retained shares ($83 million);
- Higher gains on divestitures year to year ($234 million) primarily driven by the divestiture of our healthcare software assets (included in "Other"); and
- Higher interest income ($110 million) driven by higher average interest rates in the current year.

Operating (non-GAAP) other (income) and expense was $1,099 million of income in 2022 and increased $814 million compared to the prior year. The year-to-year increase was driven primarily by the effects of currency, higher gains on divestitures and higher interest income described above.

Interest Expense

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change
Total interest expense	$1,216	$1,155	5.3 %

Interest expense increased $61 million compared to 2021. Interest expense is presented in cost of financing in the Consolidated Income Statement only if the related external borrowings are to support the Financing external business. Overall interest expense (excluding capitalized interest) in 2022 was $1,562 million, an increase of $14 million year to year primarily driven by higher average interest rates, partially offset by a lower average debt balance in the current year.

Stock-Based Compensation

Pre-tax stock-based compensation cost of $987 million increased $68 million compared to 2021. This was primarily due to a current-year change in our Employee Stock Purchase Plan which is considered compensatory beginning second-quarter 2022 ($43 million), an increase from performance share units ($21 million), grants of stock options in the current year ($19 million) and an increase from restricted stock units ($17 million), partially offset by a decrease associated with options previously issued by acquired entities ($31 million). Stock-based compensation cost, and the year-to-year change, was reflected in the following categories: Cost: $164 million, up $18 million; SG&A expense: $566 million, up $10 million; and RD&E expense: $258 million, up $40 million.

Retirement-Related Plans

The following table provides the total pre-tax cost for all retirement-related plans. Total operating costs/(income) are included in the Consolidated Income Statement within the caption (e.g., Cost, SG&A, RD&E) relating to the job function of the plan participants.

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change
Retirement-related plans–cost			
Service cost	$ 245	$ 312	(21.3)%
Multi-employer plans	15	17	(12.9)
Cost of defined contribution plans	924	992	(6.8)
Total operating costs/(income)	$ 1,184	$ 1,320	(10.3)%
Interest cost	$ 1,731	$ 1,626	6.4 %
Expected return on plan assets	(2,747)	(2,920)	(5.9)
Recognized actuarial losses	1,568	2,454	(36.1)
Amortization of prior service costs/(credits)	12	9	31.1
Curtailments/settlements	5,970 *	94	NM
Other costs	15	18	(19.2)
Total non-operating costs/(income)	$ 6,548 *	$ 1,282	NM
Total retirement-related plans–cost	$ 7,732 *	$ 2,601	197.2 %

* Includes a one-time, non-cash pension settlement charge of $5.9 billion.

NM–Not meaningful

Total pre-tax retirement-related plan cost increased by $5,131 million compared to 2021, primarily due to an increase in curtailment/settlements ($5,875 million) driven by the $5.9 billion third-quarter pension settlement charge, lower expected returns on plan assets ($174 million) and higher interest costs ($105 million), partially offset by a decrease in recognized actuarial losses ($886 million), lower cost of defined contribution plans ($67 million) and lower service cost ($66 million).

As discussed in the “Operating (non-GAAP) Earnings” section, we characterize certain retirement-related costs as operating and others as non-operating. Utilizing this characterization, operating retirement-related costs in 2022 were $1,184 million, a decrease of $136 million compared to 2021. These operating cost decreases were primarily driven by lower cost of defined contribution plans and lower service cost. Non-operating costs of $6,548 million in 2022 increased $5,267 million year to year, driven primarily by the pension settlement charge, lower expected returns on plan assets and higher interest costs, partially offset by a decrease in recognized actuarial losses.

Income Taxes

The continuing operations effective tax rate for 2022 was (54.2) percent compared to 2.6 percent in 2021. The current-year effective tax rate was primarily driven by the transfer of a portion of the Qualified PPP’s defined benefit pension obligations and related plan assets. The prior-year effective tax rate was primarily driven by tax benefits related to audit settlements in multiple jurisdictions.

The operating (non-GAAP) effective tax rate for 2022 was 15.2 percent compared to 9.0 percent in 2021. The prior-year operating (non-GAAP) effective tax rate was primarily driven by tax benefits related to audit settlements in multiple jurisdictions. For more information, see note H, "Taxes."

Earnings Per Share

Basic earnings per share is computed on the basis of the weighted-average number of shares of common stock outstanding during the period. Diluted earnings per share is computed on the basis of the weighted-average number of shares of common stock outstanding plus the effect of dilutive potential common shares outstanding during the period using the treasury stock method. Dilutive potential common shares include outstanding stock options and stock awards.

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change
Earnings per share of common stock from continuing operations			
Assuming dilution	$1.95 *	$5.21	(62.6)%
Basic	$1.97 *	$5.26	(62.5)%
Diluted operating (non-GAAP)	$9.13	$7.93	15.1 %
Weighted-average shares outstanding (in millions)			
Assuming dilution	912.3	904.6	0.8 %
Basic	902.7	896.0	0.7 %

* The $5.9 billion one-time, non-cash, pre-tax pension settlement charge resulted in an impact of ($4.84) to diluted earnings per share from continuing operations and an impact of ($4.89) to basic earnings per share from continuing operations.

Actual shares outstanding at December 31, 2022 and 2021 were 906.1 million and 898.1 million, respectively. The year-to-year increase was primarily the result of the common stock issued under employee plans. The average number of common shares outstanding assuming dilution was 7.6 million shares higher in 2022 versus 2021.

Financial Position

Dynamics

Our balance sheet at December 31, 2022 remained strong and continues to provide us with flexibility to support and invest in the business.

Cash, restricted cash and marketable securities at December 31, 2022 were $8,840 million, an increase of $1,283 million compared to prior year end. Total debt of $50,949 million decreased $755 million from prior year end primarily driven by currency impacts. We continue to manage our debt levels while being acquisitive and without sacrificing investments in our business or our solid and growing dividend.

Our cash flow is presented on a consolidated basis and includes discontinued operations. Refer to note C, "Separation of Kyndryl," for additional information. During 2022, we generated $10,435 million in cash from operating activities, a decrease of $2,361 million compared to 2021 driven by a decline in financing receivables. Our free cash flow for 2022 was $9,291 million, an increase of $2,784 million versus the prior year. See pages 34 and 35 for additional information on free cash flow. We invested $2,348 million in acquisitions to accelerate our hybrid cloud and AI capabilities, generated $1,272 million from the divestiture of certain businesses, and returned $5,948 million to shareholders through dividends in 2022. There was no cash flow impact from the U.S. pension settlement charge. Our cash generation supports invesment and deployment of capital to areas with the most attractive long-term opportunities.

Consistent with accounting standards, the company remeasured the funded status of our retirement and postretirement plans at December 31. As a result of higher discount rates, partially offset by negative asset returns of 14.3 percent and 15.7 percent on our U.S. and global qualified plans, respectively, the remeasurement resulted in a significant reduction to our pension plan benefit obligations and an improvement in our overall funded status. In addition, as discussed in the Overview section, we transferred $16 billion of our U.S. Qualified PPP obligations and related plan assets to Insurers in 2022 to further reduce the risk profile of our plans. The overall net underfunded position at December 31, 2022 was $2,151 million, a decrease of $3,299 million from the prior year end. At December 31, 2022, the U.S. Qualified PPP was 125 percent funded and the qualified defined benefit plans worldwide were 114 percent funded. The required contributions related to these plans and multi-employer plans are expected to be approximately $200 million in 2023.

IBM Working Capital

($ in millions)

At December 31:	2022	2021
Current assets	$29,118	$29,539
Current liabilities	31,505	33,619
Working capital	$ (2,387)	$ (4,080)
Current ratio	0.92:1	0.88:1

Working capital increased $1,693 million from the year-end 2021 position. Current assets decreased $421 million (increased $589 million adjusted for currency) due to a decline in prepaid expenses and other current assets primarily from the disposition of our investment in Kyndryl of $807 million, and a decrease in accounts receivable driven by currency; partially offset by a net increase in cash and restricted cash. Current liabilities decreased $2,114 million ($1,133 million adjusted for currency) due to a decrease in short-term debt mainly due to maturities; partially offset by reclassifications from long-term debt to reflect upcoming maturities.

Receivables and Allowances

Roll Forward of Total IBM Receivables Allowance for Credit Losses

($ in millions)

January 1, 2022	Additions/ (Releases) *	Write-offs **	Foreign currency and other È	December 31, 2022
$443	$ 65	$(55)	$ 43	$495

* Additions/(Releases) for allowance for credit losses are recorded in expense.

** Refer to note A, “Significant Accounting Policies,” for additional information regarding allowance for credit losses write-offs.

È Other includes reserve additions/(releases) related to discontinued operations.

Excluding receivables classified as held for sale, the total IBM receivables provision coverage was 2.4 percent at December 31, 2022, an increase of 30 basis points compared to December 31, 2021. The increase in coverage was primarily driven by an increase in specific reserves and, to a lesser extent, a decrease in receivables. The majority of the write-offs during the year related to receivables which had been previously reserved.

Financing Segment Receivables and Allowances

The following table presents external Financing segment receivables excluding receivables classified as held for sale, and immaterial miscellaneous receivables.

($ in millions)

At December 31:	2022	2021
Amortized cost*	$12,843	$12,859
Specific allowance for credit losses	127	159
Unallocated allowance for credit losses	46	42
Total allowance for credit losses	173	201
Net financing receivables	$12,670	$12,658
Allowance for credit losses coverage	1.3 %	1.6 %

* Includes deferred initial direct costs which are expensed in IBM’s consolidated financial results.

The percentage of Financing segment receivables reserved decreased from 1.6 percent at December 31, 2021, to 1.3 percent at December 31, 2022, primarily driven by write-offs of previously reserved receivables.

Roll Forward of Financing Segment Receivables Allowance for Credit Losses (included in Total IBM)

($ in millions)

January 1, 2022	Additions/ (Releases) *	Write-offs **	Foreign currency and other	December 31, 2022
$201	$(3)	$(25)	$ 1	$173

* Additions/(Releases) for allowance for credit losses are recorded in expense.

** Refer to note A, “Significant Accounting Policies,” for additional information regarding allowance for credit loss write-offs.

Financing's expected credit loss expense (including reserves for off-balance sheet commitments which are recorded in other liabilities) was a net release of $5 million and $54 million at December 31, 2022 and 2021, respectively. The prior-year net release was primarily driven by lower unallocated reserve requirements in Americas and EMEA due to sales of receivables.

Noncurrent Assets and Liabilities

($ in millions)

At December 31:	2022	2021
Noncurrent assets	$98,125	$102,462
Long-term debt	$46,189	$ 44,917
Noncurrent liabilities (excluding debt)	$27,528	$ 34,469

The decrease in noncurrent assets of $4,337 million ($1,912 million adjusted for currency) was driven by a decrease in prepaid pension assets and associated deferred taxes mainly driven by plan remeasurements, amortization of intangibles, and derecognition of goodwill and intangible assets related to the divestiture of our healthcare software assets.

Long-term debt increased $1,272 million ($2,329 million adjusted for currency) primarily driven by issuances; partially offset by reclassifications to short-term debt to reflect upcoming maturities and currency impacts.

Noncurrent liabilities (excluding debt) decreased $6,942 million ($5,515 million adjusted for currency) primarily driven by a decrease in retirement and postretirement benefit obligations and deferred taxes driven by plan remeasurements.

Debt

Our funding requirements are continually monitored and we execute our strategies to manage the overall asset and liability profile. Additionally, we maintain sufficient flexibility to access global funding sources as needed.

($ in millions)

At December 31:	2022	2021
Total debt	$50,949	$51,703
Financing segment debt*	$12,872	$13,929
Non-Financing debt	$38,077	$37,775

* Financing segment debt includes debt of $918 million in 2022 and $1,345 million in 2021 to support intercompany financing receivables and other intercompany assets. Refer to Financing's "Financial Position" on page 41 for additional details.

Total debt of $50,949 million decreased $755 million (increased $296 million adjusted for currency) from December 31, 2021, primarily driven by maturities of $6,984 million and currency impacts; partially offset by issuances of $7,971 million.

Non-Financing debt of $38,077 million increased $302 million ($983 million adjusting for currency) from December 31, 2021, primarily due to new debt issuances.

Financing segment debt of $12,872 million decreased $1,057 million ($687 million adjusting for currency) from December 31, 2021, primarily due to lower funding requirements associated with financing assets.

Financing provides financing solutions predominantly for IBM's external client assets, and the debt used to fund Financing assets is primarily composed of intercompany loans. Total debt changes generally correspond with the level of client and commercial financing receivables, the level of cash and cash equivalents, the change in intercompany and external payables and the change in intercompany investment from IBM. The terms of the intercompany loans are set by the company to substantially match the term, currency and interest rate variability underlying the financing receivable. The Financing debt-to-equity ratio remained at 9.0 to 1 at December 31, 2022.

We measure Financing as a stand-alone entity, and accordingly, interest expense relating to debt supporting Financing's external client and internal business is included in the "Financing Results of Operations" and in note E, "Segments." In the Consolidated Income Statement, the external debt-related interest expense supporting Financing's internal financing to the company is classified as interest expense.

Equity

Total equity increased $3,025 million from December 31, 2021 as a result of:

- A decrease in accumulated other comprehensive loss of $6,494 million driven by retirement-related benefit plans, primarily due to the pension settlement charge of $4,411 million, net of tax;
- Net income of $1,639 million, which includes the pension settlement charge of $4,411 million net of tax; and
- Common stock issuances of $962 million; partially offset by
- Dividends paid of $5,948 million.

Cash Flow

Our cash flows from operating, investing and financing activities, as reflected in the Consolidated Statement of Cash Flows on page 49, are summarized in the table below and include the cash flows of discontinued operations. These amounts also include the cash flows associated with the Financing business.

($ in millions)

For the year ended December 31:	2022	2021
Net cash provided by/(used in)		
Operating activities	$10,435	$ 12,796
Investing activities	(4,202)	(5,975)
Financing activities	(4,958)	(13,354)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(244)	(185)
Net change in cash, cash equivalents and restricted cash	$ 1,032	$ (6,718)

Net cash provided by operating activities decreased $2,361 million in 2022. This was due to a decrease in cash provided by financing receivables of $4,623 million primarily driven by higher prior-year sales of financing receivables and current-year z16 product cycle dynamics, partially offset by an increase in cash from sales cycle working capital of $2,027 million primarily due to efficiencies in our collections, and a decrease in payments for structural actions and Kyndryl separation-related charges.

Net cash used in investing activities decreased $1,773 million driven by an increase in cash provided by divestitures, and a decrease in cash used in acquisitions.

Net cash used in financing activities decreased $8,397 million. Total debt was a net source of cash of $1,221 million in 2022 as compared to a net use of cash of $8,116 million in 2021. The year-to-year change was driven by higher issuances offsetting maturities in the current year, compared to net higher maturities in the prior year.

Discontinued Operations

Pre-tax loss from discontinued operations was $20 million in 2022 compared to pre-tax income of $1,744 million in the prior year. As the separation of Kyndryl occurred on November 3, 2021, the discontinued operations results for 2021 included ten months of Kyndryl operations. The loss in 2022 primarily reflects the net impact of changes in separation-related estimates, the settlement of assets and liabilities in accordance with the separation and distribution agreement and a gain on sale of a joint venture historically managed by Kyndryl, which transferred to Kyndryl in the first quarter of 2022 upon receiving regulatory approval. The discontinued operations provision for income taxes in 2022 was $124 million compared with $714 million in 2021. The discontinued operations provision for income taxes for the year ended December 31, 2022, primarily reflects the impact of provision to return adjustments on the Kyndryl-related taxes. See note C, “Separation of Kyndryl,” for additional information.

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GAAP Reconciliation

The tables below provide a reconciliation of our income statement results as reported under GAAP to our operating earnings presentation which is a non-GAAP measure. Management's calculation of operating (non-GAAP) earnings, as presented, may differ from similarly titled measures reported by other companies. Please refer to the "Operating (non-GAAP) Earnings" section for management's rationale for presenting operating earnings information.

($ in millions except per share amounts)

For the year ended December 31, 2022:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments *	U.S. Tax Reform Impacts	Kyndryl-Related Impacts	Operating (non-GAAP)
Gross profit	$32,687	$ 682	$ —	$ —	$ —	$ 33,370
Gross profit margin	54.0 %	1.1 pts.	— pts.	— pts.	— pts.	55.1 %
SG&A	$18,609	$ (1,080)	$ —	$ —	$ 0	$ 17,529
Other (income) and expense	5,803	(3)	(6,548)	—	(351)	(1,099)
Total expense and other (income)	31,531	(1,083)	(6,548)	—	(351)	23,549
Pre-tax income from continuing operations	1,156	1,765	6,548	—	351	9,821
Pre-tax margin from continuing operations	1.9 %	2.9 pts.	10.8 pts.	— pts.	0.6 pts.	16.2 %
Provision for/(benefit from) income taxes**	$ (626)	$ 436	$ 1,615	$ 70	$ —	$ 1,495
Effective tax rate	(54.2)%	14.2 pts.	52.6 pts.	0.7 pts.	1.9 pts.	15.2 %
Income from continuing operations	$ 1,783	$ 1,329	$ 4,933	$ (70)	$ 351	$ 8,326
Income margin from continuing operations	2.9 %	2.2 pts.	8.1 pts.	(0.1)pts.	0.6 pts.	13.8 %
Diluted earnings per share from continuing operations	$ 1.95	$ 1.46	$ 5.41	$(0.08)	$ 0.38	$ 9.13

* Retirement-Related Adjustments includes a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion after tax). See note V "Retirement-Related Benefits," for additional information.

** The tax impact on operating (non-GAAP) pre-tax income is calculated under the same accounting principles applied to the GAAP pre-tax income which employs an annual effective tax rate method to the results.

($ in millions except per share amounts)

For the year ended December 31, 2021:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Kyndryl-Related Impacts	Operating (non-GAAP)
Gross profit	$31,486	$ 719	$ —	$ —	$ —	$ 32,205
Gross profit margin	54.9 %	1.3 pts.	— pts.	— pts.	— pts.	56.2 %
SG&A	$18,745	$ (1,160)	$ —	$ —	$ (8)	$ 17,577
Other (income) and expense	873	(2)	(1,282)	—	126	(285)
Total expense and other (income)	26,649	(1,162)	(1,282)	—	118	24,324
Pre-tax income from continuing operations	4,837	1,881	1,282	—	(118)	7,881
Pre-tax margin from continuing operations	8.4 %	3.3 pts.	2.2 pts.	— pts.	(0.2)pts.	13.7 %
Provision for income taxes*	$ 124	$ 457	$ 251	$ (89)	$ (37)	$ 706
Effective tax rate	2.6 %	5.2 pts.	2.8 pts.	(1.1)pts.	(0.4)pts.	9.0 %
Income from continuing operations	$ 4,712	$ 1,424	$ 1,031	$ 89	$ (81)	$ 7,174
Income margin from continuing operations	8.2 %	2.5 pts.	1.8 pts.	0.2 pts.	(0.1)pts.	12.5 %
Diluted earnings per share from continuing operations	$ 5.21	$ 1.57	$ 1.14	$ 0.10	$(0.09)	$ 7.93

* The tax impact on operating (non-GAAP) pre-tax income is calculated under the same accounting principles applied to the GAAP pre-tax income which employs an annual effective tax rate method to the results.

PRIOR YEAR IN REVIEW

This section provides a summary of our segment results and year-to-year comparisons between 2021 and 2020. These results have been recast to conform to our segment change effective first-quarter 2022 which impacted the Software segment and the Other—divested businesses category. The recast results are presented below. There was no change to the Consulting, Infrastructure or Financing segments, and there was no change to our consolidated results. Refer to "Year in Review" pages 17 to 29 of the "Management Discussion" section of our 2021 Annual Report for other details of our financial performance in 2021 compared to 2020.

Segment Details

The table below presents each reportable segment's revenue and gross margin results. Prior-year results have been recast to conform with the segment change effective first-quarter 2022.

($ in millions)

For the year ended December 31:	2021	2020	Yr.-to-Yr. Percent/ Margin Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Revenue				
Software	$23,426 *	$22,124 *	5.9 %	4.7 %
Gross margin	79.6 %*	79.3 %*	0.3 pts.	
Consulting	17,844	16,257	9.8 %	8.3 %
Gross margin	28.0 %	29.3 %	(1.3)pts.	
Infrastructure	14,188	14,533	(2.4)%	(3.4)%
Gross margin	55.3 %	57.5 %	(2.2)pts.	
Financing	774	975	(20.6)%	(21.9)%
Gross margin	31.7 %	41.6 %	(9.9)pts.	
Other	1,119 *	1,291 *	(13.3)%	(14.4)%
Gross margin	(22.3)%*	(16.0)%*	(6.2)pts.	
Total revenue	$57,350	$55,179	3.9 %	2.7 %
Total gross profit	$31,486	$30,865	2.0 %	
Total gross margin	54.9 %	55.9 %	(1.0)pts.	
Non-operating adjustments				
Amortization of acquired intangible assets	719	726	(1.0)%	
Operating (non-GAAP) gross profit	$32,205	$31,591	1.9 %	
Operating (non-GAAP) gross margin	56.2 %	57.3 %	(1.1)pts.	

* Recast to reflect segment change.

Software

($ in millions)

For the year ended December 31:	2021	2020	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Software revenue	$23,426 *	$22,124 *	5.9 %	4.7 %
Hybrid Platform & Solutions	$17,036 *	$15,518 *	9.8 %	8.5 %
Red Hat			30.6	29.6
Automation			6.1	4.8
Data & AI			0.0	(1.2)
Security			6.8	5.0
Transaction Processing	6,390	6,606	(3.3)	(4.2)

* Recast to reflect segment change.

Software revenue of $23,426 million increased 5.9 percent as reported (5 percent adjusted for currency) in 2021 compared to the prior year. In the fourth quarter of 2021, we had incremental sales to Kyndryl, representing approximately 2 points of full-year revenue growth. We had strong double-digit growth in Software hybrid cloud revenue as reported and adjusted for currency. There was strong growth in Hybrid Platform & Solutions, as reported and at constant currency, driven primarily by Red Hat, Security and Automation, as our strategy around hybrid cloud and AI solutions continued to resonate with our clients. Transaction Processing revenue decreased year to year as reported and adjusted for currency. Although a significant portion of the revenue in this area is annuity based, the timing of larger transactions is tied to client buying cycles and their preference for more consumption-like models which impacted sales of perpetual licenses.

Hybrid Platform & Solutions revenue of $17,036 million increased 9.8 percent as reported (9 percent adjusted for currency) in 2021 compared to the prior year. The incremental sales from Kyndryl in the fourth quarter of 2021 in Hybrid Platform & Solutions were not material to the full-year revenue growth. Red Hat revenue increased 30.6 percent as reported

(30 percent adjusted for currency), with strong growth across infrastructure software and application development and emerging technologies, as RHEL and OpenShift address

enterprises' critical hybrid cloud requirements. Automation revenue increased 6.1 percent as reported (5 percent adjusted for currency), reflecting solid performance in AIOps and Management as we help our clients address resource management and observability. We are building our capabilities both organically and inorganically, and clients are realizing rapid time to value from our acquisitions including Instana and Turbonomic. Security revenue increased 6.8 percent as reported (5 percent adjusted for currency) with year-to-year growth across security software and services. Security innovation is an integral part of our strategy and, in the fourth quarter of 2021, we launched a new data security solution, Guardium Insights, and completed the acquisition of ReaQta. Data & AI revenue was flat year to year and declined 1 percent adjusted for currency. Within Data & AI, we had solid year-to-year growth in Data Fabric as well as our Business Analytics and Weather offerings.

Transaction Processing revenue of $6,390 million decreased 3.3 percent as reported (4 percent adjusted for currency) in 2021 compared to the prior year. Incremental sales from Kyndryl in the fourth quarter of 2021 contributed approximately 5 points of full-year revenue growth. In 2021, clients continued their preference for operating expenses over capital expenditures, which continued to put pressure on perpetual licenses, in favor of more consumption-like models. Our subscription and support renewal rate was stronger in 2021 compared to the prior year, reflecting our clients' commitment to our infrastructure platform and our high-value software offerings.

Within Software, hybrid cloud revenue of $8.4 billion grew 29 percent as reported and 27 percent adjusted for currency year to year, driven by Red Hat as well as our software that has been optimized for our hybrid cloud platform which helps our clients apply AI, automation and security across their environments to transform and improve their business workflows.

($ in millions)

For the year ended December 31:	2021 *	2020 *	Yr.-to-Yr. Percent/ Margin Change
Software			
Gross profit	$18,648	$17,548	6.3 %
Gross profit margin	79.6 %	79.3 %	0.3 pts.
Pre-tax income	$ 4,849	$ 3,423	41.7 %
Pre-tax margin	20.7 %	15.5 %	5.2 pts.

* Recast to reflect segment change.

The Software gross profit margin increased 0.3 points to 79.6 percent in 2021 compared to the prior year. Pre-tax income of $4,849 million increased 41.7 percent compared to the prior year with a pre-tax margin expansion of 5.2 points to 20.7 percent. The increase in pre-tax income and margin reflects the lower workforce rebalancing charges year to year, which resulted in a 3.3 point improvement in the pre-tax margin compared to 2020.

OTHER INFORMATION

Looking Forward

As technology remains a fundamental source of competitive advantage, we continue to see strong demand for our hybrid cloud and AI solutions. It is clear that technology is playing a significant role in today's environment as clients continue to navigate several challenges including inflation and demographic shifts, supply chain issues and heightened sustainability efforts. We are helping our clients seize new business opportunities, overcome today's challenges and emerge stronger. We are building a stronger, more focused company that is closely aligned to the needs of our clients. We have continued to focus our portfolio in hybrid cloud and AI, invest in our offerings, technical talent and ecosystem and streamline our go-to-market model.

Hybrid Cloud and AI Progress

We believe hybrid cloud and AI are the two most transformational enterprise technologies of our time. These technologies work together to drive business outcomes. Hybrid cloud is where the world is going and containers are the preferred destination for applications. Our platform, built on Red Hat, is the leading container platform. It allows our clients to harness the power of open-source software innovations. Our software and infrastructure technologies have been optimized to run on that platform and include advanced data and AI, automation and the security capabilities our clients need. Our global team of consultants leverage their extensive technical and business expertise to accelerate clients' digital transformation journeys. Companies are eager to deploy AI and automation capabilities to boost their levels of productivity. We have been co-creating with clients to deploy AI at scale. We are investing in large language or foundation models, that will allow our clients to deploy AI with greater speed and less resources and we have infused these capabilities across our AI portfolio.

Our partner ecosystem is a key element of our strategy. We continue to expand and extend the work we do with partners to serve our joint clients through strategic collaboration agreements. In 2023, we are expanding and better enabling our broader ecosystem. In January, we launched PartnerPlus, a new, simplified program that increases our reach and scale through new and existing IBM partners.

We continue to invest, both organically and inorganically, to deliver innovation for our clients and shape the technologies of the future. Throughout 2022, we delivered significant innovations in Infrastructure with our z16 and Power platforms. Quantum is an example of our commitment to shape the future of technology. We unveiled Osprey, a 433-qubit quantum processor that brings us closer to delivering our goal of building a 1,000+ qubit system in 2023. We also formed a collaboration with a Japanese consortium to leverage the depth of our intellectual property on advanced semiconductors. We completed eight acquisitions in 2022 to complement our organic innovation, adding capabilities in areas like hybrid cloud services, security, data observability and sustainability and expanded our footprint in the U.S. Federal market with our acquisition of Octo. Additionally, as sustainability becomes more of a priority, companies need digital technologies to create a baseline, analyze data and improve the way they operate. We have been building a portfolio of solutions to help companies make progress on this journey.

We remain confident in the strategy that we are executing and in the fundamentals of our business. Our balance sheet and liquidity position remain strong. At December 31, 2022 we had $8.8 billion of cash and cash equivalents, restricted cash and marketable securities and we continue to manage our debt levels while being acquisitive and without sacrificing investments in our business or our solid dividend policy. We also took actions in 2022 to further reduce the risk profile of our retirement-related plans.

Our 2022 performance demonstrates that we are now a higher-growth, higher-value company. Our strategy continues to strongly resonate with clients and partners. We enter 2023 as a more capable and nimble company, well-equipped to meet our clients' needs. We expect to continue our progress as a leading hybrid cloud and AI company with a focus on revenue growth and cash generation while maintaining our solid and modestly growing dividend policy.

We expect a few dynamics to impact our profit in 2023. Currency was a significant headwind in 2022, impacting our revenue by approximately $3.5 billion. At mid-January spot rates, currency translation would be fairly neutral to revenue in 2023, with a headwind in the first-half changing to a tailwind in the second-half 2023. However, we recognized over $650 million of hedging gains in 2022 which will not repeat in 2023, resulting in an impact to our profit and cash on a year-to-year basis.

With the significant portfolio actions we have taken over the last couple of years, we have some remaining stranded costs in our business. We expect to address these remaining stranded costs early in the year and anticipate a charge of approximately $300 million in the first quarter of 2023. We would expect to generate savings in the second half and pay back by the end of the year.

Lastly, after completion of our annual review of useful lives of our property, plant and equipment assets, due to advances in technology, we have made an accounting change to extend the useful life of our server and network equipment, effective the first of January. Based on our year-end asset base, we expect this change to benefit 2023 pre-tax profit by over $200 million, primarily in our Infrastructure segment. Given this is a change to depreciation expense, there is no benefit to cash.

Retirement-Related Plans

The combination of higher discount rates and the U.S. pension risk transfer, partially offset by negative asset returns, improved the overall funded status of our plans. In aggregate, our worldwide-tax qualified plans are funded at 114 percent, with the U.S. at 125 percent. Contributions for all retirement-related plans are expected to be approximately $2.1 billion in 2023, an increase of approximately $100 million compared to 2022, of which $0.2 billion generally relates to legally required contributions to non-U.S. defined benefit and multi-employer plans. We expect 2023 pre-tax retirement-related plan cost to be approximately $1.2 billion. This estimate reflects current pension plan assumptions at December 31, 2022. Within total retirement-related plan cost, operating retirement-related plan cost is expected to be approximately $1.2 billion in 2023, approximately flat versus 2022. Non-operating retirement-related plan cost is expected to be approximately $0.1 billion, a decrease of approximately $6.5 billion compared to 2022, primarily driven by the $5.9 billion settlement charge resulting from the U.S. pension risk transfer, lower recognized actuarial losses, partially offset by higher interest cost.

Liquidity and Capital Resources

We have generated solid cash flow from operations allowing us to invest and deploy capital to areas with the most attractive long-term opportunities. We provide for additional liquidity through several sources: maintaining an adequate cash balance, access to global funding sources, committed global credit facilities and other committed and uncommitted lines of credit worldwide. The following table provides a summary of the major sources of liquidity for the years ended December 31, 2020 through 2022.

Cash Flow and Liquidity Trends

($ in billions)

	2022	2021	2020
Net cash from operating activities*	$10.4	$12.8 **	$18.2
Cash and cash equivalents, restricted cash and short-term marketable securities	$ 8.8	$ 7.6	$14.3
Committed global credit facilitiesÈ	$10.0	$10.0	$15.3

* Includes cash flows of discontinued operations of $1.6 billion and $4.4 billion in 2021 and 2020, respectively.

** Includes 10 months of Kyndryl operations, and reflects cash paid in 2021 for separation charges and structural actions initiated in the fourth-quarter 2020.

È See note P, “Borrowings,” for additional information.

The indenture governing our debt securities and our various credit facilities each contain significant covenants which obligate the company to promptly pay principal and interest, limit the aggregate amount of secured indebtedness and sale and leaseback transactions to 10 percent of IBM’s consolidated net tangible assets, and restrict our ability to merge or consolidate unless certain conditions are met. The credit facilities also include a covenant on our consolidated net interest expense ratio, which cannot be less than 2.20 to 1.0, as well as a cross default provision with respect to other defaulted indebtedness of at least $500 million.

We are in compliance with all of our significant debt covenants and provide periodic certification to our lenders. The failure to comply with debt covenants could constitute an event of default with respect to our debt to which such provisions apply. If certain events of default were to occur, the principal and interest on the debt to which such event of default applied would become immediately due and payable.

We do not have “ratings trigger” provisions in our debt covenants or documentation, which would allow the holders to declare an event of default and seek to accelerate payments thereunder in the event of a change in credit rating. Our debt covenants are well within the required levels. Our contractual agreements governing derivative instruments contain standard market clauses which can trigger the termination of the agreement if IBM’s credit rating were to fall below investment grade. At December 31, 2022, the fair value of those instruments that were in a liability position was $1,034 million, before any applicable netting, and this position is subject to fluctuations in fair value period to period based on the level of our outstanding instruments and market conditions. We have no other contractual arrangements that, in the event of a change in credit rating, would result in a material adverse effect on our financial position or liquidity.

The major ratings agencies’ ratings on our debt securities at December 31, 2022 were as follows and remain unchanged from December 31, 2021.

IBM Ratings	Standard and Poor’s	Moody’s Investors Service
Senior long-term debt	A-	A3
Commercial paper	A-2	Prime-2

IBM has ample financial flexibility, supported by our strong liquidity position and cash flows, to operate at a single A credit rating. We issued debt in 2022 to further improve our liquidity and plan for our 2023 debt maturities. Debt levels have decreased $0.8 billion from

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December 31, 2021 primarily driven by currency, partially offset by net debt issuances. In the first quarter of 2023, we issued $9.5 billion of debt primarily to plan for our debt maturity obligations in 2024. See note W, “Subsequent Events,” for additional information.

Effective December 31, 2021, the use of LIBOR was substantially eliminated for purposes of any new financial contract executions. The UK’s Financial Conduct Authority (FCA) extended the phase out of LIBOR in the case of U.S. dollar settings for certain tenors until the end of June 2023. Any legacy USD LIBOR based financial contracts are expected to be addressed using the LIBOR rates published through the June 2023 extension period. The replacement of the LIBOR benchmark within the company’s risk management activities did not have a material impact in the consolidated financial results.

We prepare our Consolidated Statement of Cash Flows in accordance with applicable accounting standards for cash flow presentation on page 49 and highlight causes and events underlying sources and uses of cash in that format on page 28. For the purpose of running its business, IBM manages, monitors and analyzes cash flows in a different manner.

Management uses free cash flow as a measure to evaluate its operating results, plan shareholder return levels, strategic investments and assess its ability and need to incur and service debt. The entire free cash flow amount is not necessarily available for discretionary expenditures. We define free cash flow as net cash from operating activities less the change in Financing receivables and net capital expenditures, including the investment in software. A key objective of the Financing business is to generate strong returns on equity, and our Financing receivables are the basis for that growth. Accordingly, management considers Financing receivables as a profit-generating investment, not as working capital that should be minimized for efficiency. Therefore, management includes presentations of both free cash flow and net cash from operating activities that exclude the effect of Financing receivables.

The following is management’s view of cash flows for 2022, 2021 and 2020 prepared in a manner consistent with the description above and is presented on a consolidated basis, including cash flows of discontinued operations.

($ in billions)

For the year ended December 31:	**2022**	**2021**	**2020**
Net cash from operating activities per GAAP*	$10.4	$12.8	$18.2
Less: the change in Financing receivables	(0.7)	3.9	4.3
Net cash from operating activities, excluding Financing receivables	11.2	8.9	13.8
Capital expenditures, net	(1.9)	(2.4)	(3.0)
Free cash flow (FCF)	9.3	6.5 **	10.8
Acquisitions	(2.3)	(3.3)	(0.3)
Divestitures	1.3	0.1	0.5
Dividends	(5.9)	(5.9)	(5.8)
Non-Financing debt	1.9	(1.2)	0.2
Other (includes Financing receivables and Financing debt)[È]	(2.9)	(3.0)[ÈÈ]	(0.1)
Change in cash, cash equivalents, restricted cash and short-term marketable securities	$ 1.3	$ (6.7)	$ 5.3

* Includes cash flows of discontinued operations of $1.6 billion and $4.4 billion in 2021 and 2020, respectively.

** Includes cash impacts of approximately $1.4 billion for Kyndryl-related structural actions and separation charges.

È Recast to conform to 2022 presentation.

ÈÈ Includes the distribution from Kyndryl of $0.9 billion.

From the perspective of how management views cash flow, in 2022, after investing $1.9 billion in capital investments, we generated free cash flow of $9.3 billion, an increase of $2.8 billion versus the prior year. The year-to-year increase in consolidated free cash flow reflects prior year Kyndryl-related activity including the impact of separation-related charges and capital expenditures, current year working capital improvements driven by efficiencies in collections and mainframe cycle dynamics, higher cash tax payments and payments for structural actions in 2021, partially offset by an increase in capital expenditures in 2022 to drive our strategy. In 2022, we continued to return value to shareholders with $5.9 billion in dividends and invested $2.3 billion in eight acquisitions.

IBM’s Board of Directors considers the dividend payment on a quarterly basis. In the second quarter of 2022, the Board of Directors increased the company’s quarterly common stock dividend from $1.64 to $1.65 per share.

Events that could temporarily change the historical cash flow dynamics discussed previously include significant changes in operating results, material changes in geographic sources of cash, unexpected adverse impacts from litigation, future pension funding requirements during periods of severe downturn in the capital markets or the timing of tax payments. Whether any litigation has such an adverse impact will depend on a number of variables, which are more completely described in note R, “Commitments & Contingencies.” With respect to pension funding, in 2022, we contributed $118 million to our non-U.S. defined benefit plans compared to $103 million in 2021. As highlighted in the Contractual Obligations table, we expect to make legally mandated pension plan contributions to certain non-U.S. plans of approximately $1.1 billion in the next five years. The 2023 contributions are currently expected to be approximately $200 million. Contributions related to all retirement-related plans are expected to be approximately

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$2.1 billion in 2023, an increase of approximately $100 million compared to 2022. Financial market performance could increase the legally mandated minimum contributions in certain non-U.S. countries that require more frequent remeasurement of the funded status. We are not quantifying any further impact from pension funding because it is not possible to predict future movements in the capital markets or pension plan funding regulations.

In 2023, we are not legally required to make any contributions to the U.S. defined benefit pension plans.

Our cash flows are sufficient to fund our current operations and obligations, including investing and financing activities such as dividends and debt service. When additional requirements arise, we have several liquidity options available. These options may include the ability to borrow additional funds at reasonable interest rates and utilizing our committed global credit facilities. With our share repurchase program suspended since the close of the Red Hat acquisition, our overall shareholder payout remains at a comfortable level and we remain fully committed to our long-standing dividend policy.

Contractual Obligations

($ in millions)

	Total Contractual Payment Stream	Payments Due In			
		2023	**2024–25**	**2026–27**	**After 2027**
Long-term debt obligations	$ 51,747	$4,679	$ 11,131	$ 9,368	$ 26,570
Interest on long-term debt obligations	16,305	1,492	2,536	1,906	10,371
Finance lease obligations*	239	75	111	37	15
Operating lease obligations*	3,331	960	1,343	715	313
Purchase obligations	2,771	1,223	1,351	176	21
Other long-term liabilities:					
Minimum defined benefit plan pension funding (mandated)**	1,100	200	500	400	
Excess 401(k) Plus Plan	1,528	221	472	512	323
Long-term termination benefits	853	168	153	98	434
Tax reserves[È]	5,636	143			
Other	576	164	111	43	258
Total	$ 84,086	$9,324	$ 17,708	$ 13,256	$ 38,306

* Finance lease obligations are presented on a discounted cash flow basis, whereas operating lease obligations are presented on an undiscounted cash flow basis.

** As funded status on plans will vary, obligations for mandated minimum pension payments after 2027 could not be reasonably estimated.

È These amounts represent the liability for unrecognized tax benefits. We estimate that approximately $143 million of the liability is expected to be settled within the next 12 months. The settlement period for the noncurrent portion of the income tax liability cannot be reasonably estimated as the timing of the payments will depend on the progress of tax examinations with the various tax authorities; however, it is not expected to be due within the next 12 months.

Certain contractual obligations reported in the previous table exclude the effects of time value and therefore, may not equal the amounts reported in the Consolidated Balance Sheet. Certain noncurrent liabilities are excluded from the previous table as their future cash outflows are uncertain. This includes deferred taxes, derivatives, deferred income, disability benefits and other sundry items. Certain obligations related to our divestitures are included.

Purchase obligations include all commitments to purchase goods or services of either a fixed or minimum quantity that meet any of the following criteria: (1) they are noncancelable, (2) we would incur a penalty if the agreement was canceled, or (3) we must make specified minimum payments even if we do not take delivery of the contracted products or services (take-or-pay). If the obligation to purchase goods or services is noncancelable, the entire value of the contract is included in the previous table. If the obligation is cancelable, but we would incur a penalty if canceled, the dollar amount of the penalty is included as a purchase obligation. Contracted minimum amounts specified in take-or-pay contracts are also included in the table as they represent the portion of each contract that is a firm commitment.

In the ordinary course of business, we enter into contracts that specify that we will purchase all or a portion of our requirements of a specific product, commodity or service from a supplier or vendor. These contracts are generally entered into in order to secure pricing or other negotiated terms. They do not specify fixed or minimum quantities to be purchased and, therefore, we do not consider them to be purchase obligations.

Interest on floating-rate debt obligations is calculated using the effective interest rate at December 31, 2022, plus the interest rate spread associated with that debt, if any.

Off-Balance Sheet Arrangements

In the normal course of business, we may enter into off-balance sheet arrangements such as client financing commitments and guarantees. At December 31, 2022, we had no off-balance sheet arrangements that have, or are reasonably likely to have, a material current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources. See the table above for our contractual obligations, and note R, "Commitments & Contingencies," for detailed information about our guarantees, financial commitments and indemnification arrangements. We do not have retained interests in assets transferred to unconsolidated entities or other material off-balance sheet interests or instruments.

Critical Accounting Estimates

The application of GAAP requires IBM to make estimates and assumptions about certain items and future events that directly affect its reported financial condition. The accounting estimates and assumptions discussed in this section are those that we consider to be the most critical to our financial statements. An accounting estimate is considered critical if both (a) the nature of the estimate or assumption is material due to the levels of subjectivity and judgment involved, and (b) the impact within a reasonable range of outcomes of the estimate and assumption is material to IBM's financial condition. Senior management has discussed the development, selection and disclosure of these estimates with the Audit Committee of IBM's Board of Directors. Our significant accounting policies are described in note A, "Significant Accounting Policies."

A quantitative sensitivity analysis is provided where that information is reasonably available, can be reliably estimated and provides material information to investors. The amounts used to assess sensitivity (e.g., 1 percent, 10 percent, etc.) are included to allow users of the financial statements to understand a general direction cause and effect of changes in the estimates and do not represent management's predictions of variability. For all of these estimates, it should be noted that future events rarely develop exactly as forecasted, and estimates require regular review and adjustment.

Pension Assumptions

For our defined benefit pension plans, the measurement of the benefit obligation to plan participants and net periodic pension (income)/cost requires the use of certain assumptions, including, among others, estimates of discount rates and expected return on plan assets.

Changes in the discount rate assumptions would impact the (gain)/loss amortization and interest cost components of the net periodic pension (income)/cost calculation and the projected benefit obligation (PBO). The discount rate assumption for the IBM Personal Pension Plan (PPP), a U.S.-based defined benefit plan, increased by 270 basis points to 5.30 percent on December 31, 2022. This change will decrease pre-tax income recognized in 2023 by an estimated $89 million. A 25 basis point increase or decrease in the discount rate assumption for the PPP would cause a corresponding decrease or increase, respectively, in the pre-tax income recognized in 2023 of an estimated $5 million. Further changes in the discount rate assumptions would impact the PBO which, in turn, may impact our funding decisions if the PBO exceeds plan assets. A 25 basis point increase or decrease in the discount rate would cause a corresponding decrease or increase, respectively, in the PPP's PBO of an estimated $0.4 billion based upon December 31, 2022 data.

The expected long-term return on plan assets assumption is used in calculating the net periodic pension (income)/cost. Expected returns on plan assets are calculated based on the market-related value of plan assets, which recognizes changes in the fair value of plan assets systematically over a five-year period in the expected return on plan assets line in net periodic pension (income)/cost. The differences between the actual return on plan assets and the expected long-term return on plan assets are recognized over five years in the expected return on plan assets line in net periodic pension (income)/cost and also as a component of actuarial (gains)/losses, which are recognized over the service lives or life expectancy of the participants, depending on the plan, provided such amounts exceed thresholds which are based upon the benefit obligation or the value of plan assets, as provided by accounting standards.

To the extent the outlook for long-term returns changes such that management changes its expected long-term return on plan assets assumption, each 50 basis point change in the expected long-term return on PPP plan assets assumption would have an estimated impact of $139 million on the following year's pre-tax net periodic pension (income)/cost (based upon the PPP's plan assets at December 31, 2022 and assuming no contributions are made in 2023).

We may voluntarily make contributions or be required, by law, to make contributions to our pension plans. Actual results that differ from the estimates may result in more or less future IBM funding into the pension plans than is planned by management. Impacts of these types of changes on our pension plans in other countries worldwide would vary depending upon the status of each respective plan.

In addition to the above, we evaluate other pension assumptions involving demographic factors, such as retirement age and mortality, and update these assumptions to reflect experience and expectations for the future. Actual results in any given year can differ from actuarial assumptions because of economic and other factors.

For additional information on our pension plans and the development of these assumptions, see note V, “Retirement-Related Benefits.”

Revenue Recognition

Application of GAAP related to the measurement and recognition of revenue requires us to make judgments and estimates. Specifically, complex arrangements with nonstandard terms and conditions may require significant contract interpretation to determine the appropriate accounting, including whether promised goods and services specified in an arrangement are distinct performance obligations. Other significant judgments include determining the standalone selling price (SSP), determining whether IBM or a reseller is acting as the principal in a transaction and whether separate contracts should be combined and considered part of one arrangement.

Revenue recognition is also impacted by our ability to determine when a contract is probable of collection and to estimate variable consideration, including, for example, rebates, volume discounts, service-level penalties and performance bonuses. We consider various factors when making these judgments, including a review of specific transactions, historical experience and market and economic conditions. Evaluations are conducted each quarter to assess the adequacy of the estimates. If the estimates were changed by 10 percent in 2022, the impact on net income would have been $65 million.

Costs to Complete Service Contracts

We enter into numerous service contracts through our services businesses. During the contractual period, revenue, cost and profits may be impacted by estimates of the ultimate profitability of each contract, especially contracts for which we use cost-to-cost measures of progress. For those contracts, if at any time these estimates indicate the contract will be unprofitable, the entire estimated loss for the remainder of the contract is recorded immediately in cost. We perform ongoing profitability analyses of these services contracts in order to determine whether the latest estimates require updating. Key factors reviewed to estimate the future costs to complete each contract are future labor costs and product costs and expected productivity efficiencies. Contract loss provisions recorded as a component of other accrued expenses and liabilities were immaterial at December 31, 2022 and 2021.

Income Taxes

We are subject to income taxes in the U.S. and numerous foreign jurisdictions. Significant judgments are required in determining the consolidated provision for income taxes.

During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. As a result, we recognize tax liabilities based on estimates of whether additional taxes and interest will be due. These tax liabilities are recognized when, despite our belief that our tax return positions are supportable, we believe that certain positions may not be fully sustained upon review by tax authorities. We believe that our accruals for tax liabilities are adequate for all open audit years based on our assessment of many factors, including past experience and interpretations of tax law. This assessment relies on estimates and assumptions and may involve a series of complex judgments about future events. To the extent that new information becomes available which causes us to change our judgment regarding the adequacy of existing tax liabilities, such changes to tax liabilities will impact income tax expense in the period in which such determination is made.

Significant judgment is also required in determining any valuation allowance recorded against deferred tax assets. In assessing the need for a valuation allowance, management considers all available evidence for each jurisdiction including past operating results, estimates of future taxable income and the feasibility of ongoing tax planning strategies/actions. In the event that we change our determination as to the amount of deferred tax assets that can be realized, we will adjust the valuation allowance with a corresponding impact to income tax expense in the period in which such determination is made.

The consolidated provision for income taxes will change period to period based on nonrecurring events, such as the settlement of income tax audits and changes in tax laws, as well as recurring factors including the geographic mix of income before taxes, state and local taxes and the effects of various global income tax strategies.

To the extent that the provision for income taxes increases/decreases by 1 percent of income from continuing operations before income taxes, consolidated net income would have decreased/improved by $12 million in 2022.

Valuation of Assets

The application of business combination and impairment accounting requires the use of significant estimates and assumptions. The acquisition method of accounting for business combinations requires us to estimate the fair value of assets acquired including separately identifiable intangible assets, liabilities assumed, and any noncontrolling interest in the acquiree to properly allocate purchase price consideration. Impairment testing for assets, other than goodwill, requires the allocation of cash flows to those assets or group of assets and if required, an estimate of fair value for the assets or group of assets. Our estimates are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable. These valuations require the use of management’s assumptions, which would not reflect unanticipated events and circumstances that may occur.

Valuation of Goodwill

We review goodwill for impairment annually and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable. We first assess qualitative factors in each of our reporting units that carry goodwill including relevant events and circumstances that affect the fair value of the reporting units to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. Judgment in the assessment of qualitative factors of impairment include entity specific factors, industry, market and other macroeconomic conditions, legal and regulatory actions, as well as other individual factors impacting each reporting unit such as loss of key personnel and overall financial performance. If we do not perform a qualitative assessment, or if the qualitative assessment indicates it is more likely than not that the fair value of a reporting unit is less than its carrying amount, we perform a quantitative test.

In the quantitative test, we compare the fair value of each reporting unit to its carrying amount. Estimating the fair value of a reporting unit is judgmental in nature and involves the use of significant estimates and assumptions. We estimate the fair value of our reporting units using the income approach. When circumstances warrant, we may also use a combination of the income approach and certain market approaches. Under the income approach, we estimate the fair value of a reporting unit based on the present value of estimated discounted future cash flows. The discounted cash flow methodology includes the use of projections, which require the use of significant estimates and assumptions specific to the reporting unit as well as those based on general economic conditions. Factors specific to each reporting unit include revenue growth rates, gross margins, discount rates, terminal value growth rates, capital expenditures projections, assumed tax rates and other assumptions deemed reasonable by management.

After performing the annual goodwill impairment qualitative analysis during the fourth quarter of 2022, the company determined it was not necessary to perform the quantitative goodwill impairment test. In 2021, as a result of the separation of Kyndryl and the segment changes that occurred immediately prior to the separation, we performed the quantitative test for all reporting units which resulted in no impairment as the estimated fair value of each reporting unit exceeded its carrying value.

Loss Contingencies

We are currently involved in various claims and legal proceedings. At least quarterly, we review the status of each significant matter and assess our potential financial exposure. If the potential loss from any claim or legal proceeding is considered probable and the amount can be reasonably estimated, we accrue a liability for the estimated loss. Significant judgment is required in both the determination of probability and the determination as to whether an exposure is reasonably estimable. Because of uncertainties related to these matters, accruals are based only on the best information available at the time. As additional information becomes available, we reassess the potential liability related to our pending claims and litigation, and may revise our estimates. These revisions in the estimates of the potential liabilities could have a material impact on our results of operations and financial position.

Financing Receivables Allowance for Credit Losses

The Financing business reviews its financing receivables portfolio on a regular basis in order to assess collectibility and records adjustments to the allowance for credit losses at least quarterly. A description of the methods used by management to estimate the amount of uncollectible receivables is included in note A, “Significant Accounting Policies.” Factors that could result in actual receivable losses that are materially different from the estimated reserve include significant changes in the economy, or a sudden change in the economic health of a client that represents a significant concentration in Financing’s receivables portfolio.

To the extent that actual collectibility differs from management’s estimates currently provided for by 10 percent, Financing’s segment pre-tax income and our income from continuing operations before income taxes would be higher or lower by an estimated $17 million depending upon whether the actual collectibility was better or worse, respectively, than the estimates.

Change in Accounting Estimate

In the fourth quarter of 2022, we completed our annual assessment of the useful lives of our property, plant and equipment. Due to advances in technology, we determined we should increase the estimated useful lives of our server and network equipment from five to six years for new assets and from three to four years for used assets. This change in accounting estimate will be effective beginning January 1, 2023 and applied on a prospective basis to the assets on our balance sheet as of December 31, 2022, as well as future asset purchases. Based on the carrying amount of server and network equipment included in property, plant and equipment-net in our Consolidated Balance Sheet as of December 31, 2022, we estimate this change to this existing asset class will increase income from continuing operations before income taxes for 2023 by over $200 million.

Currency Rate Fluctuations

Throughout 2022, there has been significant strengthening of the U.S. dollar (USD) as compared to most other currencies. Changes in the relative values of non-U.S. currencies to the USD affect our financial results and financial position. At December 31, 2022, currency changes resulted in assets and liabilities denominated in local currencies being translated into fewer dollars than at year-end 2021. We use financial hedging instruments to limit specific currency risks related to foreign currency-based transactions.

The combination of the rate, breadth and magnitude of movements in currency, and the fact that we do not hedge 100 percent of our currency exposures, resulted in a currency impact to our profit and cash flows in 2022. We execute a hedging program which defers, versus eliminates, the volatility of currency impacts on our financial results. During periods of sustained movements in currency, the marketplace and competition adjust to the changing rates over time.

We translate revenue, cost and expense in our non-U.S. operations at current exchange rates in the reported period. References to “adjusted for currency” or “constant currency” reflect adjustments based upon a simple mathematical formula. However, this constant currency methodology that we utilize to disclose this information does not incorporate any operational actions that management could take to mitigate fluctuating currency rates, such as updates to pricing and sourcing. Currency movements impacted our year-to-year revenue and earnings per share results in 2022. Based on the currency rate movements in 2022, total revenue increased 5.5 percent as reported and 11.6 percent at constant currency versus 2021. On an income from continuing operations before income taxes basis, these translation impacts mitigated by the net impact of hedging activities resulted in a theoretical maximum (assuming no pricing or sourcing actions) decrease of approximately $335 million in 2022 on an as-reported basis and a decrease of approximately $455 million on an operating (non-GAAP) basis. The same mathematical exercise resulted in an increase of approximately $70 million in 2021 on an as-reported basis and an increase of approximately $100 million on an operating (non-GAAP) basis. We view these amounts as a theoretical maximum impact to our as-reported financial results. Considering the operational responses mentioned above, movements of exchange rates, and the nature and timing of hedging instruments, it is difficult to predict future currency impacts on any particular period.

For non-U.S. subsidiaries and branches that operate in U.S. dollars or whose economic environment is highly inflationary, translation adjustments are reflected in results of operations. Generally, we manage currency risk in these entities by linking prices and contracts to U.S. dollars.

Market Risk

In the normal course of business, our financial position is routinely subject to a variety of risks, including the market risk associated with interest rate and currency movements on outstanding debt and non-U.S. dollar denominated assets and liabilities, and other risks such as collectibility of accounts receivable.

We regularly assess these risks and have established policies and business practices to protect against the adverse effects of these and other potential exposures. As a result, we do not anticipate any material losses from these risks.

Our debt, in support of the Financing business and the geographic breadth of our operations, contains an element of market risk from changes in interest and currency rates. We manage this risk, in part, through the use of a variety of financial instruments including derivatives, as described in note T, “Derivative Financial Instruments.”

To meet disclosure requirements, we perform a sensitivity analysis to determine the effects that market risk exposures may have on the fair values of our debt and other financial instruments.

The financial instruments that are included in the sensitivity analysis are comprised of our cash and cash equivalents, marketable securities, short-term and long-term loans, commercial financing and installment payment receivables, investments, long-term and short-term debt and derivative financial instruments. Our derivative financial instruments generally include interest rate swaps, foreign currency swaps and forward contracts.

To perform the sensitivity analysis, we assess the risk of loss in fair values from the effect of hypothetical changes in interest rates and foreign currency exchange rates on market-sensitive instruments. The market values for interest and foreign currency exchange risk are computed based on the present value of future cash flows as affected by the changes in rates that are attributable to the market risk being measured. The discount rates used for the present value computations were selected based on market interest and foreign currency exchange rates in effect at December 31, 2022 and 2021. The differences in this comparison are the hypothetical losses associated with each type of risk.

Information provided by the sensitivity analysis does not necessarily represent the actual changes in fair value that we would incur under normal market conditions because, due to practical limitations, all variables other than the specific market risk factor are held constant. In addition, the results of the model are constrained by the fact that certain items are specifically excluded from the analysis, while the financial instruments relating to the financing or hedging of those items are included by definition. Excluded items include short-term and long-term receivables from sales-type and direct financing leases, forecasted foreign currency cash flows and the company’s net investment in foreign operations. As a consequence, reported changes in the values of some of the financial instruments impacting the results of the sensitivity analysis are not matched with the offsetting changes in the values of the items that those instruments are designed to finance or hedge.

The results of the sensitivity analysis at December 31, 2022 and 2021, are as follows:

Interest Rate Risk

A hypothetical 10 percent adverse change in the levels of interest rates, with all other variables held constant, would result in a decrease in the fair value of our financial instruments of approximately $0.2 billion and $0.4 billion at December 31, 2022 and 2021, respectively. Changes in the relative sensitivity of the fair value of our financial instrument portfolio for these theoretical changes in the level of interest rates are primarily driven by changes in debt maturities, interest rate profile and amount.

Foreign Currency Exchange Rate Risk

A hypothetical 10 percent adverse change in the levels of foreign currency exchange rates relative to the U.S. dollar, with all other variables held constant, would result in a decrease in the fair value of our financial instruments of approximately $1.4 billion at December 31, 2022 and 2021. The theoretical changes are primarily driven by changes in foreign currency activities related to long-term debt and derivatives.

Financing Risks

See the "Description of Business" on page 15 for a discussion of the financing risks associated with the Financing business and management's actions to mitigate such risks.

Cybersecurity

While cybersecurity risk can never be completely eliminated, our approach draws on the depth and breadth of our global capabilities, both in terms of our offerings to clients and our internal approaches to risk management. We offer commercial security solutions that deliver capabilities in areas such as identity and access management, data security, application security, network security and endpoint security. These solutions include pervasive encryption, threat intelligence, analytics, cognitive and artificial intelligence, and forensic capabilities that analyze client security events, yielding insights about attacks, threats, and vulnerabilities facing the client. We also offer professional consulting and technical services solutions for security from assessment and incident response to deployment and resource augmentation. In addition, we offer managed and outsourced security solutions from multiple security operations centers around the world. Finally, security is embedded in a multitude of our products and offerings through secure engineering and operations, and by critical functions (e.g., encryption, access control) in servers, storage, software, services and other solutions.

From an enterprise perspective, we implement a multi-faceted risk-management approach based on the National Institute of Standards and Technology Cybersecurity Framework to identify and address cybersecurity risks. In addition, we have established policies and procedures that provide the foundation upon which IBM's infrastructure and data are managed. We regularly assess and adjust our technical controls and methods to identify and mitigate emerging cybersecurity risks. We use a layered approach with overlapping controls to defend against cybersecurity attacks and threats on networks, end-user devices, servers, applications, data and cloud solutions. We draw heavily on our own commercial security solutions and services to mitigate cybersecurity risks. We also have threat intelligence and security monitoring programs, as well as a global incident response process to respond to cybersecurity threats and attacks. In addition, we utilize a combination of online training, educational tools, videos and other awareness initiatives to foster a culture of security awareness and responsibility among our workforce.

FINANCING

Financing is a reportable segment that is measured as a stand-alone entity. Financing facilitates IBM clients' acquisition of information technology systems, software and services by providing financing solutions in the areas where the company has the expertise, while generating solid returns on equity.

Results of Operations

($ in millions)

For the year ended December 31:	2022	2021	Yr.-to-Yr. Percent Change
Revenue	$645	$774	(16.6)%
Pre-tax income	$340	$441	(22.9)%

Our Financing business is focused on IBM's products and services. Financing revenue decreased 16.6 percent (13 percent adjusted for currency) to $645 million compared to the prior year, primarily driven by the strategic actions taken in the prior year including selling certain client lease and loan financing receivables to third parties. While these strategic actions impact revenue and pre-tax income on a year-to-year basis, our repositioning of the Financing business has strengthened our liquidity position, improved the quality of our portfolio, and lowered our debt needs.

Financing pre-tax income decreased 22.9 percent to $340 million compared to the prior year and the pre-tax margin of 52.6 percent decreased 4.4 points year to year. The decrease in pre-tax income in 2022 was primarily driven by the strategic actions described above.

Financial Position

($ in millions)

At December 31:	2022	2021
Cash and cash equivalents	$ 699	$ 1,359
Client financing receivables		
Net investment in sales-type and direct financing leases (1)	4,047	3,396
Client loans	8,329	8,818
Total client financing receivables	$12,376	$12,215
Commercial financing receivables		
Held for investment	293	444
Held for sale	939	793
Other receivables	66	61
Total external receivables (2)	$13,674	$13,512
Intercompany financing receivables (3)(4)	602	778
Other assets(5)	781	1,231
Total assets	$15,757	$16,880
Intercompany payables (3)	$ 637	$ 467
Debt (6)	12,872	13,929
Other liabilities	814	937
Total liabilities	$14,323	$15,333
Total equity	$ 1,433	$ 1,547
Total liabilities and equity	$15,757	$16,880

(1) Includes deferred initial direct costs which are expensed in IBM's consolidated financial results.
(2) The difference between the decrease in total external receivables of $0.2 billion (from $13.5 billion in 2021 to $13.7 billion in 2022) and the $0.7 billion change in Financing segment's receivables disclosed in the free cash flow presentation on page 34 is primarily attributable to currency impacts.
(3) The entire amount is eliminated for purposes of IBM's consolidated financial results and therefore does not appear in the Consolidated Balance Sheet.
(4) These assets, along with all other financing assets in this table, are leveraged at the value in the table using Financing segment debt.
(5) Includes $0.4 billion of other intercompany assets in 2022 and $0.7 billion in 2021.
(6) Financing segment debt is primarily composed of intercompany loans.

At December 31, 2022, we continue to apply our rigorous credit policies. Approximately 73 percent of the total external portfolio was with investment-grade clients with no direct exposure to consumers, an increase of 6 points year to year and an increase of 1 point compared to September 30, 2022. This investment grade percentage is based on the credit ratings of the companies in the portfolio and reflects certain mitigating actions taken to reduce the risk to IBM.

We have a long-standing practice of taking mitigation actions, in certain circumstances, to transfer credit risk to third parties. These actions may include credit insurance, financial guarantees, nonrecourse secured borrowings, transfers of receivables recorded as true sales in accordance with accounting guidance or sales of equipment under operating lease. Sale of receivables arrangements are also utilized in the normal course of business as part of our cash and liquidity management.

The company has an existing agreement with a third-party investor to sell IBM short-term commercial financing receivables on a revolving basis. The company has expanded this agreement to other countries and geographies since commencement in the U.S. and Canada in 2020. In addition, the company enters into agreements with third-party financial institutions to sell certain of its client financing receivables, including both loan and lease receivables, for cash proceeds. In 2022, sales of client financing receivables were largely focused on credit mitigation. During 2021, sales of client financing receivables were utilized as part of the company's cash and liquidity management as well as for credit mitigation.

The following table presents the total amount of commercial and client financing receivables transferred:

($ in millions)

For the year ended December 31:	2022	2021
Commercial financing receivables		
Receivables transferred during the period	$9,029	$7,359
Receivables uncollected at end of period*	$1,561	$1,653
Client financing receivables		
Lease receivables	$ 15	$ 819
Loan receivables	2	2,224
Total client financing receivables transferred	$ 17	$3,043

* Of the total amount of commercial financing receivables sold and derecognized from the Consolidated Balance Sheet, the amounts presented remained uncollected from business partners as of December 31, 2022 and 2021.

For additional information relating to financing receivables refer to note L, "Financing Receivables." Refer to pages 26 to 27 for additional information related to Financing segment receivables, allowance for credit losses and debt.

Return on Equity Calculation

($ in millions)

At December 31:	2022	2021
Numerator		
Financing after-tax income (1) *	$ 279	$ 374
Denominator		
Average Financing equity (2) **	$1,389	$1,935
Financing return on equity (1)/(2)	20.1 %	19.3 %

* Calculated based upon an estimated tax rate principally based on Financing's geographic mix of earnings as IBM's provision for income taxes is determined on a consolidated basis.

** Average of the ending equity for Financing for the last five quarters.

Return on equity was 20.1 percent compared to 19.3 percent for the years ended December 31, 2022 and 2021, respectively. The increase was driven by a lower average equity balance, partially offset by a decrease in net income, which reflects the strategic actions taken in the prior year to reposition the Financing business.

Residual Value

The estimated residual value represents the estimated fair value of the equipment under lease at the end of the lease. The company estimates the future fair value of leased equipment by using historical models, analyzing the current market for new and used equipment and obtaining forward-looking product information such as marketing plans and technology innovations.

The company optimizes the recovery of residual values by extending lease arrangements with, or selling leased equipment to existing clients and periodically reassesses the realizable value of its lease residual values.

The following table presents the recorded amount of unguaranteed residual value for sales-type and direct financing leases at December 31, 2022 and 2021. In addition, the table presents the run out of when the unguaranteed residual value assigned to equipment on leases at December 31, 2022, is expected to be returned to the company. The unguaranteed residual value for operating leases at December 31, 2022 and 2021 was not material.

Unguaranteed Residual Value

($ in millions)

			Estimated Run Out of December 31, 2022 Balance			
	At December 31, 2021	At December 31, 2022	2023	2024	2025	2026 and Beyond
Sales-type and direct financing leases	$ 335	$ 422	$ 84	$ 68	$ 147	$ 123

Management Responsibility for Financial Information

Responsibility for the integrity and objectivity of the financial information presented in this Annual Report rests with IBM management. The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America, applying certain estimates and judgments as required.

IBM maintains an effective internal control structure. It consists, in part, of organizational arrangements with clearly defined lines of responsibility and delegation of authority, and comprehensive systems and control procedures. An important element of the control environment is an ongoing internal audit program. Our system also contains self-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified.

To assure the effective administration of internal controls, we carefully select and train our employees, develop and disseminate written policies and procedures, provide appropriate communication channels and foster an environment conducive to the effective functioning of controls. We believe that it is essential for the company to conduct its business affairs in accordance with the highest ethical standards, as set forth in the IBM Business Conduct Guidelines. These guidelines, translated into numerous languages, are distributed to employees throughout the world, and reemphasized through internal programs to assure that they are understood and followed.

The Audit Committee of the Board of Directors is composed solely of independent, non-management directors, and is responsible for recommending to the Board the independent registered public accounting firm to be retained for the coming year, subject to stockholder ratification. The Audit Committee meets regularly and privately with the independent registered public accounting firm, with the company's internal auditors, as well as with IBM management, to review accounting, auditing, internal control structure and financial reporting matters.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting of the company. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

The company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of internal control over financial reporting based on the criteria established in *Internal Control–Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management concluded that the company's internal control over financial reporting was effective as of December 31, 2022.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, is retained to audit IBM's Consolidated Financial Statements and the effectiveness of the internal control over financial reporting. Its accompanying report is based on audits conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States).

/s/ Arvind Krishna
Arvind Krishna
Chairman and Chief Executive Officer
February 28, 2023

/s/ James J. Kavanaugh
James J. Kavanaugh
Senior Vice President and Chief Financial Officer
February 28, 2023

Report of Independent Registered Public Accounting Firm
International Business Machines Corporation and Subsidiary Companies

To the Board of Directors and Stockholders of International Business Machines Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of International Business Machines Corporation and its subsidiaries (the “Company”) as of December 31, 2022 and 2021, and the related consolidated statements of income, of comprehensive income, of equity and of cash flows for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control Over Financial Reporting. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Income Taxes–Uncertain Tax Positions

As described in Notes A and H to the consolidated financial statements, the Company is subject to income taxes in the United States and numerous foreign jurisdictions. As disclosed by management, during the ordinary course of business there are many transactions and calculations for which the ultimate tax determination is uncertain. As a result, management recognizes tax liabilities based on estimates of whether additional taxes and interest will be due. As further described by management, these tax liabilities are recognized when, despite management's belief that the tax return positions are supportable, management believes that certain positions may not be fully sustained upon review by tax authorities. Management bases its assessment of the accruals for tax liabilities on many factors, including past experience and interpretations of tax law. This assessment relies on estimates and assumptions and may involve a series of complex judgments about future events. As of December 31, 2022, unrecognized tax benefits were $8.7 billion.

The principal considerations for our determination that performing procedures relating to uncertain tax positions is a critical audit matter are the significant judgment by management when estimating the uncertain tax positions, including applying complex tax laws, and a high degree of estimation uncertainty based on potential for significant adjustments as a result of audits by tax authorities or other forms of tax settlement. This in turn led to a high degree of auditor judgment, effort, and subjectivity in performing procedures to evaluate management's timely identification and measurement of uncertain tax positions. Also, the evaluation of audit evidence available to support the uncertain tax positions is complex and required significant auditor judgment as the nature of the evidence is often inherently subjective, and the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the identification and recognition of the uncertain tax positions, and controls addressing completeness of the uncertain tax positions, as well as controls over measurement of the amount recorded. These procedures also included, among others (i) testing the information used in the calculation of the uncertain tax positions, including intercompany agreements and international, federal, and state filing positions; (ii) testing the calculation of the uncertain tax positions by jurisdiction, including management's assessment of the technical merits of tax positions and estimates of the amount of tax benefit expected to be sustained; (iii) testing the completeness of management's assessment of both the identification of uncertain tax positions and possible outcomes of each uncertain tax position; and (iv) evaluating the status and results of income tax audits pending in various tax jurisdictions. Professionals with specialized skill and knowledge were used to assist in the evaluation of the completeness and measurement of the Company's uncertain tax positions, including evaluating the reasonableness of management's assessment of whether tax positions are more-likely-than-not of being sustained and the amount of potential benefit to be realized.

/s/ PricewaterhouseCoopers LLP
PricewaterhouseCoopers LLP
New York, New York
February 28, 2023

We, or firms that we have ultimately acquired, have served as the Company's auditor since 1923. For the period from 1923 to 1958, the Company was audited by firms that a predecessor firm to PricewaterhouseCoopers LLP ultimately acquired.

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Consolidated Income Statement
International Business Machines Corporation and Subsidiary Companies

($ in millions except per share amounts)

For the year ended December 31:	Notes	2022	2021	2020
Revenue				
Services		$30,206	$29,225	$27,626
Sales		29,673	27,346	26,569
Financing		651	780	984
Total revenue	D	60,530	57,350	55,179
Cost				
Services		21,062	19,147	17,689
Sales		6,374	6,184	6,048
Financing		406	534	577
Total cost		27,842	25,865	24,314
Gross profit		32,687	31,486	30,865
Expense and other (income)				
Selling, general and administrative		18,609	18,745	20,561
Research, development and engineering	G	6,567	6,488	6,262
Intellectual property and custom development income		(663)	(612)	(620)
Other (income) and expense	A	5,803	873	802
Interest expense	P&T	1,216	1,155	1,288
Total expense and other (income)		31,531	26,649	28,293
Income from continuing operations before income taxes		1,156	4,837	2,572
Provision for/(benefit from) income taxes	H	(626)	124	(1,360)
Income from continuing operations		1,783	4,712	3,932
Income/(loss) from discontinued operations, net of tax	C	(143)	1,030	1,658
Net income		$ 1,639 *	$ 5,743	$ 5,590
Earnings/(loss) per share of common stock				
Assuming dilution				
Continuing operations	I	$ 1.95	$ 5.21	$ 4.38
Discontinued operations	I	(0.16)	1.14	1.85
Total	I	$ 1.80	$ 6.35	$ 6.23
Basic				
Continuing operations	I	$ 1.97	$ 5.26	$ 4.42
Discontinued operations	I	(0.16)	1.15	1.86
Total	I	$ 1.82	$ 6.41	$ 6.28
Weighted-average number of common shares outstanding				
Assuming dilution		912,269,062	904,641,001	896,563,971
Basic		902,664,190	895,990,771	890,348,679

* Includes the impact of a one-time, non-cash pension settlement charge. Refer to note V, “Retirement-Related Benefits,” for additional information.

Amounts may not add due to rounding.

The accompanying notes are an integral part of the financial statements.

Consolidated Statement of Comprehensive Income
International Business Machines Corporation and Subsidiary Companies

($ in millions)

For the year ended December 31:	Notes	2022	2021 *	2020 *
Net income		$ 1,639	$ 5,743	$ 5,590
Other comprehensive income/(loss), before tax				
Foreign currency translation adjustments	S	176	987	(1,500)
Net changes related to available-for-sale securities	S			
Unrealized gains/(losses) arising during the period		(1)	0	(1)
Reclassification of (gains)/losses to net income		—	—	—
Total net changes related to available-for-sale securities		(1)	0	(1)
Unrealized gains/(losses) on cash flow hedges	S			
Unrealized gains/(losses) arising during the period		241	344	(349)
Reclassification of (gains)/losses to net income		(400)	243	(21)
Total unrealized gains/(losses) on cash flow hedges		(158)	587	(370)
Retirement-related benefit plans	S			
Prior service costs/(credits)		463	(51)	(37)
Net (losses)/gains arising during the period		878	2,433	(1,678)
Curtailments and settlements		5,970	94	52
Amortization of prior service (credits)/costs		12	9	13
Amortization of net (gains)/losses		1,596	2,484	2,314
Total retirement-related benefit plans		8,919	4,969	664
Other comprehensive income/(loss), before tax	S	8,936	6,542	(1,206)
Income tax (expense)/benefit related to items of other comprehensive income	S	(2,442)	(1,703)	466
Other comprehensive income/(loss)	S	6,494	4,839	(740)
Total comprehensive income		$ 8,134	$10,582	$ 4,850

* Amounts presented have not been recast to exclude discontinued operations.

Amounts may not add due to rounding.

The accompanying notes are an integral part of the financial statements.

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Consolidated Balance Sheet
International Business Machines Corporation and Subsidiary Companies

($ in millions except per share amounts)

At December 31:	Notes	2022	2021
Assets			
Current assets			
Cash and cash equivalents		$ 7,886	$ 6,650
Restricted cash		103	307
Marketable securities	J	852	600
Notes and accounts receivable—trade (net of allowances of $233 in 2022 and $218 in 2021)		6,541	6,754
Short-term financing receivables	L		
Held for investment (net of allowances of $145 in 2022 and $176 in 2021)		6,851	7,221
Held for sale		939	793
Other accounts receivable (net of allowances of $89 in 2022 and $24 in 2021)		817	1,002
Inventory	K	1,552	1,649
Deferred costs	D	967	1,097
Prepaid expenses and other current assets		2,611	3,466
Total current assets		29,118	29,539
Property, plant and equipment	M	18,695	20,085
Less: Accumulated depreciation	M	13,361	14,390
Property, plant and equipment—net	M	5,334	5,694
Operating right-of-use assets—net	N	2,878	3,222
Long-term financing receivables (net of allowances of $28 in 2022 and $25 in 2021)	L	5,806	5,425
Prepaid pension assets	V	8,236	9,850
Deferred costs	D	866	924
Deferred taxes	H	6,256	7,370
Goodwill	O	55,949	55,643
Intangible assets—net	O	11,184	12,511
Investments and sundry assets		1,617	1,823
Total assets		$ 127,243	$ 132,001
Liabilities and equity			
Current liabilities			
Taxes	H	$ 2,196	$ 2,289
Short-term debt	J&P	4,760	6,787
Accounts payable		4,051	3,955
Compensation and benefits		3,481	3,204
Deferred income		12,032	12,518
Operating lease liabilities	N	874	974
Other accrued expenses and liabilities		4,111	3,892
Total current liabilities		31,505	33,619
Long-term debt	J&P	46,189	44,917
Retirement and nonpension postretirement benefit obligations	V	9,596	14,435
Deferred income		3,499	3,577
Operating lease liabilities	N	2,190	2,462
Other liabilities	Q	12,243	13,996
Total liabilities		105,222	113,005
Commitments and Contingencies	R		
Equity	S		
IBM stockholders' equity			
Common stock, par value $.20 per share, and additional paid-in capital		58,343	57,319
Shares authorized: 4,687,500,000			
Shares issued (2022—2,257,116,920; 2021—2,248,577,848)			
Retained earnings		149,825	154,209
Treasury stock, at cost (shares: 2022—1,351,024,943; 2021—1,350,509,249)		(169,484)	(169,392)
Accumulated other comprehensive income/(loss)		(16,740)	(23,234)
Total IBM stockholders' equity		21,944	18,901
Noncontrolling interests	A	77	95
Total equity		22,021	18,996
Total liabilities and equity		$ 127,243	$ 132,001

Amounts may not add due to rounding.

The accompanying notes are an integral part of the financial statements.

Consolidated Statement of Cash Flows
International Business Machines Corporation and Subsidiary Companies

($ in millions)

For the year ended December 31:	2022	2021	2020
Cash flows from operating activities			
Net income	$ 1,639	$ 5,743	$ 5,590
Adjustments to reconcile net income to cash provided by operating activities			
Pension settlement charge	5,894	—	—
Depreciation	2,407	3,888	4,227
Amortization of intangibles	2,395	2,529	2,468
Stock-based compensation	987	982	937
Deferred taxes	(2,726)	(2,001)	(3,203)
Net (gain)/loss on asset sales and other	(122)	(307)	(70)
Change in operating assets and liabilities, net of acquisitions/divestitures			
Receivables (including financing receivables)	(539)	1,372	5,297
Retirement related	331	1,038	936
Inventory	71	138	(209)
Other assets/other liabilities	(115)	(671)	2,087
Accounts payable	213	85	138
Net cash provided by operating activities	10,435	12,796	18,197
Cash flows from investing activities			
Payments for property, plant and equipment	(1,346)	(2,062)	(2,618)
Proceeds from disposition of property, plant and equipment	111	387	188
Investment in software	(626)	(706)	(612)
Purchases of marketable securities and other investments	(5,930)	(3,561)	(6,246)
Proceeds from disposition of marketable securities and other investments	4,665	3,147	5,618
Non-operating finance receivables—net	0	0	475
Acquisition of businesses, net of cash acquired	(2,348)	(3,293)	(336)
Divestiture of businesses, net of cash transferred	1,272	114	503
Net cash provided by/(used in) investing activities	(4,202)	(5,975)	(3,028)
Cash flows from financing activities			
Proceeds from new debt	7,804	522	10,504
Payments to settle debt	(6,800)	(8,597)	(13,365)
Short-term borrowings/(repayments) less than 90 days—net	217	(40)	(853)
Common stock repurchases for tax withholdings	(407)	(319)	(302)
Financing—other	176	70	92
Distribution from Kyndryl	—	879 *	—
Cash dividends paid	(5,948)	(5,869)	(5,797)
Net cash provided by/(used in) financing activities	(4,958)	(13,354)	(9,721)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(244)	(185)	(87)
Net change in cash, cash equivalents and restricted cash	1,032	(6,718)	5,361
Cash, cash equivalents and restricted cash at January 1	6,957	13,675	8,314
Cash, cash equivalents and restricted cash at December 31	$ 7,988	$ 6,957	$ 13,675
Supplemental data			
Income taxes paid—net of refunds received	$ 1,865	$ 2,103	$ 2,253
Interest paid on debt	$ 1,401	$ 1,512	$ 1,830

* Represents $879 million net cash proceeds from Kyndryl dividend payments to IBM, funded from the proceeds of $2.9 billion of debt issued and retained by Kyndryl.

Cash flows above are presented on an IBM consolidated basis. Refer to note C, “Separation of Kyndryl,” for additional information related to cash flows from Kyndryl discontinued operations.

Amounts may not add due to rounding.

The accompanying notes are an integral part of the financial statements.

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Consolidated Statement of Equity
International Business Machines Corporation and Subsidiary Companies

($ in millions except per share amounts)

	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
2020							
Equity, January 1, 2020	$ 55,895	$162,954	$(169,413)	$ (28,597)	$ 20,841	$ 144	$20,985
Cumulative effect of change in accounting principle*		(66)			(66)		(66)
Net income plus other comprehensive income/(loss)							
Net income		5,590			5,590		5,590
Other comprehensive income/(loss)				(740)	(740)		(740)
Total comprehensive income/(loss)					$ 4,850		$ 4,850
Cash dividends paid—common stock ($6.51 per share)		(5,797)			(5,797)		(5,797)
Common stock issued under employee plans (4,972,028 shares)	661				661		661
Purchases (2,363,966 shares) and sales (2,934,907 shares) of treasury stock under employee plans—net		36	74		110		110
Changes in noncontrolling interests						(15)	(15)
Equity, December 31, 2020	$ 56,556	$162,717	$(169,339)	$ (29,337)	$ 20,597	$ 129	$20,727

* Reflects the adoption of the FASB guidance on current expected credit losses.

Amounts may not add due to rounding.

The accompanying notes are an integral part of the financial statements.

($ in millions except per share amounts)

	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
2021							
Equity, January 1, 2021	$ 56,556	$162,717	$(169,339)	$ (29,337)	$ 20,597	$ 129	$20,727
Net income plus other comprehensive income/(loss)							
Net income		5,743			5,743		5,743
Other comprehensive income/(loss)				4,839	4,839		4,839
Total comprehensive income/(loss)					$ 10,582		$10,582
Cash dividends paid—common stock ($6.55 per share)		(5,869)			(5,869)		(5,869)
Common stock issued under employee plans (5,608,845 shares)	762				762		762
Purchases (2,286,912 shares) and sales (2,093,243 shares) of		22	(53)		(31)		(31)

treasury stock under employee plans—net							
Separation of Kyndryl*		(8,404)		1,264	(7,140)	(62)	(7,203)
Changes in noncontrolling interests						28	28
Equity, December 31, 2021	$ 57,319	$ 154,209	$ (169,392)	$ (23,234)	$ 18,901	$ 95	$18,996

* Refer to note C, “Separation of Kyndryl,” for additional information.

Amounts may not add due to rounding.

The accompanying notes are an integral part of the financial statements.

Consolidated Statement of Equity
International Business Machines Corporation and Subsidiary Companies

($ in millions except per share amounts)

	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
2022							
Equity, January 1, 2022	$ 57,319	$154,209	$(169,392)	$ (23,234)	$ 18,901	$ 95	$18,996
Net income plus other comprehensive income/(loss)							
Net income		1,639			1,639		1,639
Other comprehensive income/(loss)				6,494	6,494		6,494
Total comprehensive income/(loss)					$ 8,134		$ 8,134
Cash dividends paid—common stock ($6.59 per share)		(5,948)			(5,948)		(5,948)
Common stock issued under employee plans (8,539,072 shares)	962				962		962
Purchases (3,027,994 shares) and sales (2,512,300 shares) of treasury stock under employee plans—net		(12)	(92)		(104)		(104)
Other equity	63	(63)			0		0
Changes in noncontrolling interests						(18)	(18)
Equity, December 31, 2022	$ 58,343	$ 149,825	$ (169,484)	$ (16,740)	$ 21,944	$ 77	$22,021

Amounts may not add due to rounding.

The accompanying notes are an integral part of the financial statements.

NOTE A. SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying Consolidated Financial Statements and footnotes of the International Business Machines Corporation (IBM or the company) have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP).

Within the financial statements and tables presented, certain columns and rows may not add due to the use of rounded numbers for disclosure purposes. Percentages presented are calculated from the underlying whole-dollar amounts. Certain prior-year amounts have been reclassified to conform to the current year presentation. This is annotated where applicable. In addition, in the first quarter of 2022, an adjustment of $63 million was recorded between common stock and retained earnings related to the issuance of treasury stock in connection with certain previously issued stock-based compensation awards and is reflected in the Consolidated Balance Sheet and Consolidated Statement of Equity at December 31, 2022.

On November 3, 2021, the company completed the separation of its managed infrastructure services unit into a new public company with the distribution of 80.1 percent of the outstanding common stock of Kyndryl Holdings, Inc. (Kyndryl) to IBM stockholders on a pro rata basis. To effect the separation, IBM stockholders received one share of Kyndryl common stock for every five shares of IBM common stock held at the close of business on October 25, 2021, the record date for the distribution. The company retained 19.9 percent of the shares of Kyndryl common stock immediately following the separation. During 2022, the company fully disposed of its retained interest in Kyndryl common stock pursuant to exchange agreements with a third-party financial institution, which were completed within twelve months of separation. Refer to note J, “Financial Assets & Liabilities,” for additional information. At December 31, 2022, the company no longer held an ownership interest in Kyndryl.

The accounting requirements for reporting the separation of Kyndryl as a discontinued operation were met when the separation was completed. Accordingly, the historical results of Kyndryl are presented as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented. Refer to note C, “Separation of Kyndryl,” for additional information.

In the first quarter of 2022, the company realigned its management structure to reflect the planned divestiture of its healthcare software assets which was completed in the second quarter of 2022. This change impacted the company’s Software segment and Other–divested businesses category, but did not impact the company’s Consolidated Financial Statements. Refer to note E, “Segments,” for additional information on the company’s reportable segments. The segments presented in this Annual Report are reported on a comparable basis for all periods.

In September 2022, the IBM Qualified Personal Pension Plan (Qualified PPP) purchased two separate nonparticipating single premium group annuity contracts from The Prudential Insurance Company of America and Metropolitan Life Insurance Company (collectively, the Insurers) and irrevocably transferred to the Insurers approximately $16 billion of the Qualified PPP’s defined benefit pension obligations and related plan assets, thereby reducing the company’s pension obligations and assets by the same amount. The group annuity contracts were purchased using assets of the Qualified PPP and no additional funding contribution was required from the company. As a result of this transaction the company recognized a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022, primarily related to the accelerated recognition of accumulated actuarial losses of the Qualified PPP. Refer to note V, “Retirement-Related Benefits,” for additional information.

The company reported a benefit from income taxes of $626 million for the year ended December 31, 2022. This tax benefit was primarily due to the transfer of a portion of the Qualified PPP’s defined benefit pension obligations and related plan assets, as described above. The benefit from income taxes for the year ended December 31, 2020 was primarily due to the tax impacts of an intra-entity sale of certain of the company’s intellectual property. Refer to note H, “Taxes,” for additional information.

Noncontrolling interest amounts of $20 million, $19 million and $13 million, net of tax, for the years ended December 31, 2022, 2021 and 2020, respectively, are included as a reduction within other (income) and expense in the Consolidated Income Statement.

Principles of Consolidation

The Consolidated Financial Statements include the accounts of IBM and its controlled subsidiaries, which are primarily majority owned. Any noncontrolling interest in the equity of a subsidiary is reported as a component of total equity in the Consolidated Balance Sheet. Net income and losses attributable to the noncontrolling interest is reported as described above in the Consolidated Income Statement. The accounts of variable interest entities (VIEs) are included in the Consolidated Financial Statements, if required. Investments in business entities in which the company does not have control but has the ability to exercise significant influence over operating and financial policies, are accounted for using the equity method and the company’s proportionate share of income or loss is recorded in other (income) and expense.

The accounting policy for other investments in equity securities is described within the “Marketable Securities” section of this note. Equity investments in non-publicly traded entities lacking controlling financial interest or significant influence are primarily measured at cost, absent other indicators of fair value, net of impairment, if any. All intercompany transactions and accounts have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect amounts that are reported in the Consolidated Financial Statements and accompanying disclosures. Estimates are made for the following, among others: revenue, costs to complete service contracts, income taxes, pension assumptions, valuation of assets including goodwill and intangible assets, loss contingencies, allowance for credit losses and other matters. These estimates are based on management's best knowledge of current events, historical experience, actions that the company may undertake in the future and on various other assumptions that are believed to be reasonable under the circumstances. Actual results may be different from these estimates.

In the fourth quarter of 2022, the company completed its annual assessment of the useful lives of its information technology equipment. Due to advances in technology, the company determined it should increase the estimated useful lives of its server and network equipment from five to six years for new assets and from three to four years for used assets. This change in accounting estimate will be effective beginning January 1, 2023 and applied on a prospective basis to these assets on the company's balance sheet as of December 31, 2022, as well as future asset purchases. Based on the carrying amount of server and network equipment included in property, plant and equipment-net in the company's Consolidated Balance Sheet as of December 31, 2022, the company estimates this change will increase income from continuing operations before income taxes for 2023 by over $200 million.

Revenue

The company accounts for a contract with a client when it has written approval, the contract is committed, the rights of the parties, including payment terms, are identified, the contract has commercial substance and consideration is probable of collection.

Revenue is recognized when, or as, control of a promised product or service transfers to a client, in an amount that reflects the consideration to which the company expects to be entitled in exchange for transferring those products or services. If the consideration promised in a contract includes a variable amount, the company estimates the amount to which it expects to be entitled using either the expected value or most likely amount method. The company's contracts may include terms that could cause variability in the transaction price, including, for example, rebates, volume discounts, service-level penalties, and performance bonuses or other forms of contingent revenue.

The company only includes estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. The company may not be able to reliably estimate contingent revenue in certain long-term arrangements due to uncertainties that are not expected to be resolved for a long period of time or when the company's experience with similar types of contracts is limited. The company's arrangements infrequently include contingent revenue. Changes in estimates of variable consideration are included in note D, "Revenue Recognition."

The company's standard billing terms are that payment is due upon receipt of invoice, payable within 30 days. Invoices are generally issued as control transfers and/or as services are rendered. Additionally, in determining the transaction price, the company adjusts the promised amount of consideration for the effects of the time value of money if the billing terms are not standard and the timing of payments agreed to by the parties to the contract provide the client or the company with a significant benefit of financing, in which case the contract contains a significant financing component. As a practical expedient, the company does not account for significant financing components if the period between when the company transfers the promised product or service to the client and when the client pays for that product or service will be one year or less. Most arrangements that contain a financing component are financed through the company's Financing business and include explicit financing terms.

The company may include subcontractor services or third-party vendor equipment or software in certain integrated services arrangements. In these types of arrangements, revenue from sales of third-party vendor products or services is recorded net of costs when the company is acting as an agent between the client and the vendor, and gross when the company is the principal for the transaction. To determine whether the company is an agent or principal, the company considers whether it obtains control of the products or services before they are transferred to the customer. In making this evaluation, several factors are considered, most notably whether the company has primary responsibility for fulfillment to the client, as well as inventory risk and pricing discretion.

The company recognizes revenue on sales to solution providers, resellers and distributors (herein referred to as resellers) when the reseller has economic substance apart from the company and the reseller is considered the principal for the transaction with the end-user client.

The company reports revenue net of any revenue-based taxes assessed by governmental authorities that are imposed on and concurrent with specific revenue-producing transactions.

In addition to the aforementioned general policies, the following are the specific revenue recognition policies for arrangements with multiple performance obligations and for each major category of revenue.

Arrangements with Multiple Performance Obligations

The company's global capabilities as a hybrid cloud platform and AI company include services, software, hardware and related financing. The company enters into revenue arrangements that may consist of any combination of these products and services based on the needs of its clients.

The company continues to develop new products and offerings and their associated consumption and delivery methods, including the use of cloud and as-a-Service models. These are not separate businesses; they are offerings across the segments that address market opportunities in areas such as analytics, data, cloud, security and sustainability. Revenue from these offerings follows the specific revenue recognition policies for arrangements with multiple performance obligations and for each major category of revenue, depending on the type of offering, which are comprised of services, software and/or hardware.

To the extent that a product or service in multiple performance obligation arrangements is subject to other specific accounting guidance, such as leasing guidance, that product or service is accounted for in accordance with such specific guidance. For all other products or services in these arrangements, the company determines if the products or services are distinct and allocates the consideration to each distinct performance obligation on a relative standalone selling price basis.

When products and services are not distinct, the company determines an appropriate measure of progress based on the nature of its overall promise for the single performance obligation.

The revenue policies in the Services, Hardware and/or Software sections below are applied to each performance obligation, as applicable.

Services

The company's primary services offerings include consulting services, including business transformation; technology consulting and application operations including the design and development of complex IT environments to a client's specifications (e.g., design and build); cloud services; business process outsourcing; and infrastructure support. Many of these services can be delivered entirely or partially through cloud or as-a-Service delivery models. The company's services are provided on a time-and-material basis, as a fixed-price contract or as a fixed-price per measure of output contract and the contract terms generally range from less than one year to 5 years.

In services arrangements, the company typically satisfies the performance obligation and recognizes revenue over time. In design and build arrangements, the performance obligation is satisfied over time either because the client controls the asset as it is created (e.g., when the asset is built at the customer site) or because the company's performance does not create an asset with an alternative use and the company has an enforceable right to payment plus a reasonable profit for performance completed to date. In most other services arrangements, the performance obligation is satisfied over time because the client simultaneously receives and consumes the benefits provided as the company performs the services.

Revenue from time-and-material contracts is recognized on an output basis as labor hours are delivered and/or direct expenses are incurred. Revenue from as-a-Service type contracts, such as Infrastructure-as-a-Service, is recognized either on a straight-line basis or on a usage basis, depending on the terms of the arrangement (such as whether the company is standing ready to perform or whether the contract has usage-based metrics). If an as-a-Service contract includes setup activities, those promises in the arrangement are evaluated to determine if they are distinct.

In areas such as application management, business process outsourcing and other cloud-based services arrangements, the company determines whether the services performed during the initial phases of the arrangement, such as setup activities, are distinct. In most cases, the arrangement is a single performance obligation comprised of a series of distinct services that are substantially the same and that have the same pattern of transfer (i.e., distinct days of service). The company applies a measure of progress (typically time-based) to any fixed consideration and allocates variable consideration to the distinct periods of service based on usage. As a result, revenue is generally recognized over the period the services are provided on a usage basis. This results in revenue recognition that corresponds with the value to the client of the services transferred to date relative to the remaining services promised.

Revenue related to maintenance and technology lifecycle support and extended warranty is recognized on a straight-line basis over the period of performance because the company is standing ready to provide services.

In design and build contracts, revenue is recognized based on progress toward completion of the performance obligation using a cost-to-cost measure of progress. Revenue is recognized based on the labor costs incurred to date as a percentage of the total estimated labor costs to fulfill the contract. Due to the nature of the work performed in these arrangements, the estimation of cost at completion is complex, subject to many variables and requires significant judgment. Key factors reviewed by the company to estimate costs to complete each contract are future labor and product costs and expected productivity efficiencies. Changes in original estimates are reflected in revenue on a cumulative catch-up basis in the period in which the circumstances that gave rise to the revision become

known by the company. Refer to note D, “Revenue Recognition,” for the amount of revenue recognized in the reporting period on a cumulative catch-up basis (i.e., from performance obligations satisfied, or partially satisfied, in previous periods).

The company performs ongoing profitability analyses of its design and build services contracts accounted for using a cost-to-cost measure of progress in order to determine whether the latest estimates of revenues, costs and profits require updating. If at any time these estimates indicate that the contract will be unprofitable, the entire estimated loss for the remainder of the contract is recorded immediately. For other types of services contracts, any losses are recorded as incurred.

In some services contracts, the company bills the client prior to recognizing revenue from performing the services. Deferred income of $3,241 million and $3,460 million at December 31, 2022 and 2021, respectively, is included in the Consolidated Balance Sheet. In other services contracts, the company performs the services prior to billing the client. When the company performs services prior to billing the client in design and build contracts, the right to consideration is typically subject to milestone completion or client acceptance and the unbilled accounts receivable is classified as a contract asset. At December 31, 2022 and 2021, contract assets for services contracts of $426 million and $430 million, respectively, are included in prepaid expenses and other current assets in the Consolidated Balance Sheet. The remaining amount of unbilled accounts receivable of $788 million and $723 million at December 31, 2022 and 2021, respectively, is included in notes and accounts receivable–trade in the Consolidated Balance Sheet.

Billings usually occur in the month after the company performs the services or in accordance with specific contractual provisions.

Hardware

The company’s hardware offerings include the sale or lease of Hybrid Infrastructure solutions including zSystems as well as Distributed Infrastructure solutions such as Power and storage solutions. The capabilities of these products can also be delivered through as-a-Service or cloud delivery models, such as Infrastructure-as-a-Service and Storage-as-a-Service. The company also offers installation services for its more complex hardware products. Hardware offerings are often sold with distinct maintenance services, described in the Services section above.

Revenue from hardware sales is recognized when control has transferred to the customer which typically occurs when the hardware has been shipped to the client, risk of loss has transferred to the client and the company has a present right to payment for the hardware. In limited circumstances when a hardware sale includes client acceptance provisions, revenue is recognized either when client acceptance has been obtained, client acceptance provisions have lapsed, or the company has objective evidence that the criteria specified in the client acceptance provisions have been satisfied. Revenue from hardware sales-type leases is recognized at the beginning of the lease term. Revenue from rentals and operating leases is recognized on a straight-line basis over the term of the rental or lease.

Revenue from as-a-Service arrangements is recognized either on a straight-line basis or on a usage basis as described in the Services section above. Installation services are accounted for as distinct performance obligations with revenue recognized as the services are performed. Shipping and handling activities that occur after the client has obtained control of a product are accounted for as an activity to fulfill the promise to transfer the product rather than as an additional promised service and, therefore, no revenue is deferred and recognized over the shipping period.

Software

The company’s software offerings include hybrid platform software solutions, which contain many of the company’s strategic areas including Red Hat, automation, data and AI, security and sustainability; transaction processing, which primarily supports mission-critical systems for clients; and distributed infrastructure software, which provides operating systems for zSystems and Power Systems hardware. These offerings include proprietary software and open-source software, and many can be delivered entirely or partially through as-a-Service or cloud delivery models, while others are delivered as on-premise software licenses.

Revenue from proprietary perpetual (one-time charge) license software is recognized at a point in time at the inception of the arrangement when control transfers to the client, if the software license is distinct from the post-contract support (PCS) offered by the company.

Revenue from proprietary term license software is recognized at a point in time for the committed term of the contract, unless consideration depends on client usage, in which case revenue is recognized when the usage occurs.

Proprietary term licenses often have a one-month contract term due to client termination rights, in which case, revenue would be recognized in that month for both the license and PCS. Clients may contract to convert their existing IBM term license software into perpetual license software plus PCS. When proprietary term license software is converted to perpetual license software, the consideration becomes fixed with no cancellability and, therefore, revenue for the perpetual license is recognized upon conversion, consistent with the accounting for other perpetual licenses, as described above. PCS revenue is recognized as described below.

The company also has open-source software offerings. Since open-source software is offered under an open-source licensing model and therefore, the license is available for free, the standalone selling price is zero. As such, when the license is sold with PCS or other products and services, no consideration is allocated to the license when it is a distinct performance obligation and therefore no revenue is recognized when control of the license transfers to the client. Revenue is recognized over the PCS period. In certain cases, open-source software is bundled with proprietary software and, if the open-source software is not considered distinct, the software bundle (e.g., Cloud Pak) is accounted for under a proprietary software model. Cloud Paks can be sold either as perpetual or committed-term software licenses, both of which are described above.

Revenue from PCS is recognized over the contract term on a straight-line basis because the company is providing a service of standing ready to provide support, when-and-if needed, and is providing unspecified software upgrades on a when-and-if available basis over the contract term.

Revenue from software hosting or Software-as-a-Service (SaaS) arrangements is recognized either on a straight-line basis or on a usage basis as described in the Services section above. In software hosting arrangements, the rights provided to the client (e.g., ownership of a license, contract termination provisions and the feasibility of the client to operate the software) are considered in determining whether the arrangement includes a license. In arrangements that include a software license, the associated revenue is recognized in accordance with the software license recognition policy above rather than over time as a service.

Financing

Financing income attributable to sales-type leases, direct financing leases and loans is recognized on the accrual basis using the effective interest method. Operating lease income is recognized on a straight-line basis over the term of the lease.

Standalone Selling Price

The company allocates the transaction price to each performance obligation on a relative standalone selling price basis. The standalone selling price (SSP) is the price at which the company would sell a promised product or service separately to a client. In most cases, the company is able to establish SSP based on the observable prices of products or services sold separately in comparable circumstances to similar clients. The company typically establishes SSP ranges for its products and services which are reassessed on a periodic basis or when facts and circumstances change.

In certain instances, the company may not be able to establish a SSP range based on observable prices, and as a result, the company estimates SSP. The company estimates SSP by considering multiple factors including, but not limited to, overall market conditions, including geographic or regional specific factors, internal costs, profit objectives and pricing practices. Additionally, in certain circumstances, the company may estimate SSP for a product or service by applying the residual approach. Estimating SSP is a formal process that includes review and approval by the company's management.

Services Costs

Recurring operating costs for services contracts are recognized as incurred. For fixed-price design and build contracts, the costs of external hardware and software accounted for under the cost-to-cost measure of progress are deferred and recognized based on the labor costs incurred to date (i.e., the measure of progress), as a percentage of the total estimated labor costs to fulfill the contract as control transfers over time for these performance obligations. Certain eligible, nonrecurring costs (i.e., setup costs) incurred in the initial phases of business process outsourcing contracts and other cloud-based services contracts, including Software-as-a-Service arrangements, are capitalized when the costs relate directly to the contract, the costs generate or enhance resources of the company that will be used in satisfying the performance obligation in the future, and the costs are expected to be recovered. These costs consist of transition and setup costs related to the provisioning, configuring, implementation and training and other deferred fulfillment costs, including, for example, prepaid assets used in services contracts (i.e., prepaid software or prepaid maintenance). Capitalized costs are amortized on a straight-line basis over the expected period of benefit, which includes anticipated contract renewals or extensions, consistent with the transfer to the client of the services to which the asset relates. Additionally, fixed assets associated with these contracts are capitalized and depreciated on a straight-line basis over the expected useful life of the asset. If an asset is contract specific, then the depreciation period is the shorter of the useful life of the asset or the contract term. Amounts paid to clients in excess of the fair value of acquired assets used in business process outsourcing arrangements are deferred and amortized on a straight-line basis as a reduction of revenue over the expected period of benefit. The company performs periodic reviews to assess the recoverability of deferred contract transition and setup costs. If the carrying amount is deemed not recoverable, an impairment loss is recognized. Refer to note D, "Revenue Recognition," for the amount of deferred costs to fulfill a contract at December 31, 2022 and 2021.

In situations in which a business process outsourcing or other cloud-based services contract is terminated, the terms of the contract may require the client to reimburse the company for the recovery of unbilled accounts receivable, unamortized deferred contract costs and additional costs incurred by the company to transition the services.

Software Costs

Costs that are related to the conceptual formulation and design of licensed software programs are expensed as incurred to research, development and engineering expense; costs that are incurred to produce the finished product after technological feasibility has been established are capitalized as an intangible asset. Capitalized amounts are amortized on a straight-line basis over periods ranging up to three years and are recorded in software cost within cost of sales. The company performs periodic reviews to ensure that unamortized program costs remain recoverable from future revenue. Costs to support or service licensed programs are charged to software cost within cost of sales as incurred.

The company capitalizes certain costs that are incurred to purchase or develop internal-use software. Internal-use software programs also include software used by the company to deliver Software-as-a-Service when the client does not receive a license to the software and the company has no substantive plans to market the software externally. Capitalized costs are amortized on a straight-line basis over periods ranging up to three years and are recorded in selling, general and administrative expense or cost of sales, depending on whether the software is used by the company in revenue generating transactions. Additionally, the company may capitalize certain types of implementation costs and amortize them over the term of the arrangement when the company is a customer in a cloud-computing arrangement.

Incremental Costs of Obtaining a Contract

Incremental costs of obtaining a contract (e.g., sales commissions) are capitalized and amortized on a straight-line basis over the expected customer relationship period if the company expects to recover those costs. The expected customer relationship period, determined based on the average customer relationship period, including expected renewals, for each offering type, is three years. Expected renewal periods are only included in the expected customer relationship period if commission amounts paid upon renewal are not commensurate with amounts paid on the initial contract. Incremental costs of obtaining a contract include only those costs the company incurs to obtain a contract that it would not have incurred if the contract had not been obtained. The company has determined that certain commissions programs meet the requirements to be capitalized. Some commission programs are not subject to capitalization as the commission expense is paid and recognized as the related revenue is recognized. Additionally, as a practical expedient, the company expenses costs to obtain a contract as incurred if the amortization period would have been a year or less. These costs are included in selling, general and administrative expenses.

Product Warranties

The company offers warranties for its hardware products that generally range up to three years, with the majority being either one or three years. Any cost of standard warranties is accrued when the corresponding revenue is recognized. The company estimates its standard warranty costs for products based on historical warranty claim experience and estimates of future spending and applies this estimate to the revenue stream for products under warranty. Estimated future costs for warranties applicable to revenue recognized in the current period are charged to cost of sales. The warranty liability is reviewed quarterly to verify that it properly reflects the remaining obligation based on the anticipated expenditures over the balance of the obligation period. Adjustments are made when actual warranty claim experience differs from estimates. Costs from fixed-price support or maintenance contracts, including extended warranty contracts, are recognized as incurred.

Revenue from extended warranty contracts is initially recorded as deferred income and subsequently recognized on a straight-line basis over the delivery period because the company is providing a service of standing ready to provide services over such term.

Refer to note R, “Commitments & Contingencies,” for additional information.

Shipping and Handling

Costs related to shipping and handling are recognized as incurred and included in cost in the Consolidated Income Statement.

Expense and Other Income

Selling, General and Administrative

Selling, general and administrative (SG&A) expense is charged to income as incurred, except for certain sales commissions, which are capitalized and amortized. For further information regarding capitalizing sales commissions, see “Incremental Costs of Obtaining a Contract” above. Expenses of promoting and selling products and services are classified as selling expense and, in addition to sales commissions, include such items as compensation, advertising and travel. General and administrative expense includes such items as compensation, legal costs, office supplies, non-income taxes, insurance and office rental. In addition, general and administrative expense includes other operating items such as an allowance for credit losses, workforce rebalancing charges for contractually obligated payments to employees terminated in the ongoing course of business, acquisition costs related to business combinations, amortization of certain intangible assets and environmental remediation costs.

Advertising and Promotional Expense

The company expenses advertising and promotional costs as incurred. Cooperative advertising reimbursements from vendors are recorded net of advertising and promotional expense in the period in which the related advertising and promotional expense is incurred.

Advertising and promotional expense, which includes media, agency and promotional expense, was $1,330 million, $1,413 million and $1,509 million in 2022, 2021 and 2020, respectively, and is recorded in SG&A expense in the Consolidated Income Statement.

Research, Development and Engineering

Research, development and engineering (RD&E) costs are expensed as incurred. Software costs that are incurred to produce the finished product after technological feasibility has been established are capitalized as an intangible asset.

Intellectual Property and Custom Development Income

The company licenses and sells the rights to certain of its intellectual property (IP) including internally developed patents, trade secrets and technological know-how. Certain IP transactions to third parties are licensing/royalty-based and others are transaction-based sales/other transfers. Income from licensing arrangements is recognized at the inception of the license term if the nature of the company's promise is to provide a right to use the company's intellectual property as it exists at that point in time (i.e., the license is functional intellectual property) and control has transferred to the client. Income is recognized over time if the nature of the company's promise is to provide a right to access the company's intellectual property throughout the license period (i.e., the license is symbolic intellectual property), such as a trademark license. Income from royalty-based fee arrangements is recognized at the later of when the subsequent sale or usage occurs or the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). The company also enters into cross-licensing arrangements of patents, and income from these arrangements is recognized when control transfers to the customer. In addition, the company earns income from certain custom development projects with strategic technology partners and specific clients. The company records the income from these projects over time as the company satisfies the performance obligation if the fee is nonrefundable and is not dependent upon the ultimate success of the project.

Other (Income) and Expense

Components of other (income) and expense are as follows:

($ in millions)

For the year ended December 31:	2022	2021	2020
Other (income) and expense			
Foreign currency transaction losses/(gains)*	$ (643)	$ (204)	$ 114
(Gains)/losses on derivative instruments	225	205	(101)
Interest income	(162)	(52)	(105)
Net (gains)/losses from securities and investment assets	278	(133)	(22)
Retirement-related costs/(income)	6,548 **	1,282	1,073
Other[È]	(443)	(225)	(156)
Total other (income) and expense	$5,803	$ 873	$ 802

* The company uses financial hedging instruments to limit specific currency risks related to foreign currency-based transactions. The hedging program does not hedge 100 percent of currency exposures and defers, versus eliminates, the impact of currency. Refer to note T, "Derivative Financial Instruments," for additional information on foreign exchange risk.

** Includes a one-time, non-cash pension settlement charge of $5.9 billion. Refer to note V, "Retirement-Related Benefits," for additional information.

È Other primarily consists of (gains)/losses from divestitures, dispositions of land/buildings and other.

Government Assistance

The company receives grants from governments and government agencies (government) in support of certain of the company's business activities, primarily related to research, job creation, or job training. Grants are generally received in the form of cash as either a recovery for expenses incurred or as an incentive for meeting certain requirements as agreed to in the grant, with terms ranging from one to five years. Grants are recorded as credits against Cost, SG&A and RD&E in the Consolidated Income Statement based on the nature of the grant and the expense being offset once the conditions and restrictions of the grant have been met and payment has been received from the government. When a grant is received before conditions of the grant have been met, the grant is recorded in other accrued expenses and liabilities or other liabilities in the Consolidated Balance Sheet. For the year ended December 31, 2022, grants recorded in the company's Consolidated Financial Statements were not material.

Business Combinations and Intangible Assets Including Goodwill

The company accounts for business combinations using the acquisition method and accordingly, the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree are generally recorded at their acquisition date fair values. Contract assets and contract liabilities are measured in accordance with the guidance on revenue recognition. Goodwill represents the excess of the purchase price over the fair value of net assets, including the amount assigned to identifiable intangible assets. The primary drivers that generate goodwill are the value of synergies between the acquired entities and the company and the acquired assembled workforce, neither of which qualifies as a separately identifiable intangible asset. Goodwill recorded in an acquisition is assigned to applicable reporting units based on expected revenues or expected cash flows. Identifiable intangible assets with finite lives are amortized over their useful lives. Amortization of completed technology is recorded in cost, and amortization of all other intangible assets is recorded in SG&A expense. Acquisition-related costs, including advisory, legal, accounting, valuation and pre-close and other costs, are typically expensed in the periods in which the costs are incurred and are recorded in SG&A expense. The results of operations of acquired businesses are included in the Consolidated Financial Statements from the acquisition date.

Impairment
Long-lived assets, other than goodwill, are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The impairment test is typically based on undiscounted cash flows and, if impaired, the asset is written down to fair value based on either discounted cash flows or appraised values. Goodwill is tested for impairment at least annually, in the fourth quarter and whenever changes in circumstances indicate an impairment may exist. The goodwill impairment test is performed at the reporting unit level, which is generally at the level of or one level below an operating segment.

Depreciation and Amortization
Property, plant and equipment are carried at cost and depreciated over their estimated useful lives using the straight-line method. The estimated useful lives of certain depreciable assets are as follows: buildings, 30 to 50 years; building equipment, 10 to 20 years; land improvements, 20 years; production, engineering, office and other equipment, 2 to 20 years; and information technology equipment, 1.5 to 5 years. Leasehold improvements are amortized over the shorter of their estimated useful lives or the related lease term, rarely exceeding 25 years. Refer to the “Use of Estimates” section above for additional information about the useful lives of information technology equipment.

As noted within the “Software Costs” section of this note, capitalized software costs are amortized on a straight-line basis over periods ranging up to 3 years. Other intangible assets are amortized over periods between 1 and 20 years.

Environmental
The cost of internal environmental protection programs that are preventative in nature are expensed as incurred. When a cleanup program becomes likely, and it is probable that the company will incur cleanup costs and those costs can be reasonably estimated, the company accrues remediation costs for known environmental liabilities.

Asset Retirement Obligations
Asset retirement obligations (ARO) are legal obligations associated with the retirement of long-lived assets and the liability is initially recorded at fair value. The related asset retirement costs are capitalized by increasing the carrying amount of the related assets by the same amount as the liability. Asset retirement costs are subsequently depreciated over the useful lives of the related assets. Subsequent to initial recognition, the company records period-to-period changes in the ARO liability resulting from the passage of time in interest expense and revisions to either the timing or the amount of the original expected cash flows to the related assets.

Defined Benefit Pension and Nonpension Postretirement Benefit Plans
The funded status of the company’s defined benefit pension plans and nonpension postretirement benefit plans (retirement-related benefit plans) is recognized in the Consolidated Balance Sheet. The funded status is measured as the difference between the fair value of plan assets and the benefit obligation at December 31, the measurement date. For defined benefit pension plans, the benefit obligation is the projected benefit obligation (PBO), which represents the actuarial present value of benefits expected to be paid upon retirement based on employee services already rendered and estimated future compensation levels. For the nonpension postretirement benefit plans, the benefit obligation is the accumulated postretirement benefit obligation (APBO), which represents the actuarial present value of postretirement benefits attributed to employee services already rendered. The fair value of plan assets represents the current market value of assets held in an irrevocable trust fund, held for the sole benefit of participants, which are invested by the trust fund. Overfunded plans, with the fair value of plan assets exceeding the benefit obligation, are aggregated and recorded as a prepaid pension asset equal to this excess. Underfunded plans, with the benefit obligation exceeding the fair value of plan assets, are aggregated and recorded as a retirement and nonpension postretirement benefit obligation equal to this excess.

The current portion of the retirement and nonpension post-retirement benefit obligations represents the actuarial present value of benefits payable in the next 12 months exceeding the fair value of plan assets, measured on a plan-by-plan basis. This obligation is recorded in compensation and benefits in the Consolidated Balance Sheet.

Net periodic pension and nonpension postretirement benefit cost/(income) is recorded in the Consolidated Income Statement and includes service cost, interest cost, expected return on plan assets, amortization of prior service costs/(credits) and (gains)/losses previously recognized as a component of other comprehensive income/(loss) (OCI) and amortization of the net transition asset remaining in accumulated other comprehensive income/(loss) (AOCI). The service cost component of net benefit cost is recorded in Cost, SG&A and RD&E in the Consolidated Income Statement (unless eligible for capitalization) based on the employees’ respective functions. The other components of net benefit cost are presented separately from service cost within other (income) and expense in the Consolidated Income Statement.

(Gains)/losses and prior service costs/(credits) are recognized as a component of OCI in the Consolidated Statement of Comprehensive Income as they arise. Those (gains)/losses and prior service costs/(credits) are subsequently recognized as a component of net periodic cost/(income) pursuant to the recognition and amortization provisions of applicable accounting guidance. (Gains)/losses arise as a result of differences between actual experience and assumptions or as a result of changes in actuarial assumptions. Prior service costs/(credits) represent the cost of benefit changes attributable to prior service granted in plan amendments.

The measurement of benefit obligations and net periodic cost/(income) is based on estimates and assumptions approved by the company's management. These valuations reflect the terms of the plans and use participant-specific information such as compensation, age and years of service, as well as certain assumptions, including estimates of discount rates, expected return on plan assets, rate of compensation increases, interest crediting rates and mortality rates.

Defined Contribution Plans
The company's contribution for defined contribution plans is recorded when the employee renders service to the company. The charge is recorded in Cost, SG&A and RD&E in the Consolidated Income Statement based on the employees' respective functions.

Stock-Based Compensation
Stock-based compensation represents the cost related to stock-based awards granted to employees. The company measures stock-based compensation cost at the grant date, based on the estimated fair value of the award and recognizes the cost on a straight-line basis (net of estimated forfeitures) over the employee requisite service period. The company grants its employees Restricted Stock Units (RSUs), including Retention Restricted Stock Units (RRSUs); Performance Share Units (PSUs); and stock options. RSUs are stock awards granted to employees that entitle the holder to shares of common stock as the award vests, typically over a one- to four-year period. PSUs are stock awards where the number of shares ultimately received by the employee depends on performance against specified targets and typically vest over a three-year period. Over the performance period, the number of shares that will be issued is adjusted based upon the probability of achievement of performance targets. The ultimate number of shares issued and the related compensation cost recognized as expense will be based on a comparison of the final performance metrics to the specified targets. Dividend equivalents are not paid on the stock awards described above. The fair value of the awards is determined and fixed on the grant date based on the company's stock price, adjusted for the exclusion of dividend equivalents where applicable and for PSUs assumes that performance targets will be achieved. The company estimates the fair value of stock options using a Black-Scholes valuation model. Stock-based compensation cost is recorded in Cost, SG&A, and RD&E in the Consolidated Income Statement based on the employees' respective functions.

The company records deferred tax assets for awards that result in deductions on the company's income tax returns, based on the amount of compensation cost recognized and the relevant statutory tax rates. The differences between the deferred tax assets recognized for financial reporting purposes and the actual tax deduction reported on the income tax return are recorded as a benefit or expense to the provision for income taxes in the Consolidated Income Statement.

Income Taxes
Income tax expense is based on reported income before income taxes. Deferred income taxes reflect the tax effect of temporary differences between asset and liability amounts that are recognized for financial reporting purposes and the amounts that are recognized for income tax purposes. These deferred taxes are measured by applying currently enacted tax laws. The company includes Global Intangible Low-Taxed Income (GILTI) in measuring deferred taxes. Valuation allowances are recognized to reduce deferred tax assets to the amount that will more likely than not be realized. In assessing the need for a valuation allowance, management considers all available evidence for each jurisdiction including past operating results, estimates of future taxable income and the feasibility of ongoing tax planning strategies/actions. When the company changes its determination as to the amount of deferred tax assets that can be realized, the valuation allowance is adjusted with a corresponding impact to income tax expense in the period in which such determination is made.

The company recognizes additional tax liabilities when the company believes that certain positions may not be fully sustained upon review by tax authorities. Benefits from tax positions are measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon settlement. The noncurrent portion of tax liabilities is included in other liabilities in the Consolidated Balance Sheet. To the extent that new information becomes available which causes the company to change its judgment regarding the adequacy of existing tax liabilities, such changes to tax liabilities will impact income tax expense in the period in which such determination is made. Interest and penalties, if any, related to accrued liabilities for potential tax assessments are included in income tax expense.

Translation of Non-U.S. Currency Amounts
Assets and liabilities of non-U.S. subsidiaries that have a local functional currency are translated to U.S. dollars at year-end exchange rates. Translation adjustments are recorded in OCI. Income and expense items are translated at weighted-average rates of exchange prevailing during the year.

Inventory, property, plant and equipment—net and other non-monetary assets and liabilities of non-U.S. subsidiaries and branches that operate in U.S. dollars are translated at the approximate exchange rates prevailing when the company acquired the assets or

liabilities. All other assets and liabilities denominated in a currency other than U.S. dollars are translated at year-end exchange rates with the transaction gain or loss recognized in other (income) and expense. Income and expense items are translated at the weighted-average rates of exchange prevailing during the year. These translation gains and losses are included in net income for the period in which exchange rates change.

Derivative Financial Instruments
The company uses derivative financial instruments primarily to manage foreign currency and interest rate risk, and to a lesser extent, equity and credit risk. The company does not use derivative financial instruments for trading or speculative purposes. Derivatives that qualify for hedge accounting can be designated as either cash flow hedges, net investment hedges, or fair value hedges. The company may enter into derivative contracts that economically hedge certain of its risks, even when hedge accounting does not apply, or the company elects not to apply hedge accounting.

Derivatives are recognized in the Consolidated Balance Sheet at fair value on a gross basis as either assets or liabilities and classified as current or noncurrent based upon whether the maturity of the instrument is less than or greater than 12 months.

Changes in the fair value of derivatives designated as a cash flow hedge are recorded, net of applicable taxes, in OCI and subsequently reclassified into the same income statement line as the hedged exposure when the underlying hedged item is recognized in earnings. Effectiveness for net investment hedging derivatives is measured on a spot-to-spot basis. Changes in the fair value of highly effective net investment hedging derivatives and other non-derivative financial instruments designated as net investment hedges are recorded as foreign currency translation adjustments in AOCI. Changes in the fair value of the portion of a net investment hedging derivative excluded from the assessment of effectiveness are recorded in interest expense and cost of financing. Changes in the fair value of interest rate derivatives designated as a fair value hedge and the offsetting changes in the fair value of the underlying hedged exposure are recorded in interest expense and cost of financing. Changes in the fair value of derivatives not designated as hedges are reported in earnings primarily in other (income) and expense. See note T, “Derivative Financial Instruments,” for further information.

The cash flows associated with derivatives designated as fair value and cash flow hedges are reported in cash flows from operating activities in the Consolidated Statement of Cash Flows. Cash flows from derivatives designated as net investment hedges and derivatives not designated as hedges are reported in cash flows from investing activities in the Consolidated Statement of Cash Flows. Cash flows from derivatives designated as hedges of foreign currency denominated debt directly associated with the settlement of the principal are reported in payments to settle debt in cash flows from financing activities in the Consolidated Statement of Cash Flows.

Financial Instruments
In determining the fair value of its financial instruments, the company uses a variety of methods and assumptions that are based on market conditions and risks existing at each balance sheet date. See note J, “Financial Assets & Liabilities,” for further information. All methods of assessing fair value result in a general approximation of value, and such value may never actually be realized.

Fair Value Measurement
Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The company classifies certain assets and liabilities based on the following fair value hierarchy:

- Level 1–Quoted prices (unadjusted) in active markets for identical assets or liabilities that can be accessed at the measurement date;
- Level 2–Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and
- Level 3–Unobservable inputs for the asset or liability.

When available, the company uses unadjusted quoted market prices in active markets to measure the fair value and classifies such items as Level 1. If quoted market prices are not available, fair value is based upon internally developed models that use current market-based or independently sourced market parameters such as interest rates and currency rates. Items valued using internally generated models are classified according to the lowest level input or value driver that is significant to the valuation.

The determination of fair value considers various factors including interest rate yield curves and time value underlying the financial instruments. For derivatives and debt securities, the company uses a discounted cash flow analysis using discount rates commensurate with the duration of the instrument.

In determining the fair value of financial instruments, the company considers certain market valuation adjustments to the "base valuations" calculated using the methodologies described below for several parameters that market participants would consider in determining fair value:

- Counterparty credit risk adjustments are applied to financial instruments, taking into account the actual credit risk of a counterparty as observed in the credit default swap market to determine the true fair value of such an instrument.
- Credit risk adjustments are applied to reflect the company's own credit risk when valuing all liabilities measured at fair value. The methodology is consistent with that applied in developing counterparty credit risk adjustments, but incorporates the company's own credit risk as observed in the credit default swap market.

The company holds investments primarily in time deposits, certificates of deposit, and U.S. government debt that are designated as available-for-sale. The primary objective of the company's cash and debt investment portfolio is to maintain principal by investing in very liquid and highly rated investment grade securities.

Available-for-sale securities are measured for impairment on a recurring basis by comparing the security's fair value with its amortized cost basis. If the fair value of the security falls below its amortized cost basis, the change in fair value is recognized in the period the impairment is identified when the loss is due to credit factors. The change in fair value due to non-credit factors is recorded in other comprehensive income when the company does not intend to sell and has the ability to hold the investment. The company's standard practice is to hold all of its debt security investments classified as available-for-sale until maturity. There were no impairments for credit losses and no material non-credit impairments recognized for the years ended December 31, 2022, 2021 and 2020.

Certain nonfinancial assets such as property, plant and equipment, land, goodwill and intangible assets are subject to nonrecurring fair value measurements if they are deemed to be impaired. The impairment models used for nonfinancial assets depend on the type of asset. There were no material impairments of nonfinancial assets for the years ended December 31, 2022, 2021 and 2020.

Cash Equivalents
All highly liquid investments with maturities of three months or less at the date of purchase are considered to be cash equivalents.

Marketable Securities
The company measures equity investments at fair value with changes recognized in net income.

Debt securities included in current assets represent securities that are expected to be realized in cash within one year of the balance sheet date. Long-term debt securities and alliance equity securities are included in investments and sundry assets. At December 31, 2022 and 2021, alliance equity securities were $142 million and $159 million, respectively. Debt securities are considered available-for-sale and are reported at fair value with unrealized gains and losses, net of applicable taxes, in OCI. The realized gains and losses on available-for-sale debt securities are included in other (income) and expense in the Consolidated Income Statement. Realized gains and losses are calculated based on the specific identification method.

Inventory
Raw materials, work in process and finished goods are stated at the lower of average cost or net realizable value.

Notes and Accounts Receivable—Trade and Contract Assets
The company classifies the right to consideration in exchange for products or services transferred to a client as either a receivable or a contract asset. A receivable is a right to consideration that is unconditional as compared to a contract asset which is a right to consideration that is conditional upon factors other than the passage of time. The majority of the company's contract assets represent unbilled amounts related to design and build services contracts when the cost-to-cost method of revenue recognition is utilized, revenue recognized exceeds the amount billed to the client, and the right to consideration is subject to milestone completion or client acceptance. Contract assets are generally classified as current and are recorded on a net basis with deferred income (i.e., contract liabilities) at the contract level.

Financing Receivables
Financing receivables primarily consist of client loan and installment payment receivables (loans) and investment in sales-type and direct financing leases (collectively referred to as client financing receivables) and commercial financing receivables. Leases are accounted for in accordance with lease accounting standards. Loans, which are generally unsecured, are primarily for software and services. Commercial financing receivables are primarily for working capital financing to distributors and resellers of IBM products and services. Financing receivables are classified as either held for sale or held for investment, depending on the company's intent and ability to hold the underlying contract for the foreseeable future or until maturity or payoff. Loans and commercial financing receivables are recorded at amortized cost, which approximates fair value.

Transfers of Financial Assets

The company enters into arrangements to sell certain financial assets (primarily notes and accounts receivable–trade and financing receivables) to third-party financial institutions. For a transfer of financial assets to be considered a sale, the asset must be legally isolated from the company and the purchaser must have control of the asset. Determining whether all the requirements have been met includes an evaluation of legal considerations, the extent of the company's continuing involvement with the assets transferred and any other relevant consideration. When the true sale criteria are met, the company derecognizes the carrying value of the financial asset transferred and recognizes a net gain or loss on the sale. The proceeds from these arrangements are reflected as cash provided by operating activities in the Consolidated Statement of Cash Flows. If the true sale criteria are not met, the transfer is considered a secured borrowing and the financial asset remains on the Consolidated Balance Sheet with proceeds from the sale recognized as debt and recorded as cash flows from financing activities in the Consolidated Statement of Cash Flows.

Arrangements to sell notes and accounts receivable–trade are used in the normal course of business as part of the company's cash and liquidity management. Facilities primarily in the U.S. and several countries in Europe enable the company to sell certain notes and accounts receivable–trade, without recourse, to third parties in order to manage credit, collection, concentration and currency risk. The gross amounts sold (the gross proceeds) under these arrangements were $3.3 billion, $1.8 billion and $2.2 billion for the years ended December 31, 2022, 2021 and 2020, respectively. Within the notes and accounts receivables–trade sold and derecognized from the Consolidated Balance Sheet, $1.0 billion, $0.7 billion, and $0.4 billion remained uncollected from customers at December 31, 2022, 2021 and 2020, respectively. The fees and the net gains and losses associated with the transfer of receivables were not material for any of the periods presented. Refer to note L, "Financing Receivables," for more information on transfers of financing receivables.

Allowance for Credit Losses

Receivables are recorded concurrent with billing and shipment of a product and/or delivery of a service to customers. An allowance for uncollectible trade receivables and contract assets, if needed, is estimated based on specific customer situations, current and future expected economic conditions, past experiences of losses, as well as an assessment of potential recoverability of the balance due.

The company estimates its allowances for expected credit losses for financing receivables by considering past events, including any historical default, historical concessions and resulting troubled debt restructurings, current economic conditions, any non-freestanding mitigating credit enhancements, and certain forward-looking information, including reasonable and supportable forecasts. The methodologies that the company uses to calculate its financing receivables reserves, which are applied consistently to its different portfolios, are as follows:

Individually Evaluated–The company reviews all financing receivables considered at risk quarterly, and performs an analysis based upon current information available about the client, such as financial statements, news reports, published credit ratings, current market-implied credit analysis, as well as collateral net of repossession cost, prior collection history and current and future expected economic conditions. For loans that are collateral dependent, impairment is measured using the fair value of the collateral when foreclosure is probable. Using this information, the company determines the expected cash flow for the receivable and calculates an estimate of the potential loss and the probability of loss. For those accounts in which the loss is probable, the company records a specific reserve.

Collectively Evaluated–The company determines its allowances for credit losses for collectively evaluated financing receivables (unallocated) based on two portfolio segments: client financing receivables and commercial financing receivables. The company further segments the portfolio into three classes: Americas, Europe/Middle East/Africa (EMEA) and Asia Pacific.

For client financing receivables, the company uses a credit loss model to calculate allowances based on its internal loss experience and current conditions and forecasts, by class of financing receivable. The company records an unallocated reserve that is calculated by applying a reserve rate to its portfolio, excluding accounts that have been individually evaluated and specifically reserved. This reserve rate is based upon credit rating, probability of default, term and loss history. The allowance is adjusted quarterly for expected recoveries of amounts that were previously written off or are expected to be written off. Recoveries cannot exceed the aggregated amount of the previous write-off or expected write-off.

The company considers forward-looking macroeconomic variables such as gross domestic product, unemployment rates, equity prices and corporate profits when quantifying the impact of economic forecasts on its client financing receivables allowance for expected credit losses. Macroeconomic variables may vary by class of financing receivables based on historical experiences, portfolio composition and current environment. The company also considers the impact of current conditions and economic forecasts relating to specific industries, geographical areas, and client credit ratings, in addition to performing a qualitative review of credit risk factors across the portfolio. Under this approach, forecasts of these variables over two years are considered reasonable and supportable. Beyond two years, the company reverts to long-term average loss experience. Forward-looking estimates require the use of judgment, particularly in times of economic uncertainty.

The portfolio of commercial financing receivables is short term in nature and any allowance for these assets is estimated based on a combination of write-off history and current economic conditions, excluding any individually evaluated accounts.

Other Credit-Related Policies

Past Due–The company views receivables as past due when payment has not been received after 90 days, measured from the original billing date.

Non-Accrual–Non-accrual assets include those receivables (impaired loans or nonperforming leases) with specific reserves and other accounts for which it is likely that the company will be unable to collect all amounts due according to original terms of the lease or loan agreement. Interest income recognition is discontinued on these receivables. Cash collections are first applied as a reduction to principal outstanding. Any cash received in excess of principal payments outstanding is recognized as interest income. Receivables may be removed from non-accrual status, if appropriate, based upon changes in client circumstances, such as a sustained history of payments.

Write-Off–Receivable losses are charged against the allowance in the period in which the receivable is deemed uncollectible. Subsequent recoveries, if any, are credited to the allowance. Write-offs of receivables and associated reserves occur to the extent that the customer is no longer in operation and/or there is no reasonable expectation of additional collections or repossession.

Leases

The company conducts business as both a lessee and a lessor. In its ordinary course of business, the company enters into leases as a lessee for property, plant and equipment. The company is also the lessor of certain equipment, mainly through its Financing segment.

When procuring goods or services, or upon entering into a contract with its clients, the company determines whether an arrangement contains a lease at its inception. As part of that evaluation, the company considers whether there is an implicitly or explicitly identified asset in the arrangement and whether the company, as the lessee, or the client, if the company is the lessor, has the right to control the use of that asset.

Accounting for Leases as a Lessee

When the company is the lessee, all leases with a term of more than 12 months are recognized as right-of-use (ROU) assets and associated lease liabilities in the Consolidated Balance Sheet. The lease liabilities are measured at the lease commencement date and determined using the present value of the lease payments not yet paid and the company's incremental borrowing rate, which approximates the rate at which the company would borrow on a secured basis in the country where the lease was executed. The interest rate implicit in the lease is generally not determinable in transactions where the company is the lessee. The ROU asset equals the lease liability adjusted for any initial direct costs (IDCs), prepaid rent and lease incentives. The company's variable lease payments generally relate to payments tied to various indexes, non-lease components and payments above a contractual minimum fixed amount.

Operating leases are included in operating right-of-use assets–net, current operating lease liabilities and operating lease liabilities in the Consolidated Balance Sheet. Finance leases are included in property, plant and equipment, short-term debt and long-term debt in the Consolidated Balance Sheet. The lease term includes options to extend or terminate the lease when it is reasonably certain that the company will exercise that option.

The company made a policy election to not recognize leases with a lease term of 12 months or less in the Consolidated Balance Sheet.

For all asset classes, the company has elected the lessee practical expedient to combine lease and non-lease components (e.g., maintenance services) and account for the combined unit as a single lease component. A significant portion of the company's lease portfolio is real estate, which are mainly accounted for as operating leases, and are primarily used for corporate offices and data centers. The average term of the real estate leases is approximately five years. The company also has equipment leases, such as IT equipment and vehicles, which have lease terms that range from two to five years. For certain of these operating and finance leases, the company applies a portfolio approach to account for the lease assets and lease liabilities.

Accounting for Leases as a Lessor

The company typically enters into leases as an alternative means of realizing value from equipment that it would otherwise sell. Assets under lease primarily include new and used IBM equipment. IBM equipment generally consists of zSystems, Power and Storage products.

Lease payments due to IBM are typically fixed and paid in equal installments over the lease term. The majority of the company's leases do not contain variable payments that are dependent on an index or a rate. Variable lease payments that do not depend on an index or a rate (e.g., property taxes), that are paid directly by the company and are reimbursed by the client, are recorded as revenue, along with the related cost, in the period in which collection of these payments is probable. Payments that are made directly by the client to a third party, including certain property taxes and insurance, are not considered part of variable payments and therefore are not recorded by the company. The company has made a policy election to exclude from consideration in contracts all collections from sales and other similar taxes.

The company's payment terms for leases are typically unconditional. Therefore, in an instance when the client requests to terminate the lease prior to the end of the lease term, the client would typically be required to pay the remaining lease payments in full. At the end of the lease term, the company allows the client to either return the equipment, purchase the equipment at the then-current fair market value or at a pre-stated purchase price, or renew the lease based on mutually agreed upon terms.

When lease arrangements include multiple performance obligations, the company allocates the consideration in the contract between the lease components and the non-lease components on a relative standalone selling price basis.

Sales-Type and Direct Financing Leases

For a sales-type or direct financing lease, the carrying amount of the asset is derecognized from inventory and a net investment in the lease is recorded. For a sales-type lease, the net investment in the lease is measured at commencement date as the sum of the lease receivable and the estimated residual value of the equipment less unearned income and allowance for credit losses. Any selling profit or loss arising from a sales-type lease is recorded at lease commencement. Selling profit or loss is presented on a gross basis when the company enters into a lease to realize value from a product that it would otherwise sell in its ordinary course of business. For segment reporting, the net investment in sales-type leases excluding the allowance for credit losses is recognized as hardware revenue in the Infrastructure segment, while the estimated residual value less related unearned income is recognized as a reduction in revenue in the Other revenue category and represents the portion of fair value retained by the company. In transactions where the company enters into a lease for the purpose of generating revenue by providing financing, the selling profit or loss is presented on a net basis. Under a sales-type lease, initial direct costs are expensed at lease commencement. Over the term of the lease, the company recognizes finance income on the net investment in the lease and any variable lease payments, which are not included in the net investment in the lease.

For a direct financing lease, the net investment in the lease is measured similarly to a sales-type lease, however, the net investment in the lease is reduced by any selling profit. In a direct financing lease, the selling profit and initial direct costs are deferred at commencement and recognized over the lease term. The company rarely enters into direct financing leases.

The estimated residual value represents the estimated fair value of the equipment under lease at the end of the lease. The company estimates the future fair value of leased equipment by using historical models, analyzing the current market for new and used equipment and obtaining forward-looking product information such as marketing plans and technology innovations. The company optimizes the recovery of residual values by extending lease arrangements with, or selling leased equipment to existing clients, and periodically reassesses the realizable value of its lease residual values. Anticipated decreases in specific future residual values that are considered to be other-than-temporary are recognized immediately upon identification and are recorded as adjustments to the residual value estimate and unearned income, which reduces current period and future period financing income, respectively.

Common Stock

Common stock refers to the $.20 par value per share capital stock as designated in the company's Certificate of Incorporation. Treasury stock is accounted for using the cost method. When treasury stock is reissued, the value is computed and recorded using a weighted-average basis.

Earnings Per Share of Common Stock

Earnings per share (EPS) is computed using the two-class method, which determines EPS for each class of common stock and participating securities according to dividends and dividend equivalents and their respective participation rights in undistributed earnings. Basic EPS of common stock is computed by dividing net income by the weighted-average number of common shares outstanding for the period. Diluted EPS of common stock is computed on the basis of the weighted-average number of shares of common stock plus the effect of dilutive potential common shares outstanding during the period using the treasury stock method. Dilutive potential common shares include outstanding stock awards, convertible notes and stock options.

NOTE B. ACCOUNTING CHANGES

New Standards to be Implemented

Disclosures of Supplier Finance Program Obligations

Standard/Description–Issuance date: September 2022. This guidance requires an entity to provide certain interim and annual disclosures about the use of supplier finance programs in connection with the purchase of goods or services.

Effective Date and Adoption Considerations–The guidance was effective January 1, 2023 with certain annual disclosures required beginning in 2024 and early adoption was permitted. The company adopted the guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters–As the guidance is a change to disclosures only, the company does not expect it to have a material impact in the consolidated financial results. The company's use of supplier finance programs as of December 31, 2022 was not material.

Troubled Debt Restructurings and Vintage Disclosures

Standard/Description–Issuance date: March 2022. This eliminates the accounting guidance for troubled debt restructurings and requires an entity to apply the general loan modification guidance to all loan modifications, including those made to customers experiencing financial difficulty, to determine whether the modification results in a new loan or a continuation of an existing loan. The guidance also requires presenting current period gross write-offs by year of origination for financing receivables and net investment in leases.

Effective Date and Adoption Considerations–The amendment was effective January 1, 2023 and early adoption was permitted. The company adopted the guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance is not expected to have a material impact in the consolidated financial results.

Standards Implemented

Disclosures about Government Assistance

Standard/Description–Issuance date: November 2021. This guidance requires an entity to provide certain annual disclosures about government assistance received and accounted for by applying a grant or contribution accounting model by analogy.

Effective Date and Adoption Considerations–The guidance was effective for annual disclosures beginning in 2022 and early adoption was permitted. The company adopted the guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results. Refer to note A, “Significant Accounting Policies,” for additional information.

Lessors–Certain Leases with Variable Lease Payments

Standard/Description–Issuance date: July 2021. This guidance modifies a lessor’s accounting for certain leases with variable lease payments that resulted in the recognition of a day-one loss even if the lessor expected the arrangement to be profitable overall. The amendment requires these types of lease contracts to be classified as operating leases which eliminates any recognition of a day-one loss.

Effective Date and Adoption Considerations–The amendment was effective January 1, 2022 and early adoption was permitted. The company adopted the guidance on a prospective basis as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results.

Revenue Contracts with Customers Acquired in a Business Combination

Standard/Description–Issuance date: October 2021. This guidance requires that an acquirer recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with revenue guidance, as if it had originated the contracts. Deferred revenue acquired in a business combination is no longer required to be measured at its fair value, but rather will generally be recognized at the same basis as the acquiree.

Effective Date and Adoption Considerations–The amendment was effective January 1, 2023 and early adoption was permitted, including adoption in an interim period. The company adopted the guidance as of October 1, 2021 using the retrospective transition method whereby the new guidance was applied to all business combinations that occurred on or after January 1, 2021.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results. The impact of the guidance in IBM’s future financial results will be dependent on the nature and size of its acquisitions.

Simplifying the Accounting for Income Taxes

Standard/Description–Issuance date: December 2019. This guidance simplifies various aspects of income tax accounting by removing certain exceptions to the general principle of the guidance and also clarifies and amends existing guidance to improve consistency in application.

Effective Date and Adoption Considerations–The guidance was effective January 1, 2021 and early adoption was permitted. The company adopted the guidance on a prospective basis as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results.

For all other standards that the company adopted in the periods presented, there was no material impact in the consolidated financial results.

NOTE C. SEPARATION OF KYNDRYL

As discussed in note A, “Significant Accounting Policies,” on November 3, 2021, the company completed the separation of its managed infrastructure services unit into a new public company, Kyndryl.

The historical results of Kyndryl have been presented as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented. The company’s presentation of discontinued operations excludes general corporate overhead costs which were historically allocated to Kyndryl, consistent with the company’s management system, that did not meet the requirements to be presented in discontinued operations. Such allocations include labor and non-labor expenses related to IBM’s corporate support functions (e.g., finance, accounting, tax, treasury, IT, HR, legal, among others) that historically provided support to Kyndryl and transferred to Kyndryl at separation. In addition, discontinued operations excludes the historical intercompany purchases and sales between IBM and Kyndryl that were eliminated in consolidation.

IBM will provide transition services to Kyndryl predominantly consisting of information technology services for a period no longer than two years after the separation. The impact of these transition services on the company’s Consolidated Financial Statements for the year ended December 31, 2022 was not material.

At separation, IBM and Kyndryl entered into various commercial agreements pursuant to which Kyndryl will purchase hardware, software and services from IBM and under which IBM will receive hosting and information infrastructure services from Kyndryl. As part of the separation, IBM has also committed to provide upgraded hardware at no cost to Kyndryl over a two-year period after the separation. An estimate of the remaining obligation under the agreement is recorded in other accrued expenses and liabilities in the Consolidated Balance Sheet.

The total net impact to stockholder’s equity from the separation was a reduction of $7,203 million, which was reflected as a reduction of $8,404 million, $1,264 million and $62 million to retained earnings, accumulated other comprehensive income/(loss) and noncontrolling interest, respectively, in the Consolidated Statement of Equity as of December 31, 2021.

The following table presents the major categories of income/(loss) from discontinued operations, net of tax.

($ in millions)

For the year ended December 31:	**2022**	**2021 ***	**2020 ***
Revenue	$ 7	$ 14,994	$ 18,441
Cost of sales	24	11,270	13,651
Selling, general and administrative expense	86	1,869 **	1,641 **
Kyndryl-related workforce rebalancing charges	—	31 **	884 **
RD&E and Other (income) and expense	(84)	80	124
Income/(loss) from discontinued operations before income taxes	$ (20)	$ 1,744	$ 2,142
Provision for income taxes	124	714 È	484
Income/(loss) from discontinued operations, net of taxÈÈ	$ (143)	$ 1,030	$ 1,658

* Excludes intercompany transactions between IBM and Kyndryl and general corporate overhead costs transferred to Kyndryl as discussed above.

** Recast to conform to 2022 presentation.

È Includes tax charges related to the Kyndryl separation.

ÈÈ Includes $(1) million and $89 million in 2021 and 2020, respectively, related to discontinued operations of Microelectronics, divested in 2015.

Loss from discontinued operations before income taxes for the year ended December 31, 2022 primarily reflects the net impact of changes in separation-related estimates, the settlement of assets and liabilities in accordance with the separation and distribution agreement and a gain on sale of a joint venture historically managed by Kyndryl, which transferred to Kyndryl in the first quarter of 2022 upon receiving regulatory approval. The discontinued operations provision for income taxes for the year ended December 31, 2022, primarily reflects the impact of provision to return adjustments on the Kyndryl-related taxes.

Separation costs of $5 million, $1,042 million and $21 million incurred during the years ended December 31, 2022, 2021 and 2020, respectively, are included in income/(loss) from discontinued operations, net of tax, in the Consolidated Income Statement. These charges primarily relate to transaction and third-party support costs, business separation and applicable employee retention fees, pension settlement charges and related tax charges.

The following table presents selected financial information related to cash flows from discontinued operations.

($ in millions)

For the year ended December 31:	2022	2021	2020
Net cash provided by/(used in) operating activities	$ —	$1,612 *	$4,403
Net cash provided by/(used in) investing activities	48	(380)	(935)

* Excludes intercompany transactions between IBM and Kyndryl and general corporate overhead costs transferred to Kyndryl as discussed above.

NOTE D. REVENUE RECOGNITION

Disaggregation of Revenue

The following tables provide details of revenue by major products/service offerings, hybrid cloud revenue, and revenue by geography.

Revenue by Major Products/Service Offerings

($ in millions)

For the year ended December 31:	2022	2021	2020
Hybrid Platform & Solutions	$17,866	$17,036 *	$15,518 *
Transaction Processing	7,171	6,390	6,606
Total Software	$25,037	$23,426 *	$22,124 *
Business Transformation	$ 8,834	$ 8,284	$ 7,193
Application Operations	6,508	6,095	5,931
Technology Consulting	3,765	3,466	3,133
Total Consulting	$19,107	$17,844	$16,257
Hybrid Infrastructure	$ 9,451	$ 8,167	$ 8,415
Infrastructure Support	5,837	6,021	6,118
Total Infrastructure	$15,288	$14,188	$14,533
Financing**	$ 645	$ 774	$ 975
Other	$ 453	$ 1,119 *	$ 1,291 *
Total Revenue	$60,530	$57,350	$55,179

* Recast to reflect segment change.

** Contains lease and loan financing arrangements which are not subject to the guidance on revenue from contracts with customers.

Hybrid Cloud Revenue by Segment

($ in millions)

For the year ended December 31:	2022	2021	2020
Software	$ 9,321	$ 8,386 *	$ 6,517 *
Consulting	9,019	7,852	5,861
Infrastructure	3,895	3,645	4,039
Other	142	328 *	422 *
Total	$22,377	$20,210	$16,838

* Recast to reflect segment change.

Revenue by Geography

($ in millions)

For the year ended December 31:	2022	2021	2020
Americas	$31,057	$28,299	$27,119
Europe/Middle East/Africa	17,950	17,447	16,767
Asia Pacific	11,522	11,604	11,293
Total	$60,530	$57,350	$55,179

Remaining Performance Obligations

The remaining performance obligation (RPO) disclosure provides the aggregate amount of the transaction price yet to be recognized as of the end of the reporting period and an explanation as to when the company expects to recognize these amounts in revenue. It is intended to be a statement of overall work under contract that has not yet been performed and does not include contracts in which the customer is not committed, such as certain as-a-Service, governmental, term software license and services offerings. The customer is not considered committed when they are able to terminate for convenience without payment of a substantive penalty. The disclosure includes estimates of variable consideration, except when the variable consideration is a sales-based or usage-based royalty promised in exchange for a license of intellectual property. Additionally, as a practical expedient, the company does not include contracts that have an original duration of one year or less. RPO estimates are subject to change and are affected by several factors, including terminations, changes in the scope of contracts, periodic revalidations, adjustment for revenue that has not materialized and adjustments for currency.

At December 31, 2022, the aggregate amount of the transaction price allocated to RPO related to customer contracts that are unsatisfied or partially unsatisfied was $59 billion. Approximately 72 percent of the amount is expected to be recognized as revenue in the subsequent two years, approximately 26 percent in the subsequent three to five years and the balance thereafter.

Revenue Recognized for Performance Obligations Satisfied (or Partially Satisfied) in Prior Periods
For the year ended December 31, 2022, revenue was reduced by $55 million for performance obligations satisfied or partially satisfied in previous periods mainly due to changes in estimates on contracts with cost-to-cost measures of progress. Refer to note A, “Significant Accounting Policies,” for additional information on these contracts and estimates of costs to complete.

Reconciliation of Contract Balances
The following table provides information about notes and accounts receivable—trade, contract assets and deferred income balances.

($ in millions)

At December 31:	2022	2021
Notes and accounts receivable — trade (net of allowances of $233 in 2022 and $218 in 2021)	$ 6,541	$ 6,754
Contract assets*	464	471
Deferred income (current)	12,032	12,518
Deferred income (noncurrent)	3,499	3,577

* Included within prepaid expenses and other current assets in the Consolidated Balance Sheet.

The amount of revenue recognized during the year ended December 31, 2022 that was included within the deferred income balance at December 31, 2021 was $10.2 billion and primarily related to services and software.

The following table provides roll forwards of the notes and accounts receivable—trade allowance for expected credit losses for the years ended December 31, 2022 and 2021.

($ in millions)

January 1, 2022	Additions/(Releases)	Write-offs	Foreign currency and Other	December 31, 2022
$218	$ 59	$(31)	$ (14)	$233

January 1, 2021	Additions/(Releases)	Write-offs	Foreign currency and Other	December 31, 2021
$260	$(15)	$(28)	$ 1	$218

The contract assets allowance for expected credit losses was not material in the years ended December 31, 2022 and 2021.

Deferred Costs

($ in millions)

At December 31:	2022	2021
Capitalized costs to obtain a contract	$ 563	$ 476
Deferred costs to fulfill a contract		
Deferred setup costs	456	546
Other deferred fulfillment costs	814	1,000
Total deferred costs*	$1,833	$2,022

* Of the total deferred costs, $967 million was current and $866 million was noncurrent at December 31, 2022 and $1,097 million was current and $924 million was noncurrent at December 31, 2021.

The amount of total deferred costs amortized during the year ended December 31, 2022 was $1,609 million and there were no material impairment losses incurred. Refer to note A, “Significant Accounting Policies,” for additional information on deferred costs to fulfill a contract and capitalized costs of obtaining a contract.

NOTE E. SEGMENTS

In January 2022, IBM announced the divestiture of its healthcare software assets which closed in the second quarter of 2022. Refer to note F, "Acquisitions & Divestitures," for additional information. The company re-aligned its management structure to manage these assets outside of the Software segment prior to the divestiture. Beginning in the first quarter of 2022, the financial results of these assets are presented in Other–divested businesses. This change impacted the company's reportable segments, but did not impact its Consolidated Financial Statements. The prior-year periods have been recast to reflect this segment change.

The segments represent components of the company for which separate financial information is available that is utilized on a regular basis by the chief operating decision maker (the chief executive officer) in determining how to allocate resources and evaluate performance. The segments are determined based on several factors, including client base, homogeneity of products, technology, delivery channels and similar economic characteristics.

Certain transactions between the segments are recorded to other (income) and expense and are reflected in segment pre-tax income. These transactions predominately represent loans between Financing and Infrastructure segments to facilitate the acquisition of equipment and software used in IBM IaaS services arrangements.

The company utilizes globally integrated support organizations to realize economies of scale and efficient use of resources. As a result, a considerable amount of expense is shared by all of the segments. This shared expense includes sales coverage, certain marketing functions and support functions such as Accounting, Treasury, Procurement, Legal, Human Resources, Chief Information Office, and Billing and Collections. Where practical, shared expenses are allocated based on measurable drivers of expense, e.g., headcount. When a clear and measurable driver cannot be identified, shared expenses are allocated on a financial basis that is consistent with the company's management system, e.g., advertising expense is allocated based on the gross profits of the segments. A portion of the shared expenses, which are recorded in net income, are not allocated to the segments. These expenses are associated with the elimination of internal transactions and other miscellaneous items.

The following tables reflect the results of continuing operations of the company's segments consistent with the management and measurement system utilized within the company. Performance measurement is based on pre-tax income from continuing operations. These results are used by the chief operating decision maker, both in evaluating the performance of, and in allocating resources to, each of the segments.

Management System Segment View

($ in millions)

For the year ended December 31:	Software	Consulting	Infrastructure	Financing	Total Segments
2022					
Revenue	$ 25,037	$ 19,107	$ 15,288	$ 645	$ 60,077
Pre-tax income from continuing operations	6,162	1,677	2,262	340	10,441
Revenue year-to-year change	6.9 %	7.1 %	7.8 %	(16.6)%	6.8 %
Pre-tax income year-to-year change	27.1 %	15.7 %	11.7 %	(22.9)%	19.1 %
Pre-tax income margin	24.6 %	8.8 %	14.8 %	52.6 %	17.4 %
2021*					
Revenue	$ 23,426	$ 17,844	$ 14,188	$ 774	$ 56,231
Pre-tax income from continuing operations	4,849	1,449	2,025	441	8,765
Revenue year-to-year change	5.9 %	9.8 %	(2.4)%	(20.6)%	4.3 %
Pre-tax income year-to-year change	41.7 %	40.1 %	22.4 %	(1.8)%	33.6 %
Pre-tax income margin	20.7 %	8.1 %	14.3 %	57.0 %	15.6 %
2020*					
Revenue	$ 22,124	$ 16,257	$ 14,533	$ 975	$ 53,888
Pre-tax income from continuing operations**	3,423	1,034	1,654	449	6,561

* Recast to reflect segment change.

** Includes the impact of a $1.5 billion pre-tax charge for structural actions in the fourth quarter of 2020. The impact by segment was as follows: Software ($0.6 billion), Consulting ($0.4 billion) and Infrastructure ($0.4 billion). The impact to Financing was immaterial.

Reconciliations of IBM as Reported

($ in millions)

For the year ended December 31:	2022	2021 [1]	2020 [1]
Revenue			
Total reportable segments	$60,077	$56,231	$53,888
Other—divested businesses	318	785	904
Other revenue	135	335	387
Total revenue	$60,530	$57,350	$55,179

($ in millions)

For the year ended December 31:	2022	2021 [1]	2020 [1]
Pre-tax income from continuing operations			
Total reportable segments	$10,441	$ 8,765	$ 6,561 [2]
Amortization of acquired intangible assets	(1,747)	(1,838)	(1,832)
Acquisition-related charges	(18)	(43)	(13)
Non-operating retirement-related (costs)/income	(6,548)[3]	(1,282)	(1,073)
Kyndryl-related impacts [4]	(351)	118	—
Elimination of internal transactions	(10)	(7)	(28)
Other—divested businesses	91 [5]	(102)	(70)
Unallocated corporate amounts and other	(702)	(774)	(973)
Total pre-tax income from continuing operations	$ 1,156	$ 4,837	$ 2,572

(1) Recast to reflect segment change.
(2) Includes the impact of a $1.5 billion pre-tax charge for structural actions in the fourth quarter of 2020.
(3) Includes a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion. See note V, “Retirement-Related Benefits,” for additional information.
(4) Refer to note J, “Financial Assets & Liabilities,” for additional information.
(5) Includes a gain on the sale of the company's healthcare software assets. Refer to note F, "Acquisitions & Divestitures," for additional information.

Immaterial Items

Investment in Equity Alliances and Equity Alliances Gains/(Losses)

The investments in equity alliances and the resulting gains and (losses) from these investments that are attributable to the segments did not have a material effect on the financial position or the financial results of the segments.

Segment Assets and Other Items

Software assets are mainly goodwill, acquired intangible assets and accounts receivable. Consulting assets are primarily goodwill and accounts receivable. Infrastructure assets are primarily goodwill, plant, property and equipment, manufacturing inventory and accounts receivable. Financing assets are primarily financing receivables, and cash and marketable securities.

To ensure the efficient use of the company’s space and equipment, several segments may share leased or owned plant, property and equipment assets. Where assets are shared, landlord ownership of the assets is assigned to one segment and is not allocated to each user segment. This is consistent with the company’s management system and is reflected accordingly in the table below. In those cases, there will not be a precise correlation between segment pre-tax income and segment assets.

Depreciation expense and capital expenditures that are reported by each segment also are consistent with the landlord ownership basis of asset assignment.

Financing amounts for interest income reflect the income associated with Financing's external client transactions, as well as the income from investment in cash and marketable securities. Financing amounts for interest expense reflect the expense associated with intercompany loans and secured borrowings supporting Financing's external client transactions. These secured borrowings are included in note P, “Borrowings.” Intercompany financing activities are recorded to other (income) and expense and are reflected in segment pre-tax income.

Management System Segment View

($ in millions)

For the year ended December 31:	Software *	Consulting	Infrastructure	Financing	Total Segments
2022					
Assets	$ 57,186	$ 13,481	$ 12,243	$ 15,757	$ 98,667
Depreciation/amortization of intangibles**	968	289	1,403	14	2,674
Capital expenditures/investments in intangibles	446	33	853	27	1,359
Interest income	—	—	—	582	582
Interest expense	—	—	—	175	175
2021					
Assets	$ 58,420	$ 11,914	$ 11,766	$ 16,880	$ 98,980
Depreciation/amortization of intangibles**	983	250	1,399	49	2,681
Capital expenditures/investments in intangibles	559	55	792	33	1,439
Interest income	—	—	—	628	628
Interest expense	—	—	—	129	129
2020					
Assets	$ 57,436	$ 10,548	$ 12,378	$ 24,974	$ 105,336
Depreciation/amortization of intangibles**	1,007	207	1,419	120	2,753
Capital expenditures/investments in intangibles	538	26	1,093	41	1,699
Interest income	—	—	—	834	834
Interest expense	—	—	—	307	307

* Prior-year periods were recast to reflect segment change.
** Segment pre-tax income from continuing operations does not include the amortization of acquired intangible assets.

Reconciliations of IBM as Reported

($ in millions)

At December 31:	2022	2021 *	2020 *
Assets			
Total reportable segments	$ 98,667	$ 98,980	$105,336
Elimination of internal transactions	(1,062)	(1,608)	(4,686)
Other—divested businesses	100	1,109	1,376
Unallocated amounts			
Cash and marketable securities	8,138	6,222	12,463
Notes and accounts receivable	281	1,622	1,655
Deferred tax assets	6,078	7,158	8,175
Plant, other property and equipment	1,760	2,196	2,449
Operating right-of-use assets	1,586	1,945	2,368
Pension assets	8,236	9,848	7,557
Other	3,459	4,530	3,514
Total assets of discontinued operations	—	—	15,764
Total IBM consolidated assets	$127,243	$132,001	$155,971

* Recast to reflect segment change.

Major Clients

No single client represented 10 percent or more of the company's total revenue in 2022, 2021 or 2020.

Geographic Information

The following tables provide information for those countries that are 10 percent or more of the specific category.

Revenue*

($ in millions)

For the year ended December 31:	2022	2021	2020
United States	$25,098	$22,893	$22,258
Japan	5,453	5,648	5,680
Other countries	29,980	28,810	27,241
Total revenue	$60,530	$57,350	$55,179

* Revenues are attributed to countries based on the location of the client.

Plant and Other Property–Net

($ in millions)

At December 31:	2022	2021	2020
United States	$3,209	$3,375	$3,452
Other countries	2,100	2,293	2,656
Total*	$5,308	$5,668	$6,108

* Balances do not include rental machines.

Operating Right-of-Use Assets–Net

($ in millions)

At December 31:	2022	2021	2020
United States	$1,074	$1,148	$1,165
Japan	259	398	532
Other countries	1,545	1,676	1,870
Total	$2,878	$3,222	$3,566

Revenue by Classes of Similar Products or Services

The following table presents external revenue for similar classes of products or services within the company's reportable segments. Client solutions often include IBM software and systems and other suppliers' products if the client solution requires it. For each of the segments that include services, Software-as-a-Service, consulting, education, training and other product-related services are included as services. For each of these segments, software includes product license charges and ongoing subscriptions.

($ in millions)

For the year ended December 31:	2022	2021	2020
Software *			
Software	$21,374	$19,845	$18,771
Services	3,575	3,485	3,253
Systems	88	96	100
Consulting			
Services	$18,857	$17,563	$15,986
Software	170	173	183
Systems	80	108	89
Infrastructure			
Maintenance	$ 4,590	$ 4,743	$ 4,804
Servers	4,471	3,483 **	3,686 **
Services	2,653	2,616	2,656
Storage	1,989	1,919 **	1,824 **
Software	1,585	1,426	1,563
Financing			
Financing	$ 582	$ 628	$ 834
Used equipment sales	$ 64	$ 145	$ 140

* Prior-year periods were recast to reflect segment change.
** Recast to conform to 2022 presentation to present used equipment sales in servers and storage.

NOTE F. ACQUISITIONS & DIVESTITURES

Acquisitions

Purchase price consideration for all acquisitions was paid primarily in cash. All acquisitions, except otherwise stated, were for 100 percent of the acquired business and are reported in the Consolidated Statement of Cash Flows, net of acquired cash and cash equivalents.

2022

In 2022, the company completed eight acquisitions at an aggregate cost of $2,650 million. Each acquisition is expected to enhance the company's portfolio of products and services capabilities and further advance IBM's hybrid cloud and AI strategy.

Acquisition	Segment	Description of Acquired Business
First Quarter		
Envizi	Software	Data and analytics software provider for environmental performance management
Sentaca	Consulting	Telco consulting services and solutions provider specializing in automation, cloud migration, and future networks for telecommunications providers
Neudesic	Consulting	Application development and cloud computing services company
Second Quarter		
Randori	Software	Leading attack surface management (ASM) and cybersecurity provider
Databand.ai	Software	Proactive data observability platform that isolates data errors and issues to alert relevant stakeholders
Third Quarter		
Omnio	Software	Developer of software connectors used in the collection of raw data for various Industrial Internet of Things (IoT) applications
Fourth Quarter		
Dialexa	Consulting	Digital product engineering services firm
Octo	Consulting	IT modernization and digital transformation services provider exclusively serving the U.S. federal government

At December 31, 2022, the remaining cash to be remitted by the company related to certain 2022 acquisitions was $238 million, of which $139 million is expected to be paid in 2023 and the remaining amount is expected to be paid in 2024.

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of December 31, 2022.

($ in millions)

	Amortization Life (in Years)	Octo	Other Acquisitions
Current assets		$ 119	$ 87
Property, plant and equipment/noncurrent assets		13	7
Intangible assets			
Goodwill	N/A	826	1,062
Client relationships	7	370	204
Completed technology	4—7	30	90
Trademarks	2—3	15	10
Total assets acquired		$1,374	$ 1,460
Current liabilities		54	51
Noncurrent liabilities		57	22
Total liabilities assumed		$ 110	$ 73
Total purchase price		$1,263	$ 1,387

N/A–Not applicable

The goodwill generated is primarily attributable to the assembled workforce of the acquired businesses and the increased synergies expected to be achieved from the integration of the acquired businesses into the company's various integrated solutions and services neither of which qualifies as an amortizable intangible asset.

The valuation of the assets acquired and liabilities assumed is subject to revision. If additional information becomes available, the company may further revise the purchase price allocation as soon as practical, but no later than one year from the acquisition date; however, material changes are not expected.

Octo–The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.0 years. Goodwill of $706 million and $120 million was assigned to the Consulting and Software segments, respectively. It is expected that 24 percent of the goodwill will be deductible for tax purposes.

Other acquisitions–The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.7 years. Goodwill of $624 million and $438 million was assigned to the Consulting and Software segments, respectively. It is expected that 52 percent of the goodwill will be deductible for tax purposes.

The identified intangible assets will be amortized on a straight-line basis over their useful lives, which approximates the pattern that the assets' economic benefits are expected to be consumed over time.

2023 Transactions–In February 2023, the company acquired StepZen, Inc., developer of GraphQL to help build application programming interfaces (APIs) quickly and with less code. StepZen will be integrated into the Software segment. The financial terms related to the acquisition were not material. Additionally, in February 2023, the company signed a definitive agreement to acquire NS1, a leading provider of network automation SaaS solutions. Upon closing, NS1 will be integrated into the Software segment. The transaction is expected to close in the first half of 2023, subject to customary closing conditions, including regulatory clearance.

2021

In 2021, the company completed fifteen acquisitions at an aggregate cost of $3,341 million.

Acquisition	Segment	Description of Acquired Business
First Quarter		
Nordcloud	Consulting	Consulting company providing services in cloud implementation, application transformation and managed services
Taos Mountain, LLC (Taos)	Consulting	Leading cloud professional and managed services provider
StackRox	Software	Innovator in container and Kubernetes-native security
Second Quarter		
Turbonomic, Inc. (Turbonomic)	Software	Application Resource Management and Network Performance Management software provider
ECX Copy Data Management business from Catalogic Software, Inc.	Software	Smart data protection solution
Waeg	Consulting	Leading Salesforce consulting partner
myInvenio	Software	Process mining software company
Third Quarter		
VEVRE Software business from Volta, Inc.	Software	Cloud-native virtual routing engine
BoxBoat Technologies	Consulting	Premier DevOps consultancy and enterprise Kubernetes certified service provider
Bluetab Solutions Group	Consulting	Data solutions service provider
Fourth Quarter		
SXiQ Digital Pty Ltd	Consulting	Digital transformation services company specializing in cloud applications, cloud platforms and cloud cybersecurity
McD Tech Labs from McDonald’s	Software	Asset purchase to accelerate the development and deployment of McDonald’s Automated Order Taking (AOT) technology
ReaQta	Software	Provider of endpoint security solutions designed to leverage AI to automatically identify and manage threats
Adobe Workfront practice from Rego Consulting Corporation	Consulting	Work management software consulting for enterprise clients
Phlyt	Software	Cloud-native development consultancy

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of December 31, 2022. Net purchase price adjustments recorded in 2022 primarily related to deferred tax assets and liabilities.

($ in millions)

	Amortization Life (in Years)	Turbonomic	Other Acquisitions
Current assets		$ 115	$ 112
Property, plant and equipment/noncurrent assets		11	18
Intangible assets			
Goodwill	N/A	1,390	1,073
Client relationships	4—10	309	196
Completed technology	4—7	117	206
Trademarks	1—6	15	31
Total assets acquired		$ 1,957	$ 1,636
Current liabilities		73	68
Noncurrent liabilities		55	56
Total liabilities assumed		$ 128	$ 124
Total purchase price		$ 1,829	$ 1,512

N/A–Not applicable

The goodwill generated is primarily attributable to the assembled workforce of the acquired businesses and the increased synergies expected to be achieved from the integration of the acquired businesses into the company's various integrated solutions and services neither of which qualifies as an amortizable intangible asset.

Turbonomic–The overall weighted-average useful life of the identified amortizable intangible assets acquired was 9.0 years. Goodwill of $1,325 million and $65 million was assigned to the Software and Consulting segments, respectively. It is expected that none of the goodwill will be deductible for tax purposes.

Other acquisitions–The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.6 years. Goodwill of $633 million and $440 million was assigned to the Consulting and Software segments, respectively. It is expected that nine percent of the goodwill will be deductible for tax purposes.

The identified intangible assets will be amortized on a straight-line basis over their useful lives, which approximates the pattern that the assets' economic benefits are expected to be consumed over time.

2020

In 2020, the company completed seven acquisitions at an aggregate cost of $723 million.

Acquisition	Segment	Description of Acquired Business
First Quarter		
Stratoss Lifecycle Manager business (Stratoss) from Accanto Systems Oy	Software	Cloud native business designed to deliver web-scale levels of operational automation for the cloud-based networking world
Second Quarter		
Automated Security Assurance Platform business (ASAP) from Spanugo Inc.	Software	Cloud cybersecurity platform, integrated into the IBM public cloud to further meet the security demands of clients in highly regulated industries
Third Quarter		
WDG Soluções Em Sistemas E Automação De Processos LTDA (WDG Automation)	Software	Provider of robotic process automation
Fourth Quarter		
Instana	Software	Application performance monitoring and observability company which helps businesses better manage applications that span the hybrid cloud landscape
TruQua Enterprises, LLC (TruQua)	Consulting	IT services provider and SAP development partner
Expertus Technologies Inc. (Expertus)	Consulting	Provider of cloud solutions for the financial services industry
7Summits LLC (7Summits)	Consulting	Leading Salesforce partner that delivers transformative digital experiences across industries

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of December 31, 2020.

($ in millions)

	Amortization Life (in Years)	Allocated Amount
Current assets		$ 35
Property, plant and equipment/noncurrent assets		7
Intangible assets		
Goodwill	N/A	575
Client relationships	5—7	84
Completed technology	2—7	73
Trademarks	1—7	11
Total assets acquired		$ 784
Current liabilities		19
Noncurrent liabilities		41
Total liabilities assumed		$ 61
Total purchase price		$ 723

N/A—Not applicable

The goodwill generated is primarily attributable to the assembled workforce of the acquired businesses and the increased synergies expected to be achieved from the integration of the acquired businesses into the company's various integrated solutions and services neither of which qualifies as an amortizable intangible asset.

The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.8 years. These identified intangible assets will be amortized on a straight-line basis over their useful lives, which approximates the pattern that the assets' economic benefits are expected to be consumed over time. Goodwill of $362 million, $205 million and $8 million was assigned to the

Software, Consulting and Infrastructure segments, respectively. The goodwill recorded as a result of these acquisitions was not deductible for tax purposes.

Divestitures

2022

Healthcare Software Assets–In January 2022, IBM and Francisco Partners (Francisco) signed a definitive agreement in which Francisco would acquire IBM's healthcare data and analytics assets reported within Other–divested businesses for $1,065 million. Refer to note E, "Segments," for additional information. The assets included Health Insights, MarketScan, Clinical Development, Social Program Management, Micromedex, and imaging software offerings. In addition, IBM is providing Francisco with transition services including IT and other services. The closing completed for the U.S. and Canada on June 30, 2022 and subsequent closings were completed in most other countries during the second half of 2022. The company expects to close the remaining countries by the first half of 2023.

On June 30, 2022, the company received a cash payment of $1,065 million. The total pre-tax gain recognized on this transaction as of December 31, 2022 was $258 million and was recorded in other (income) and expense in the Consolidated Income Statement. Any pre-tax gains related to the subsequent wave closings are not expected to be material. The total gain on sale may change in the future due to changes in transaction estimates however, such changes are not expected to be material.

Other Divestitures–In the first quarter of 2022, the Infrastructure segment completed one divestiture. The financial terms related to this transaction were not material.

2021

Kyndryl–On November 3, 2021, the company completed the separation of Kyndryl. Refer to note C, "Separation of Kyndryl," for additional information.

Other Divestitures–In 2021, the company completed two divestitures reported in the Software segment and one divestiture reported in Other–divested businesses. In the third quarter of 2021, IBM completed the sale of the company's remaining OEM commercial financing capabilities reported within the Financing segment. The financial terms related to each of these transactions did not have a material impact to IBM's Consolidated Financial Statements.

2020

There were no divestitures completed during the year ended December 31, 2020.

NOTE G. RESEARCH, DEVELOPMENT & ENGINEERING

RD&E expense was $6,567 million in 2022, $6,488 million in 2021 and $6,262 million in 2020.

The company incurred total expense of $6,267 million, $6,216 million and $5,968 million in 2022, 2021 and 2020, respectively, for scientific research and the application of scientific advances to the development of new and improved products and their uses, as well as services and their application. Within these amounts, software-related expense was $3,971 million, $3,922 million and $3,682 million in 2022, 2021 and 2020, respectively.

Expense for product-related engineering was $299 million, $272 million and $295 million in 2022, 2021 and 2020, respectively.

NOTE H. TAXES

($ in millions)

For the year ended December 31:	2022	2021	2020
Income/(loss) from continuing operations before income taxes			
U.S. operations	$(6,602)*	$(2,654)	$(2,349)
Non-U.S. operations	7,758	7,491	4,921
Total income from continuing operations before income taxes	$ 1,156	$ 4,837	$ 2,572

* Includes the impact of a one-time, non-cash pension settlement charge. Refer to note V, "Retirement-Related Benefits," for additional information.

The income from continuing operations provision for/(benefit from) income taxes by geographic operations was as follows:

($ in millions)

For the year ended December 31:	2022	2021	2020
U.S. operations	$(2,272)	$ (969)	$ 1,913
Non-U.S. operations	1,645	1,093	(3,273)
Total continuing operations provision for/(benefit from) income taxes	$ (626)	$ 124	$(1,360)

The components of the income from continuing operations provision for/(benefit from) income taxes by taxing jurisdiction were as follows:

($ in millions)

For the year ended December 31:	2022	2021	2020
U.S. federal			
Current	$ 391	$ 374	$ 312
Deferred	(2,645)	(1,358)	1,102
	$(2,253)	$ (984)	$ 1,414
U.S. state and local			
Current	$ 184	$ 161	$ 345
Deferred	(486)	(370)	(358)
	$ (302)	$ (209)	$ (13)
Non-U.S.			
Current	$ 1,676	$ 1,342	$ 1,208
Deferred	252	(25)	(3,969)
	$ 1,929	$ 1,317	$(2,761)
Total continuing operations provision for/(benefit from) income taxes	$ (626)	$ 124	$(1,360)
Discontinued operations provision for/(benefit from) income taxes	$ 124	$ 714	$ 484
Total provision for/(benefit from) income taxes	$ (503)	$ 838	$ (876)

In addition to the total provision for/(benefit from) income taxes, the company also recorded a provision included in net income for social security, real estate, personal property and other taxes of approximately $2.8 billion in 2022. The total taxes included in net income was approximately $2.3 billion in 2022.

A reconciliation of the statutory U.S. federal tax rate to the company's effective tax rate from continuing operations was as follows:

For the year ended December 31:	2022	2021	2020
Statutory rate	21 %	21 %	21 %
Tax differential on foreign income	(29)*	(10)	(31)
Intra-entity IP sale	—	—	(37)
Domestic incentives	(24)*	(5)	(9)
State and local	(21)*	(3)	0
Other	(1)*	0	3
Effective rate	(54)%	3 %	(53)%

* Includes the impacts of the pension settlement charge on tax differential on foreign income, domestic incentives, state and local, and other of (24) points, (20) points, (21) points, and (1) point, respectively.

Percentages rounded for disclosure purposes.

The significant components reflected within the tax rate reconciliation labeled “Tax differential on foreign income” include the effects of foreign subsidiaries’ earnings taxed at rates other than the U.S. statutory rate, U.S. taxes on foreign income and any net impacts of intercompany transactions. These items also reflect audit settlements or changes in the amount of unrecognized tax benefits associated with each of these items.

The continuing operations effective tax rate for 2022 was (54.2) percent compared to 2.6 percent in 2021. The current-year effective tax rate was primarily driven by the transfer of a portion of the Qualified PPP’s defined benefit pension obligations and related plan assets. Refer to note V, “Retirement-Related Benefits,” for additional information. The prior-year effective tax rate was primarily driven by tax benefits related to audit settlements in multiple jurisdictions. The 2020 effective tax rate was primarily driven by an intra-entity sale of certain of the company’s intellectual property which required the recognition of a deferred tax asset.

The effect of tax law changes on deferred tax assets and liabilities did not have a material impact on the company’s 2022 effective tax rate.

Deferred Tax Assets

($ in millions)

At December 31:	2022	2021
Retirement benefits	$ 1,954	$ 3,142
Leases	927	1,061
Share-based and other compensation	608	661
Domestic tax loss/credit carryforwards	1,798	1,619
Deferred income	633	630
Foreign tax loss/credit carryforwards	845	983
Bad debt, inventory and warranty reserves	383	390
Depreciation	247	249
Restructuring charges	101	216
Accruals	215	305
Intangible assets	2,879	2,929
Capitalized research and development	3,012	2,161
Other	1,157	1,306 *
Gross deferred tax assets	14,759	15,652
Less: valuation allowance	770	883
Net deferred tax assets	$13,989	$14,769

* Recast to include 2021 hedging losses in other.

Deferred Tax Liabilities

($ in millions)

At December 31:	2022	2021
Goodwill and intangible assets	$ 3,156	$ 3,306 *
GILTI deferred taxes	2,483	3,257
Leases and right-of-use assets	1,174	1,314
Depreciation	505	518
Retirement benefits	1,609	1,971
Deferred transition costs	56	42
Undistributed foreign earnings	87	131
Other	955	817
Gross deferred tax liabilities	$10,025	$11,356

* Recast to conform to 2022 presentation to include software development costs in goodwill and intangible assets.

For financial reporting purposes, the company had foreign and domestic loss carryforwards, the tax effect of which was $722 million, as well as foreign and domestic credit carryforwards of $1,921 million. Substantially all of these carryforwards are available for at least two years and the majority are available for 10 years or more.

The valuation allowances as of December 31, 2022, 2021 and 2020 were $770 million, $883 million and $850 million, respectively. The amounts principally apply to certain foreign and domestic loss carryforwards and credits. In the opinion of management, it is more likely than not that these assets will not be realized. However, to the extent that tax benefits related to these carryforwards are realized in the future, the reduction in the valuation allowance will reduce income tax expense.

The amount of unrecognized tax benefits at December 31, 2022 increased by $19 million in 2022 to $8,728 million. A reconciliation of the beginning and ending amount of unrecognized tax benefits was as follows:

($ in millions)

	2022	2021	2020
Balance at January 1	$8,709	$8,568	$7,146
Additions based on tax positions related to the current year	355	934	1,690
Additions for tax positions of prior years	174	247	159
Reductions for tax positions of prior years (including impacts due to a lapse of statute)	(470)	(688)	(408)
Settlements	(41)	(352)	(19)
Balance at December 31	$8,728	$8,709	$8,568

The additions to unrecognized tax benefits related to the current and prior years were primarily attributable to non-U.S. tax matters, including transfer pricing, as well as U.S. federal and state tax matters, credits and incentives. The settlements and reductions to unrecognized tax benefits for tax positions of prior years were primarily attributable to non-U.S. audits, U.S. federal and state tax matters, impacts due to lapse of statute of limitations and foreign currency translation adjustments.

The unrecognized tax benefits at December 31, 2022 of $8,728 million can be reduced by $537 million associated with timing adjustments, potential transfer pricing adjustments and state income taxes. The net amount of $8,191 million, if recognized, would favorably affect the company's effective tax rate. The net amounts at December 31, 2021 and 2020 were $8,163 million and $7,994 million, respectively.

Interest and penalties related to income tax liabilities are included in income tax expense. During the years ended December 31, 2022, 2021 and 2020, the company recognized $185 million, $125 million and $117 million, respectively, in interest expense and penalties. The company had $956 million and $935 million for the payment of interest and penalties accrued at December 31, 2022 and December 31, 2021, respectively.

Within the next 12 months, the company believes it is reasonably possible that the total amount of unrecognized tax benefits associated with certain positions may be reduced. The potential decrease in the amount of unrecognized tax benefits is associated with certain non-U.S. positions that are expected to be recognized due to a lapse in statute of limitations, as well as anticipated resolution of various non-U.S. audits. The company estimates that the unrecognized tax benefits at December 31, 2022 could be reduced by $168 million.

During the fourth quarter of 2020, the U.S. Internal Revenue Service (IRS) concluded its examination of the company's U.S. income tax returns for 2013 and 2014, which had a specific focus on certain cross-border transactions that occurred in 2013 and issued a final Revenue Agent's Report (RAR). The IRS' proposed adjustments relative to these cross-border transactions, if sustained, would result in additional taxable income of approximately $4.5 billion. The company strongly disagrees with the IRS on these specific matters and filed its IRS Appeals protest in the first quarter of 2021. In the third quarter of 2018, the IRS commenced its audit of the company's U.S. tax returns for 2015 and 2016. The company anticipates that this audit will be completed in 2023. In the fourth quarter of 2021, the IRS commenced its audit of the company's U.S. tax returns for 2017 and 2018. With respect to major U.S. state and foreign taxing jurisdictions, the company is generally no longer subject to tax examinations for years prior to 2015. The company is no longer subject to income tax examination of its U.S. federal tax return for years prior to 2013. The open years contain matters that could be subject to differing interpretations of applicable tax laws and regulations as it relates to the amount and/or timing of income, deductions, and tax credits. Although the outcome of tax audits is always uncertain, the company believes that adequate amounts of tax, interest and penalties have been provided for any adjustments that are expected to result for these years.

The company is involved in a number of income tax-related matters in India challenging tax assessments issued by the India Tax Authorities. As of December 31, 2022, the company had recorded $689 million as prepaid income taxes in India. A significant portion of this balance represents cash tax deposits paid over time to protect the company's right to appeal various income tax assessments made by the India Tax Authorities. Although the outcome of tax audits are always uncertain, the company believes that adequate amounts of tax, interest and penalties have been provided for any adjustments that are expected to result for these years.

Within consolidated retained earnings at December 31, 2022 were undistributed after-tax earnings from certain non-U.S. subsidiaries that were not indefinitely reinvested. At December 31, 2022, the company had a deferred tax liability of $87 million for the estimated taxes associated with the repatriation of these earnings. Undistributed earnings of approximately $384 million and other outside basis differences in foreign subsidiaries were indefinitely reinvested in foreign operations. Quantification of the deferred tax liability, if any, associated with indefinitely reinvested earnings and outside basis differences was not practicable.

NOTE I. EARNINGS PER SHARE

The following table presents the computation of basic and diluted earnings per share of common stock.

($ in millions except per share amounts)

For the year ended December 31:	2022	2021	2020
Weighted-average number of shares on which earnings per share calculations are based			
Basic	902,664,190	895,990,771	890,348,679
Add—incremental shares under stock-based compensation plans	7,593,455	6,883,290	4,802,940
Add—incremental shares associated with contingently issuable shares	2,011,417	1,766,940	1,412,352
Assuming dilution	912,269,062	904,641,001	896,563,971
Income from continuing operations	$1,783	$4,712	$3,932
Income/(loss) from discontinued operations, net of tax	(143)	1,030	1,658
Net income on which basic earnings per share is calculated	$1,639	$5,743	$5,590
Income from continuing operations	$1,783	$4,712	$3,932
Net income applicable to contingently issuable shares	—	—	(2)
Income from continuing operations on which diluted earnings per share is calculated	$1,783	$4,712	$3,930
Income/(loss) from discontinued operations, net of tax, on which basic and diluted earnings per share is calculated	(143)	1,030	1,658
Net income on which diluted earnings per share is calculated	$1,639	$5,743	$5,588
Earnings/(loss) per share of common stock			
Assuming dilution			
Continuing operations	$ 1.95	$ 5.21	$ 4.38
Discontinued operations	(0.16)	1.14	1.85
Total	$ 1.80	$ 6.35	$ 6.23
Basic			
Continuing operations	$ 1.97	$ 5.26	$ 4.42
Discontinued operations	(0.16)	1.15	1.86
Total	$ 1.82	$ 6.41	$ 6.28

Weighted-average stock options to purchase 814,976 common shares in 2022, 980,505 common shares in 2021 and 1,417,665 common shares in 2020 were outstanding, but were not included in the computation of diluted earnings per share because the exercise price of the options was greater than the average market price of the common shares for the full year, and therefore, the effect would have been antidilutive.

NOTE J. FINANCIAL ASSETS & LIABILITIES

Fair Value Measurements

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table presents the company's financial assets and financial liabilities that are measured at fair value on a recurring basis at December 31, 2022 and 2021.

($ in millions)

At December 31:	Fair Value Hierarchy Level	2022 Assets [8]	2022 Liabilities [9]	2021 Assets [8]	2021 Liabilities [9]
Cash equivalents [1]					
Time deposits and certificates of deposit [2]	2	$ 3,712	N/A	$ 2,502 [10]	N/A
Money market funds	1	306	N/A	263	N/A
Total cash equivalents		$ 4,018	N/A	$ 2,766	N/A
Equity investments [3]	1	—	N/A	0	N/A
Kyndryl common stock [4]	1	—	N/A	807	N/A
Debt securities–current [2][5]	2	852	N/A	600	N/A
Debt securities–noncurrent [2][6]	2,3	31	N/A	37	N/A
Derivatives designated as hedging instruments					
Interest rate contracts	2	3	336	12	—
Foreign exchange contracts	2	184	674	359	117
Derivatives not designated as hedging instruments					
Foreign exchange contracts	2	42	16	21	42
Equity contracts [7]	1,2	49	8	6	4
Total		$ 5,179	$1,034	$ 4,608	$ 162

(1) Included within cash and cash equivalents in the Consolidated Balance Sheet.

(2) Available-for-sale debt securities with carrying values that approximate fair value.

(3) Included within investments and sundry assets in the Consolidated Balance Sheet.

(4) Refer to "Kyndryl Common Stock" below for additional information.

(5) U.S. treasury bills and term deposits that are reported within marketable securities in the Consolidated Balance Sheet.

(6) Includes immaterial activity related to private company investments reported within investments and sundry assets in the Consolidated Balance Sheet.

(7) Level 1 includes immaterial amounts related to equity futures contracts.

(8) The gross balances of derivative assets contained within prepaid expenses and other current assets, and investments and sundry assets in the Consolidated Balance Sheet at December 31, 2022 were $271 million and $7 million, respectively, and at December 31, 2021 were $358 million and $40 million, respectively.

(9) The gross balances of derivative liabilities contained within other accrued expenses and liabilities, and other liabilities in the Consolidated Balance Sheet at December 31, 2022 were $546 million and $488 million, respectively, and at December 31, 2021 were $60 million and $103 million, respectively.

(10) Recast to conform to 2022 presentation.

N/A–Not applicable

Kyndryl Common Stock

On November 3, 2021, IBM completed the separation of Kyndryl and retained 19.9 percent of the shares of Kyndryl common stock with the intent to dispose of the shares within twelve months of the separation.

On May 18, 2022, the company borrowed an aggregate principal amount of $357 million under a short-term credit facility with a third-party financial institution, the proceeds of which were used to repay certain of the company's existing indebtedness. On May 23, 2022, the company completed a debt-for-equity exchange where 22.3 million shares of Kyndryl common stock, equal to half of the company's 19.9 percent retained interest (the Shares), were exchanged at a strike price of $13.95 per share to extinguish $311 million of the company's indebtedness under the short-term credit facility (the May 2022 Exchange). The remaining portion of the short-term credit facility was repaid with $46 million of cash.

In connection with the May 2022 Exchange, the company entered into a cash-settled swap with the lender of the short-term credit facility as the counterparty that maintained IBM's continued economic exposure in the Shares. As a result of the swap, the transfer of the Shares pursuant to the May 2022 Exchange did not qualify as a true sale, and therefore the Shares and debt remained on the company's Consolidated Balance Sheet. Upon settlement of the swap, which occurred on November 2, 2022, IBM paid the lender $83 million, which was derived from the difference between the volume-weighted average price (VWAP) of the Kyndryl shares over the outstanding term of the swap and the strike price of $13.95 per share. The realized loss of $83 million was reflected in other (income) and expense within the company's Consolidated Income Statement for the year ended December 31, 2022. In addition, both the Shares and debt associated with the May 2022 Exchange were entirely derecognized from the company's Consolidated Balance Sheet in the fourth quarter of 2022 upon settlement of the swap. The debt-for-equity exchange associated with the May 2022 Exchange is reflected as a non-cash financing activity for purposes of the company's Consolidated Statement of Cash Flows for the year ended December 31, 2022.

On August 5, 2022, the company borrowed an aggregate principal amount of $300 million under a short-term credit facility with a third-party financial institution, the proceeds of which were used to repay certain of the company's existing indebtedness. On August 11, 2022, the company completed a debt-for-equity exchange through the transfer of the other 22.3 million shares of Kyndryl common stock to extinguish $229 million of the company's indebtedness under the short-term credit facility (the August 2022 Exchange). The remaining portion of the short-term credit facility was repaid with $71 million of cash. The debt-for-equity exchange associated with the August 2022 Exchange is a non-cash financing activity for purposes of the company's Consolidated Statement of Cash Flows for the year ended December 31, 2022.

At December 31, 2022, the company no longer held an ownership interest in Kyndryl. The Kyndryl common stock of $807 million at December 31, 2021 was included within prepaid expenses and other current assets in the Consolidated Balance Sheet. For the year ended December 31, 2022, the company recognized a total realized loss of $351 million, including $267 million on the Kyndryl shares and $83 million on the swap, compared to an unrealized gain of $126 million on the Kyndryl shares for the year ended December 31, 2021 which is reflected in other (income) and expense in the Consolidated Income Statement.

Financial Assets and Liabilities Not Measured at Fair Value

Short-Term Receivables and Payables

Short-term receivables (excluding the current portion of long-term receivables) and other investments are financial assets with carrying values that approximate fair value. Accounts payable, other accrued expenses and short-term debt (excluding the current portion of long-term debt and including short-term finance lease liabilities) are financial liabilities with carrying values that approximate fair value. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy, except for short-term debt which would be classified as Level 2.

Loans and Long-Term Receivables

Fair values are based on discounted future cash flows using current interest rates offered for similar loans to clients with similar credit ratings for the same remaining maturities. At December 31, 2022 and 2021, the difference between the carrying amount and estimated fair value for loans and long-term receivables was immaterial. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy.

Long-Term Debt

Fair value of publicly traded long-term debt is based on quoted market prices for the identical liability when traded as an asset in an active market. For other long-term debt (including long-term finance lease liabilities) for which a quoted market price is not available, an expected present value technique that uses rates currently available to the company for debt with similar terms and remaining maturities is used to estimate fair value. The carrying amount of long-term debt was $46,189 million and $44,917 million, and the estimated fair value was $42,514 million and $49,465 million at December 31, 2022 and 2021, respectively. If measured at fair value in the financial statements, long-term debt (including the current portion) would be classified as Level 2 in the fair value hierarchy.

NOTE K. INVENTORY

($ in millions)

At December 31:	2022	2021
Finished goods	$ 158	$ 208
Work in process and raw materials	1,394	1,442
Total	$1,552	$1,649

NOTE L. FINANCING RECEIVABLES

Financing receivables primarily consist of client loan and installment payment receivables (loans), investment in sales-type and direct financing leases (collectively referred to as client financing receivables) and commercial financing receivables. Loans are provided primarily to clients to finance the purchase of hardware, software and services. Payment terms on these financing arrangements are for terms up to seven years. Investment in sales-type and direct financing leases relate principally to the company's Infrastructure products and are for terms ranging generally from two to six years. Commercial financing receivables, which consist of both held-for-investment and held-for-sale receivables, relate primarily to working capital financing for dealers and remarketers of IBM products. Payment terms for working capital financing generally range from 30 to 90 days.

A summary of the components of the company's financing receivables is presented as follows:

($ in millions)

	Client Financing Receivables		Commercial Financing Receivables		
At December 31, 2022:	**Client Loan and Installment Payment Receivables (Loans)**	**Investment in Sales-Type and Direct Financing Leases**	**Held for Investment**	**Held for Sale ***	**Total**
Financing receivables, gross	$ 8,875	$ 4,023	$ 299	$ 939	$14,136
Unearned income	(439)	(351)	—	—	(790)
Unguaranteed residual value	—	422	—	—	422
Amortized cost	$ 8,437	$ 4,094	$ 299	$ 939	$13,769
Allowance for credit losses	(108)	(60)	(5)	—	(173)
Total financing receivables, net	$ 8,329	$ 4,034	$ 293	$ 939	$13,596
Current portion	$ 5,073	$ 1,485	$ 293	$ 939	$ 7,790
Noncurrent portion	$ 3,256	$ 2,549	$ —	$ —	$ 5,806

($ in millions)

	Client Financing Receivables		Commercial Financing Receivables		
At December 31, 2021:	**Client Loan and Installment Payment Receivables (Loans)**	**Investment in Sales-Type and Direct Financing Leases**	**Held for Investment**	**Held for Sale ***	**Total**
Financing receivables, gross	$ 9,303	$ 3,336	$ 450	$ 793	$13,881
Unearned income	(353)	(223)	—	—	(576)
Unguaranteed residual value	—	335	—	—	335
Amortized cost	$ 8,949	$ 3,448	$ 450	$ 793	$13,640
Allowance for credit losses	(131)	(64)	(6)	—	(201)
Total financing receivables, net	$ 8,818	$ 3,384	$ 444	$ 793	$13,439
Current portion	$ 5,371	$ 1,406	$ 444	$ 793	$ 8,014
Noncurrent portion	$ 3,447	$ 1,978	$ —	$ —	$ 5,425

* The carrying value of the receivables classified as held for sale approximates fair value.

The company has a long-standing practice of taking mitigation actions, in certain circumstances, to transfer credit risk to third parties. These actions may include credit insurance, financial guarantees, nonrecourse secured borrowings, transfers of receivables recorded as true sales in accordance with accounting guidance or sales of equipment under operating lease. Sale of receivables arrangements are also utilized in the normal course of business as part of the company's cash and liquidity management.

Financing receivables pledged as collateral for secured borrowings were $349 million and $408 million at December 31, 2022 and 2021, respectively. These borrowings are included in note P, "Borrowings."

Transfer of Financial Assets

The company has an existing agreement with a third-party investor to sell IBM short-term commercial financing receivables on a revolving basis. The company has expanded this agreement to other countries and geographies since commencement in the U.S. and Canada in 2020. In addition, the company enters into agreements with third-party financial institutions to sell certain of its client financing receivables, including both loan and lease receivables, for cash proceeds. In 2022, sales of client financing receivables were largely focused on credit mitigation. During 2021, sales of client financing receivables were utilized as part of the company's cash and liquidity management as well as for credit mitigation.

The following table presents the total amount of commercial and client financing receivables transferred.

($ in millions)

For the year ended December 31:	2022	2021
Commercial financing receivables		
Receivables transferred during the period	$9,029	$7,359
Receivables uncollected at end of period*	$1,561	$1,653
Client financing receivables		
Lease receivables	$ 15	$ 819
Loan receivables	2	2,224
Total client financing receivables transferred	$ 17	$3,043

* Of the total amount of commercial financing receivables sold and derecognized from the Consolidated Balance Sheet, the amounts presented remained uncollected from business partners as of December 31, 2022 and 2021.

The transfer of these receivables qualified as true sales and therefore reduced financing receivables. The cash proceeds from the sales are included in cash flows from operating activities. The impacts to the Consolidated Income Statement including fees and net loss associated with the transfer of commercial financing receivables were $62 million for the year ended December 31, 2022. The fees and net loss recorded in 2021 associated with the transfer of client and commercial financing receivables were not material.

Financing Receivables by Portfolio Segment

The following tables present the amortized cost basis for client financing receivables at December 31, 2022 and 2021, further segmented by three classes: Americas, Europe/Middle East/Africa (EMEA) and Asia Pacific. The commercial financing receivables portfolio segment is excluded from the tables in the sections below as the receivables are short term in nature and the current estimated risk of loss and resulting impact to the company's financial results are not material.

($ in millions)

At December 31, 2022:	Americas	EMEA	Asia Pacific	Total
Amortized cost	$7,281	$3,546	$ 1,704	$12,531
Allowance for credit losses				
Beginning balance at January 1, 2022	$ 111	$ 61	$ 23	$ 195
Write-offs	(20)	(3)	(2)	(25)
Recoveries	1	0	4	5
Additions/(releases)	(5)	6	(4)	(3)
Other*	2	(5)	(2)	(4)
Ending balance at December 31, 2022	$ 88	$ 60	$ 20	$ 168

($ in millions)

At December 31, 2021:	Americas	EMEA	Asia Pacific	Total
Amortized cost	$6,573	$3,793	$ 2,031	$12,397
Allowance for credit losses				
Beginning balance at January 1, 2021	$ 141	$ 77	$ 37	$ 255
Write-offs	(8)	(2)	(7)	(17)
Recoveries	0	0	1	1
Additions/(releases)	(19)	(11)	(7)	(38)
Other*	(3)	(3)	0	(7)
Ending balance at December 31, 2021	$ 111	$ 61	$ 23	$ 195

* Primarily represents translation adjustments.

When determining the allowances, financing receivables are evaluated either on an individual or a collective basis. For the company's policy on determining allowances for credit losses, refer to note A, "Significant Accounting Policies."

Past Due Financing Receivables

The company summarizes information about the amortized cost basis for client financing receivables, including amortized cost aged over 90 days and still accruing, billed invoices aged over 90 days and still accruing, and amortized cost not accruing.

($ in millions)

At December 31, 2022:	Total Amortized Cost	Amortized Cost > 90 Days *	Amortized Cost > 90 Days and Accruing *	Billed Invoices > 90 Days and Accruing	Amortized Cost Not Accruing **
Americas	$ 7,281	$272	$ 198	$ 22	$ 74
EMEA	3,546	52	8	1	46
Asia Pacific	1,704	20	3	1	17
Total client financing receivables	$ 12,531	$344	$ 208	$ 23	$137

($ in millions)

At December 31, 2021:	Total Amortized Cost	Amortized Cost > 90 Days *	Amortized Cost > 90 Days and Accruing *	Billed Invoices > 90 Days and Accruing	Amortized Cost Not Accruing **
Americas	$ 6,573	$188	$ 100	$ 6	$ 90
EMEA	3,793	99	7	2	95
Asia Pacific	2,031	25	5	2	20
Total client financing receivables	$12,397	$312	$ 112	$ 10	$205

* At a contract level, which includes total billed and unbilled amounts for financing receivables aged greater than 90 days.

** Of the amortized cost not accruing, there was a related allowance of $122 million and $153 million at December 31, 2022 and 2021, respectively. Financing income recognized on these receivables was immaterial for the years ended December 31, 2022 and 2021, respectively.

Credit Quality Indicators

The company's credit quality indicators, which are based on rating agency data, publicly available information and information provided by customers, are reviewed periodically based on the relative level of risk. The resulting indicators are a numerical rating system that maps to Moody's Investors Service credit ratings as shown below. The company uses information provided by Moody's, where available, as one of many inputs in its determination of customer credit ratings. The credit quality of the customer is evaluated based on these indicators and is assigned the same risk rating whether the receivable is a lease or a loan.

The following tables present the amortized cost basis for client financing receivables by credit quality indicator at December 31, 2022 and 2021, respectively. Receivables with a credit quality indicator ranging from Aaa to Baa3 are considered investment grade. All others are considered non-investment grade. The credit quality indicators reflect mitigating credit enhancement actions taken by customers which reduce the risk to IBM.

($ in millions)

	Americas		EMEA		Asia Pacific	
At December 31, 2022:	**Aaa - Baa3**	**Ba1 - D**	**Aaa - Baa3**	**Ba1 - D**	**Aaa - Baa3**	**Ba1 - D**
Vintage year						
2022	$ 3,316	$ 1,097	$ 1,447	$ 704	$ 799	$ 96
2021	1,197	323	451	159	203	65
2020	559	217	258	158	210	49
2019	251	91	161	99	127	22
2018	128	26	42	16	84	21
2017 and prior	32	45	14	38	12	17
Total	$ 5,482	$ 1,800	$ 2,373	$ 1,173	$ 1,434	$269

($ in millions)

	Americas		EMEA		Asia Pacific	
At December 31, 2021:	**Aaa - Baa3**	**Ba1 - D**	**Aaa - Baa3**	**Ba1 - D**	**Aaa - Baa3**	**Ba1 - D**
Vintage year						
2021	$ 2,556	$ 1,147	$ 1,181	$ 778	$ 565	$226
2020	1,013	392	506	342	381	86
2019	544	236	287	291	297	51
2018	338	117	189	85	211	64
2017	108	50	15	52	74	17
2016 and prior	20	53	21	46	38	20
Total	$ 4,579	$ 1,994	$ 2,198	$ 1,595	$ 1,567	$464

Troubled Debt Restructurings

The company did not have any significant troubled debt restructurings for the years ended December 31, 2022 and 2021.

NOTE M. PROPERTY, PLANT & EQUIPMENT

($ in millions)

At December 31:	2022	2021
Land and land improvements	$ 213	$ 224
Buildings and building and leasehold improvements	5,678	6,049
Information technology equipment	9,643	10,589 *
Production, engineering, office and other equipment	3,161	3,222
Total—gross	18,695	20,085 *
Less: Accumulated depreciation	13,361	14,390 *
Total—net	$ 5,334	$ 5,694

* Recast to conform to 2022 presentation to present rental machines within information technology equipment.

NOTE N. LEASES

Accounting for Leases as a Lessee

The following table presents the various components of lease costs.

($ in millions)

For the year ended December 31:	2022	2021	2020
Finance lease cost	$ 67	$ 52	$ 35
Operating lease cost	1,050	1,126	1,181
Short-term lease cost	7	21	28
Variable lease cost	262	336	343
Sublease income	(72)	(46)	(28)
Total lease cost	$1,315	$1,489	$1,558

The company recorded net gains on sale and leaseback transactions of $41 million and $7 million for the years ended December 31, 2022 and 2021, respectively. The company had no sale and leaseback transactions in 2020.

The following table presents supplemental information relating to the cash flows arising from lease transactions. Cash payments related to variable lease costs and short-term leases are not included in the measurement of operating and finance lease liabilities, and, as such, are excluded from the amounts below.

($ in millions)

For the year ended December 31:	2022	2021	2020
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash outflows from finance leases	$ 9	$ 8	$ 8
Financing cash outflows from finance leases	55	42	25
Operating cash outflows from operating leases	1,020	1,135	1,212
ROU assets obtained in exchange for new finance lease liabilities*	196	46	50
ROU assets obtained in exchange for new operating lease liabilities*	705	779	785

* Includes the impact of currency.

The following table presents the weighted-average lease term and discount rate for finance and operating leases.

At December 31:	2022	2021
Finance leases		
Weighted-average remaining lease term	3.7 yrs.	4.1 yrs.
Weighted-average discount rate	3.57 %	0.88 %
Operating leases		
Weighted-average remaining lease term	4.5 yrs.	4.5 yrs.
Weighted-average discount rate	3.77 %	3.01 %

The following table presents a maturity analysis of expected undiscounted cash flows for operating and finance leases on an annual basis for the next five years and thereafter.

($ in millions)

	2023	2024	2025	2026	2027	Thereafter	Imputed Interest *	Total **
Finance leases	$ 88	$ 74	$ 54	$ 24	$ 22	$ 19	$ (43)	$ 239
Operating leases	960	788	555	430	285	313	(267)	3,064

* Imputed interest represents the difference between undiscounted cash flows and discounted cash flows.

** The company entered into lease agreements for certain facilities and equipment with payments totaling approximately $691 million that have not yet commenced as of December 31, 2022, and therefore are not included in this table.

The following table presents information on the company's finance leases recognized in the Consolidated Balance Sheet.

($ in millions)

At December 31:	2022	2021
ROU Assets—Property, plant and equipment	$223	$ 86
Lease Liabilities		
Short-term debt	75	36
Long-term debt	164	63

Accounting for Leases as a Lessor

The following table presents amounts included in the Consolidated Income Statement related to lessor activity.

($ in millions)

For the year ended December 31:	2022	2021	2020
Lease income—sales-type and direct financing leases			
Sales-type lease selling price	$1,636	$1,355	$1,321
Less: Carrying value of underlying assets*	(385)	(300)	(410)
Gross profit	1,251	1,055	911
Interest income on lease receivables	200	179	249
Total sales-type and direct financing lease income	1,451	1,234	1,160
Lease income—operating leases	116	169	255
Variable lease income	87	120	115
Total lease income	$1,653	$1,523	$1,530

* Excludes unguaranteed residual value.

Sales-Type and Direct Financing Leases

At December 31, 2022 and 2021, the unguaranteed residual values of sales-type and direct financing leases were $422 million and $335 million, respectively. Refer to note L, "Financing Receivables," for additional information on the company's net investment in leases.

For the years ended December 31, 2022 and 2021, impairment of residual values was immaterial.

The following table presents a maturity analysis of the lease payments due to IBM on sales-type and direct financing leases over the next five years and thereafter, as well as a reconciliation of the undiscounted cash flows to the financing receivables recognized in the Consolidated Balance Sheet at December 31, 2022.

($ in millions)

	Total
2023	$1,692
2024	1,173
2025	738
2026	330
2027	87
Thereafter	3
Total undiscounted cash flows	$4,023
Present value of lease payments (recognized as financing receivables)	3,672 *
Difference between undiscounted cash flows and discounted cash flows	$ 351

* The present value of the lease payments will not equal the financing receivables balances in the Consolidated Balance Sheet due to certain items including IDCs, allowance for credit losses and residual values, which are included in the financing receivable balance, but are not included in the future lease payments.

NOTE O. INTANGIBLE ASSETS INCLUDING GOODWILL

Intangible Assets

The following table presents the company's intangible asset balances by major asset class.

($ in millions)

At December 31, 2022:	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount *
Intangible asset class			
Capitalized software	$ 1,650	$ (705)	$ 945
Client relationships	8,559	(2,951)	5,608
Completed technology	5,220	(2,045)	3,175
Patents/trademarks	2,140	(688)	1,452
Other**	19	(15)	4
Total	$ 17,588	$(6,404)	$11,184

* Includes a decrease in net intangible asset balance of $198 million due to foreign currency translation.

** Other intangibles are primarily acquired proprietary and nonproprietary business processes, methodologies and systems.

($ in millions)

At December 31, 2021:	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount *
Intangible asset class			
Capitalized software	$ 1,696	$ (751)	$ 945
Client relationships	9,021	(2,889)	6,132
Completed technology	6,074	(2,259)	3,815
Patents/trademarks	2,196	(586)	1,610
Other**	44	(35)	9
Total	$ 19,031	$(6,520)	$12,511

* Includes a decrease in net intangible asset balance of $221 million due to foreign currency translation.

** Other intangibles are primarily acquired proprietary and nonproprietary business processes, methodologies and systems.

There was no impairment of intangible assets recorded in 2022 and 2021. The net carrying amount of intangible assets decreased $1,327 million during the year ended December 31, 2022, primarily due to intangible asset amortization, partially offset by additions of acquired intangibles and capitalized software. The aggregate intangible amortization expense was $2,397 million and $2,506 million for the years ended December 31, 2022 and 2021, respectively. In addition, in 2022 and 2021, respectively, the company retired $1,301 million and $904 million of fully amortized intangible assets, impacting both the gross carrying amount and accumulated amortization by this amount. The company also derecognized intangible assets with a gross carrying amount of $1,313 million and $1,149 million of accumulated amortization as part of the divestiture of its healthcare software assets on June 30, 2022.

The future amortization expense relating to intangible assets currently recorded in the Consolidated Balance Sheet is estimated to be the following at December 31, 2022:

($ in millions)	Capitalized Software	Acquired Intangibles	Total
2023	$514	$1,571	$2,085
2024	328	1,554	1,881
2025	103	1,535	1,639
2026	0	1,512	1,512
2027	—	1,493	1,493
Thereafter	—	2,574	2,574

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Goodwill

The changes in the goodwill balances by reportable segment for the years ended December 31, 2022 and 2021 are as follows:

($ in millions)

Segment	Balance at January 1, 2022	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments *	Balance at December 31, 2022
Software	$ 43,966	$ 568	$ (118)	$ —	$ (760)	$ 43,657
Consulting	6,797	1,366	(42)	—	(192)	7,928
Infrastructure	4,396	—	—	(1)	(32)	4,363
Other**	484	—	—	(484)	—	—
Total	$ 55,643	$1,934	$ (159)	$ (485)	$ (984)	$ 55,949

* Primarily driven by foreign currency translation.

** The company derecognized $484 million of goodwill related to the divestiture of its healthcare software assets. Refer to note F, “Acquisitions & Divestitures,” for additional information.

($ in millions)

Segment	Balance at January 1, 2021	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments *	Balance at December 31, 2021
Software**	$ 42,665	$1,836	$ 23	$ (13)	$ (545)	$ 43,966
Consulting	6,145	713	(21)	—	(40)	6,797
Infrastructure	4,436	—	0	—	(39)	4,396
Other**	520	—	-	(37)	1	484
Total	$ 53,765	$2,549	$ 2	$ (50)	$ (623)	$ 55,643

* Primarily driven by foreign currency translation.

** Recast to conform to 2022 presentation.

There were no goodwill impairment losses recorded during 2022 or 2021 and the company has no accumulated impairment losses.

Purchase price adjustments recorded in 2022 and 2021 were related to acquisitions that were still subject to the measurement period that ends at the earlier of 12 months from the acquisition date or when information becomes available. Net purchase price adjustments recorded in 2022 primarily related to deferred tax assets and liabilities associated with the Turbonomic acquisition. Net purchase price adjustments recorded in 2021 were not material.

NOTE P. BORROWINGS

Short-Term Debt

($ in millions)

At December 31:	2022	2021
Short-term loans	$ 8	$ 22
Long-term debt—current maturities	4,751	6,764
Total	$4,760	$6,787

The weighted-average interest rate for short-term loans was 7.6 percent and 6.7 percent at December 31, 2022 and 2021, respectively.

Long-Term Debt

Pre-Swap Borrowing

($ in millions)

At December 31:	Maturities	2022	2021
U.S. dollar debt (weighted-average interest rate at December 31, 2022):*			
2.6%	2022	$ —	$ 5,673
3.4%	2023	1,529	1,573
3.3%	2024	5,009	5,016
5.1%	2025	1,603	608
3.3%	2026	4,351	4,356
3.1%	2027	3,620	2,221
6.5%	2028	313	313
3.5%	2029	3,250	3,250
2.0%	2030	1,350	1,350
4.4%	2032	1,850	600
8.0%	2038	83	83
4.5%	2039	2,745	2,745
2.9%	2040	650	650
4.0%	2042	1,107	1,107
7.0%	2045	27	27
4.7%	2046	650	650
4.3%	2049	3,000	3,000
3.0%	2050	750	750
4.2%	2052	1,400	—
7.1%	2096	316	316
		$33,605	$34,290
Other currencies (weighted-average interest rate at December 31, 2022, in parentheses):*			
Euro (1.1%)	2023-2040	$17,087	$15,903
Pound sterling	2022	—	406
Japanese yen (0.3%)	2024-2026	694	1,263
Other (16.0%)	2023-2026	361	378
		$51,747	$52,240
Finance lease obligations (3.5%)	2023-2030	239	99
		$51,986	$52,339
Less: net unamortized discount		835	839
Less: net unamortized debt issuance costs		138	130
Add: fair value adjustment**		(73)	311
		$50,940	$51,681
Less: current maturities		4,751	6,764
Total		$46,189	$44,917

* Includes notes, debentures, bank loans and secured borrowings.

** The portion of the company's fixed-rate debt obligations that is hedged is reflected in the Consolidated Balance Sheet as an amount equal to the sum of the debt's carrying value and a fair value adjustment representing changes in the fair value of the hedged debt obligations attributable to movements in benchmark interest rates.

The company's indenture governing its debt securities and its various credit facilities each contain significant covenants which obligate the company to promptly pay principal and interest, limit the aggregate amount of secured indebtedness and sale and leaseback transactions to 10 percent of the company's consolidated net tangible assets, and restrict the company's ability to merge or consolidate unless certain conditions are met. The credit facilities also include a covenant on the company's consolidated net interest expense ratio, which cannot be less than 2.20 to 1.0, as well as a cross default provision with respect to other defaulted indebtedness of at least $500 million.

The company is in compliance with all of its debt covenants and provides periodic certifications to its lenders. The failure to comply with its debt covenants could constitute an event of default with respect to the debt to which such provisions apply. If certain events of default were to occur, the principal and interest on the debt to which such event of default applied would become immediately due and payable.

In the first quarter of 2021, IBM Credit LLC early redeemed all of its outstanding fixed-rate debt in the aggregate amount of $1.75 billion with maturity dates ranging from 2021 to 2023 and deregistered with the U.S. Securities and Exchange Commission. The notes were redeemed at a price equal to 100 percent of the aggregate principal plus a make-whole premium and accrued interest. The company incurred a loss of approximately $22 million upon redemption that was recorded in other (income) and expense in the Consolidated Income Statement.

In the first quarter of 2022, the company issued $2.3 billion of Euro fixed-rate notes in tranches with maturities ranging from 8 to 12 years and coupons ranging from 0.875 to 1.25 percent, and $1.8 billion of U.S. dollar fixed-rate notes in tranches with maturities ranging from 5 to 30 years and coupons ranging from 2.20 to 3.43 percent. In the third quarter of 2022, the company issued $3.25 billion of U.S. dollar fixed-rate notes in tranches with maturities ranging from 3 to 30 years and coupons ranging from 4.00 to 4.90 percent.

Post-Swap Borrowing (Long-Term Debt, Including Current Portion)

($ in millions)

	2022		2021	
At December 31:	**Amount**	**Weighted-Average Interest Rate**	**Amount**	**Weighted-Average Interest Rate**
Fixed-rate debt	$43,898	2.7 %	$49,976	2.8 %
Floating-rate debt*	7,042	5.9 %	1,705	2.6 %
Total	$50,940		$51,681	

* Includes $6,525 million and $425 million in 2022 and 2021, respectively, of notional interest-rate swaps that effectively convert fixed-rate long-term debt into floating-rate debt. Refer to note T, "Derivative Financial Instruments," for additional information.

Pre-swap annual contractual obligations of long-term debt outstanding at December 31, 2022, are as follows:

($ in millions)

	Total
2023	$ 4,754
2024	6,367
2025	4,875
2026	4,700
2027	4,705
Thereafter	26,585
Total	$51,986

Interest on Debt

($ in millions)

For the year ended December 31:	**2022**	**2021**	**2020**
Cost of financing	$ 346	$ 392	$ 451
Interest expense	1,216	1,155	1,288
Interest capitalized	5	3	5
Total interest paid and accrued	$1,566	$1,550	$1,743

Refer to the related discussion in note E, "Segments," for interest expense of the Financing segment. Refer to note T, "Derivative Financial Instruments," for a discussion of the use of foreign currency denominated debt designated as a hedge of net investment, as well as a discussion of the use of currency and interest-rate swaps in the company's debt risk management program.

Lines of Credit

On June 30, 2022, the company amended its existing $2.5 billion Three-Year Credit Agreement and $7.5 billion Five-Year Credit Agreement (the Credit Agreements) to extend the maturity dates to June 20, 2025 and June 22, 2027, respectively, and to replace the London Interbank Offered Rate (LIBOR) interest rate provisions with customary provisions based on the Secured Overnight Financing Rate (SOFR). The Credit Agreements permit the company and its subsidiary borrowers to borrow up to $10 billion on a revolving basis. The total expense recorded by the company related to these agreements was $11 million, $12 million, and $12 million in 2022, 2021, and 2020, respectively. Subject to certain conditions stated in the Credit Agreements, the borrower may borrow, prepay and re-borrow amounts under the Credit Agreements at any time during the term of such agreements. Funds borrowed may be used for the general corporate purposes of the borrower.

Interest rates on borrowings under the Credit Agreements will be based on prevailing market interest rates, as further described in the Credit Agreements. The Credit Agreements contain customary representations and warranties, covenants, events of default, and indemnification provisions. The company believes that circumstances that might give rise to breach of these covenants or an event of default, as specified in the Credit Agreements, are remote. As of December 31, 2022, there were no borrowings by the company under the Credit Agreements.

The company also has other committed lines of credit in some of the geographies which are not significant in the aggregate. Interest rates and other terms of borrowing under these lines of credit vary from country to country, depending on local market conditions. As of December 31, 2022, there were no material borrowings by the company under these credit facilities.

NOTE Q. OTHER LIABILITIES

($ in millions)

At December 31:	2022	2021
Income tax reserves*	$ 6,404	$ 6,179
Excess 401(k) Plus Plan	1,307	1,686
Disability benefits	303	359
Derivative liabilities	488	103
Workforce reductions	524	752
Deferred taxes	2,292	3,956
Other taxes payable	90	72
Environmental accruals	243	224
Warranty accruals	36	29
Asset retirement obligations	82	92
Acquisition related	152	218
Divestiture related	49	47
Other	273	278
Total	$12,243	$13,996

* Refer to note H, “Taxes,” for additional information.

In response to changing business needs, the company periodically takes workforce reduction actions to improve productivity, cost competitiveness and to rebalance skills. The noncurrent contractually obligated future payments associated with these activities are reflected in the workforce reductions caption in the previous table. The noncurrent liabilities are workforce accruals primarily related to terminated employees who are no longer working for the company and who were granted annual payments to supplement their incomes in certain countries. Depending on the individual country’s legal requirements, these required payments will continue until the former employee begins receiving pension benefits or passes away. The total amounts accrued for workforce reductions, including amounts classified as other accrued expenses and liabilities in the Consolidated Balance Sheet, were $701 million and $1,359 million at December 31, 2022 and 2021, respectively. The decrease is primarily due to cash payments made in 2022 for the workforce reduction action in the fourth quarter of 2020. The company recorded a charge of $1,472 million in selling, general and administrative expense in the Consolidated Income Statement in the year ended December 31, 2020 for severance and employee related benefits in accordance with the accounting guidance for ongoing benefit arrangements.

The company employs extensive internal environmental protection programs that primarily are preventive in nature. The company also participates in environmental assessments and cleanups at a number of locations, including operating facilities, previously owned facilities and Superfund sites. The company’s maximum exposure for all environmental liabilities cannot be estimated and no amounts have been recorded for non-ARO environmental liabilities that are not probable or estimable. The total amounts accrued for non-ARO environmental liabilities, including amounts classified as current in the Consolidated Balance Sheet, that do not reflect actual or anticipated insurance recoveries, were $271 million and $248 million at December 31, 2022 and 2021, respectively. Estimated environmental costs are not expected to materially affect the consolidated financial position or consolidated results of the company’s operations in future periods. However, estimates of future costs are subject to change due to protracted cleanup periods, changing environmental remediation regulations and changes in assumptions.

As of December 31, 2022, the company was unable to estimate the range of settlement dates and the related probabilities for certain asbestos remediation AROs. These conditional AROs are primarily related to the encapsulated structural fireproofing that is not subject to abatement unless the buildings are demolished and non-encapsulated asbestos that the company would remediate only if it performed major renovations of certain existing buildings. Because these conditional obligations have indeterminate settlement dates, the company could not develop a reasonable estimate of their fair values. The company will continue to assess its ability to estimate fair values at each future reporting date. The related liability will be recognized once sufficient additional information becomes available. The total amounts accrued for ARO liabilities, including amounts classified as current in the Consolidated Balance Sheet, were $107 million and $119 million at December 31, 2022 and 2021, respectively.

NOTE R. COMMITMENTS & CONTINGENCIES

Commitments

The company's extended lines of credit to third-party entities include unused amounts of $1.6 billion and $1.7 billion at December 31, 2022 and 2021, respectively. A portion of these amounts was available to the company's business partners to support their working capital needs. In addition, the company has committed to provide future financing to its clients in connection with client purchase agreements for $2.1 billion and $3.2 billion at December 31, 2022 and 2021, respectively. The reduction in the future financing commitments is primarily due to lower services financing in the current year. The company collectively evaluates the allowance for these arrangements using a provision methodology consistent with the portfolio of the commitments. Refer to note A, "Significant Accounting Policies," for additional information. The allowance for these commitments is recorded in other liabilities in the Consolidated Balance Sheet and was not material at December 31, 2022 and 2021.

The company has applied the guidance requiring a guarantor to disclose certain types of guarantees, even if the likelihood of requiring the guarantor's performance is remote. The following is a description of arrangements in which the company is the guarantor.

The company is a party to a variety of agreements pursuant to which it may be obligated to indemnify the other party with respect to certain matters. Typically, these obligations arise in the context of contracts entered into by the company, under which the company customarily agrees to hold the party harmless against losses arising from a breach of representations and covenants related to such matters as title to the assets sold, certain intellectual property rights, specified environmental matters, third-party performance of nonfinancial contractual obligations and certain income taxes. In each of these circumstances, payment by the company is conditioned on the other party making a claim pursuant to the procedures specified in the particular contract, the procedures of which typically allow the company to challenge the other party's claims. While indemnification provisions typically do not include a contractual maximum on the company's payment, the company's obligations under these agreements may be limited in terms of time and/or nature of claim, and in some instances, the company may have recourse against third parties for certain payments made by the company.

It is not possible to predict the maximum potential amount of future payments under these or similar agreements due to the conditional nature of the company's obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by the company under these agreements have not had a material effect on the company's business, financial condition or results of operations.

In addition, the company guarantees certain loans and financial commitments. The maximum potential future payment under these financial guarantees and the fair value of these guarantees recognized in the Consolidated Balance Sheet at December 31, 2022 and 2021 was not material.

Changes in the company's warranty liability for standard warranties, which are included in other accrued expenses and liabilities and other liabilities in the Consolidated Balance Sheet, and for extended warranty contracts, which are included in deferred income in the Consolidated Balance Sheet, are presented in the following tables.

Standard Warranty Liability

($ in millions)

	2022	2021
Balance at January 1	$ 77	$ 83
Current period accruals	84	82
Accrual adjustments to reflect experience	(2)	(1)
Charges incurred	(81)	(86)
Balance at December 31	$ 79	$ 77

Extended Warranty Liability (Deferred Income)

($ in millions)

	2022	2021
Balance at January 1	$ 350	$ 425
Revenue deferred for new extended warranty contracts	100	133
Amortization of deferred revenue	(163)	(198)
Other*	(15)	(10)
Balance at December 31	$ 272	$ 350
Current portion	$ 137	$ 163
Noncurrent portion	$ 135	$ 186

* Other consists primarily of foreign currency translation adjustments.

Contingencies
As a company with a substantial employee population and with clients in more than 175 countries, IBM is involved, either as plaintiff or defendant, in a variety of ongoing claims, demands, suits, investigations, tax matters and proceedings that arise from time to time in the ordinary course of its business. The company is a leader in the information technology industry and, as such, has been and will continue to be subject to claims challenging its IP rights and associated products and offerings, including claims of copyright and patent infringement and violations of trade secrets and other IP rights. In addition, the company enforces its own IP against infringement, through license negotiations, lawsuits or otherwise. Further, given the rapidly evolving external landscape of cybersecurity, privacy and data protection laws, regulations and threat actors, the company and its clients have been and will continue to be subject to actions or proceedings in various jurisdictions. Also, as is typical for companies of IBM's scope and scale, the company is party to actions and proceedings in various jurisdictions involving a wide range of labor and employment issues (including matters related to contested employment decisions, country-specific labor and employment laws, and the company's pension, retirement and other benefit plans), as well as actions with respect to contracts, product liability, securities, foreign operations, competition law and environmental matters. These actions may be commenced by a number of different parties, including competitors, clients, current or former employees, government and regulatory agencies, stockholders and representatives of the locations in which the company does business. Some of the actions to which the company is party may involve particularly complex technical issues, and some actions may raise novel questions under the laws of the various jurisdictions in which these matters arise.

The company records a provision with respect to a claim, suit, investigation or proceeding when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Any recorded liabilities, including any changes to such liabilities for the years ended December 31, 2022, 2021 and 2020 were not material to the Consolidated Financial Statements.

In accordance with the relevant accounting guidance, the company provides disclosures of matters for which the likelihood of material loss is at least reasonably possible. In addition, the company also discloses matters based on its consideration of other matters and qualitative factors, including the experience of other companies in the industry, and investor, customer and employee relations considerations.

With respect to certain of the claims, suits, investigations and proceedings discussed herein, the company believes at this time that the likelihood of any material loss is remote, given, for example, the procedural status, court rulings, and/or the strength of the company's defenses in those matters. With respect to the remaining claims, suits, investigations and proceedings discussed in this note, except as specifically discussed herein, the company is unable to provide estimates of reasonably possible losses or range of losses, including losses in excess of amounts accrued, if any, for the following reasons. Claims, suits, investigations and proceedings are inherently uncertain, and it is not possible to predict the ultimate outcome of these matters. It is the company's experience that damage amounts claimed in litigation against it are unreliable and unrelated to possible outcomes, and as such are not meaningful indicators of the company's potential liability. Further, the company is unable to provide such an estimate due to a number of other factors with respect to these claims, suits, investigations and proceedings, including considerations of the procedural status of the matter in question, the presence of complex or novel legal theories, and/or the ongoing discovery and development of information important to the matters. The company reviews claims, suits, investigations and proceedings at least quarterly, and decisions are made with respect to recording or adjusting provisions and disclosing reasonably possible losses or range of losses (individually or in the aggregate), to reflect the impact and status of settlement discussions, discovery, procedural and substantive rulings, reviews by counsel and other information pertinent to a particular matter.

Whether any losses, damages or remedies finally determined in any claim, suit, investigation or proceeding could reasonably have a material effect on the company's business, financial condition, results of operations or cash flows will depend on a number of variables, including: the timing and amount of such losses or damages; the structure and type of any such remedies; the significance of the impact any such losses, damages or remedies may have in the Consolidated Financial Statements; and the unique facts and circumstances of the particular matter that may give rise to additional factors. While the company will continue to defend itself vigorously, it is possible that the company's business, financial condition, results of operations or cash flows could be affected in any particular period by the resolution of one or more of these matters.

The following is a summary of the more significant legal matters involving the company.

In December 2017, CIS General Insurance Limited (CISGIL) sued IBM UK regarding a contract entered into by IBM UK and CISGIL in 2015 to implement and operate an IT insurance platform. The contract was terminated by IBM UK in July 2017 for non-payment by CISGIL. CISGIL alleges wrongful termination, breach of contract and breach of warranty. In February 2021, the Technology & Construction Court in London rejected the majority of CISGIL's claims and ruled in IBM's favor on its counterclaim. The court's decision required IBM to pay approximately $20 million in damages, plus interest and litigation costs. In April 2022, the Court of Appeal awarded CISGIL additional damages of approximately $89 million, plus interest and litigation costs. IBM filed an application for permission to appeal with the UK Supreme Court, which was denied in December 2022.

On June 8, 2021, IBM sued GlobalFoundries U.S. Inc. (GF) in New York State Supreme Court for claims including fraud and breach of contract relating to a long-term strategic relationship between IBM and GF for researching, developing, and manufacturing advanced semiconductor chips for IBM. GF walked away from its obligations and IBM is now suing to recover amounts paid to GF, and other compensatory and punitive damages, totaling more than $1.5 billion. On September 14, 2021, the court ruled on GF's motion to dismiss. On April 7, 2022, the Appellate Division unanimously reversed the lower court's dismissal of IBM's fraud claim. IBM's claims for breaches of contract, promissory estoppel, and fraud are proceeding.

On April 5, 2022, a putative securities law class action was commenced in the United States District Court for the Southern District of New York alleging that during the period from April 4, 2017 through October 20, 2021, certain strategic imperatives revenues were misclassified. The company, two current IBM senior executives, and two former IBM senior executives are named as defendants. On June 23, 2022, the court entered an order appointing Iron Workers Local 580 Joint Funds as lead plaintiff. On September 21, 2022, the plaintiff voluntarily dismissed the case, without prejudice. On January 13, 2023, a putative securities law class action making allegations substantially similar to those in the dismissed case was filed in the same court. On March 25, 2022, the Board of Directors received a shareholder demand letter making similar allegations and demanding that the company's Board of Directors take action to assert the company's rights. A special committee of independent directors was formed to investigate the issues raised in the letter. The special committee has completed its investigation and recommended that no claims should be asserted on behalf of the company. The independent directors of the company's Board of Directors unanimously adopted that recommendation.

On June 2, 2022, a putative class action lawsuit was filed in the United States District Court for the Southern District of New York alleging that the IBM Pension Plan miscalculated certain joint and survivor annuity pension benefits by using outdated actuarial tables in violation of the Employee Retirement Income Security Act of 1974. IBM, the Plan Administrator Committee, and the IBM Pension Plan are named as defendants.

As disclosed in the Kyndryl Form 10 and subsequent Kyndryl public filings, in 2017 BMC Software, Inc. (BMC) filed suit against IBM in the United States District Court for the Southern District of Texas in a dispute involving IBM's former managed infrastructure services business. On May 30, 2022, the trial court awarded BMC $718 million in direct damages and $718 million in punitive damages, plus interest and fees. IBM filed a notice of appeal, and BMC cross appealed. IBM does not believe it has any material exposure relating to this litigation. No material liability or related indemnification asset has been recorded by IBM.

The company is party to, or otherwise involved in, proceedings brought by U.S. federal or state environmental agencies under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), known as "Superfund," or laws similar to CERCLA. Such statutes require potentially responsible parties to participate in remediation activities regardless of fault or ownership of sites. The company is also conducting environmental investigations, assessments or remediations at or in the vicinity of several current or former operating sites globally pursuant to permits, administrative orders or agreements with country, state or local environmental agencies, and is involved in lawsuits and claims concerning certain current or former operating sites.

The company is also subject to ongoing tax examinations and governmental assessments in various jurisdictions. Along with many other U.S. companies doing business in Brazil, the company is involved in various challenges with Brazilian tax authorities regarding non-income tax assessments and non-income tax litigation matters. The total potential amount related to all these matters for all applicable years is approximately $400 million. The company believes it will prevail on these matters and that this amount is not a meaningful indicator of liability.

NOTE S. EQUITY ACTIVITY

The authorized capital stock of IBM consists of (i) 4,687,500,000 shares of common stock with a $.20 per share par value, of which 906,091,977 shares were outstanding at December 31, 2022, and (ii) 150,000,000 shares of preferred stock with a $.01 per share par value, whereby 75,000,000 shares have been designated as Series A Preferred Stock, of which 57,916,244 shares of Series A Preferred Stock were issued to a wholly owned subsidiary of the company but were not outstanding at December 31, 2022. The company does not intend to issue or transfer any shares of Series A Preferred Stock to any third parties.

Stock Repurchases

The Board of Directors authorizes the company to repurchase IBM common stock. The company suspended its share repurchase program at the time of the Red Hat acquisition in 2019. At December 31, 2022, $2,008 million of Board common stock repurchase authorization was available.

Other Stock Transactions

The company issued the following shares of common stock as part of its stock-based compensation plans and employees stock purchase plan: 8,539,072 shares in 2022, 5,608,845 shares in 2021, and 4,972,028 shares in 2020. The company issued 2,512,300 treasury shares in 2022, 2,093,243 treasury shares in 2021, and 2,934,907 treasury shares in 2020, as a result of restricted stock unit releases and exercises of stock options by employees of certain acquired businesses and by non-U.S. employees. Also, as part of the company's stock-based compensation plans, 3,027,994 common shares at a cost of $407 million, 2,286,912 common shares at a cost of $319 million, and 2,363,966 common shares at a cost of $302 million in 2022, 2021 and 2020, respectively, were remitted by employees to the company in order to satisfy minimum statutory tax withholding requirements. These amounts are included in the treasury stock balance in the Consolidated Balance Sheet and the Consolidated Statement of Equity.

Reclassifications and Taxes Related to Items of Other Comprehensive Income

($ in millions)

For the year ended December 31, 2022:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$ 176	$ (406)	$ (229)
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ (1)	$ 0	$ (1)
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ (1)	$ 0	$ (1)
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	$ 241	$ (64)	$ 178
Reclassification of (gains)/losses to:			
Cost of services	(24)	6	(18)
Cost of sales	(99)	28	(70)
Cost of financing	24	(6)	18
SG&A expense	(38)	11	(28)
Other (income) and expense	(349)	88	(261)
Interest expense	86	(22)	64
Total unrealized gains/(losses) on cash flow hedges	$ (158)	$ 41	$ (117)
Retirement-related benefit plans*			
Prior service costs/(credits)	$ 463	$ (99)	$ 364
Net (losses)/gains arising during the period	878	(183)	695
Curtailments and settlements	5,970	(1,490)	4,480
Amortization of prior service (credits)/costs	12	(3)	9
Amortization of net (gains)/losses	1,596	(304)	1,293
Total retirement-related benefit plans	$8,919	$(2,078)	$6,841
Other comprehensive income/(loss)	$8,936	$(2,442)	$6,494

* These AOCI components are included in the computation of net periodic pension cost and include the impact of a one-time, non-cash pension settlement charge of $5.9 billion ($4.4 billion net of tax). Refer to note V, “Retirement-Related Benefits,” for additional information.

($ in millions)

For the year ended December 31, 2021:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$ 987	$ (414)	$ 573
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ 0	$ 0	$ 0
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ 0	$ 0	$ 0
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	$ 344	$ (89)	$ 256
Reclassification of (gains)/losses to:			
Cost of services	(43)	11	(32)
Cost of sales	16	(3)	13
Cost of financing	22	(6)	17
SG&A expense	24	(6)	19
Other (income) and expense	157	(40)	118
Interest expense	65	(16)	49
Total unrealized gains/(losses) on cash flow hedges	$ 587	$ (149)	$ 438
Retirement-related benefit plans*			
Prior service costs/(credits)	$ (51)	$ (1)	$ (52)
Net (losses)/gains arising during the period	2,433	(601)	1,832
Curtailments and settlements	94	(11)	83
Amortization of prior service (credits)/costs	9	0	9
Amortization of net (gains)/losses	2,484	(528)	1,956
Total retirement-related benefit plans	$4,969	$(1,140)	$3,828
Other comprehensive income/(loss)	$6,542	$(1,703)	$4,839

* These AOCI components are included in the computation of net periodic pension cost. Refer to note V, “Retirement-Related Benefits,” for additional information.

($ in millions)

For the year ended December 31, 2020:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$(1,500)	$ 535	$ (965)
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ (1)	$ 0	$ 0
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ (1)	$ 0	$ 0
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	$ (349)	$ 89	$ (261)
Reclassification of (gains)/losses to:			
Cost of services	(23)	6	(18)
Cost of sales	(2)	1	(2)
Cost of financing	27	(7)	20
SG&A expense	0	0	0
Other (income) and expense	(101)	25	(75)
Interest expense	78	(20)	58
Total unrealized gains/(losses) on cash flow hedges	$ (370)	$ 94	$ (277)
Retirement-related benefit plans*			
Prior service costs/(credits)	$ (37)	$ 7	$ (29)
Net (losses)/gains arising during the period	(1,678)	295	(1,383)
Curtailments and settlements	52	(14)	38
Amortization of prior service (credits)/costs	13	(1)	12
Amortization of net (gains)/losses	2,314	(451)	1,863
Total retirement-related benefit plans	$ 664	$ (163)	$ 501
Other comprehensive income/(loss)	$(1,206)	$ 466	$ (740)

* These AOCI components are included in the computation of net periodic pension cost. Refer to note V, "Retirement-Related Benefits," for additional information.

Accumulated Other Comprehensive Income/(Loss) (net of tax)

($ in millions)

	Net Unrealized Gains/(Losses) on Cash Flow Hedges	Foreign Currency Translation Adjustments *	Net Change Retirement-Related Benefit Plans	Net Unrealized Gains/(Losses) on Available-For-Sale Securities	Accumulated Other Comprehensive Income/(Loss)
December 31, 2019	$ (179)	$ (3,700)	$(24,718)	$ 0	$ (28,597)
Other comprehensive income before reclassifications	(261)	(965)	(1,412)	0	(2,638)
Amount reclassified from accumulated other comprehensive income	(16)	—	1,914	—	1,898
Total change for the period	(277)	(965)	501	0	(740)
December 31, 2020	(456)	(4,665)	(24,216)	0	(29,337)
Other comprehensive income before reclassifications	256	573	1,780	0	2,608
Amount reclassified from accumulated other comprehensive income	183	—	2,049	—	2,231
Separation of Kyndryl	—	730	534	—	1,264
Total change for the period	438	1,303	4,362	0	6,103
December 31, 2021	(18)	(3,362)	(19,854)	(1)	(23,234)
Other comprehensive income before reclassifications	178	(229)	1,059	(1)	1,007
Amount reclassified from accumulated other comprehensive income	(295)	—	5,782 **	—	5,487
Total change for the period	(117)	(229)	6,841	(1)	6,494
December 31, 2022	$ (135)	$ (3,591)	$(13,013)	$ (1)	$ (16,740)

* Foreign currency translation adjustments are presented gross except for any associated hedges which are presented net of tax.

** Includes the impact of a one-time, non-cash pension settlement charge of $5.9 billion ($4.4 billion net of tax). Refer to note V, "Retirement-Related Benefits," for additional information.

NOTE T. DERIVATIVE FINANCIAL INSTRUMENTS

The company operates in multiple functional currencies and is a significant lender and borrower in the global markets. In the normal course of business, the company is exposed to the impact of interest rate changes and foreign currency fluctuations, and to a lesser extent equity and commodity price changes and client credit risk. The company limits these risks by following established risk management policies and procedures, including the use of derivatives, and, where cost effective, financing with debt in the currencies in which assets are denominated. For interest rate exposures, derivatives are used to better align rate movements between the interest rates associated with the company's lease and other financial assets and the interest rates associated with its financing debt. Derivatives are also used to manage the related cost of debt. For foreign currency exposures, derivatives are used to better manage the cash flow volatility arising from foreign exchange rate fluctuations.

In the Consolidated Balance Sheet, the company does not offset derivative assets against liabilities in master netting arrangements nor does it offset receivables or payables recognized upon payment or receipt of cash collateral against the fair values of the related derivative instruments. The amount recognized in other accounts receivable for the right to reclaim cash collateral was $140 million and $2 million at December 31, 2022 and 2021, respectively. The amount recognized in accounts payable for the obligation to return cash collateral was $8 million and $38 million at December 31, 2022 and 2021, respectively. The company restricts the use of cash collateral received to rehypothecation, and therefore reports it in restricted cash in the Consolidated Balance Sheet. The amount rehypothecated was $8 million and $2 million at December 31, 2022 and 2021, respectively. Additionally, if derivative exposures covered by a qualifying master netting agreement had been netted in the Consolidated Balance Sheet at December 31, 2022 and 2021, the total derivative asset and liability positions each would have been reduced by $220 million and $60 million, respectively.

On May 19, 2022, in connection with the disposition of 22.3 million shares of Kyndryl common stock, the company entered into a cash-settled swap with the lender of the short-term credit facility as the counterparty that maintained IBM's continued economic exposure in those shares pursuant to the May 2022 Exchange. Refer to note J, "Financial Assets & Liabilities," for additional information. The notional value of the swap was $311 million. Upon settlement of the swap, which occurred on November 2, 2022, IBM recognized a loss and paid $83 million derived from the difference between the VWAP of the Kyndryl common stock over the outstanding term of the swap and the strike price of $13.95 per share.

In its hedging programs, the company may use forward contracts, futures contracts, interest-rate swaps, cross-currency swaps, equity swaps and options depending upon the underlying exposure. The company is not a party to leveraged derivative instruments.

A brief description of the major hedging programs, categorized by underlying risk, follows.

Interest Rate Risk

Fixed and Variable Rate Borrowings

The company issues debt in the global capital markets to fund its operations and financing business. Access to cost-effective financing can result in interest rate mismatches with the underlying assets. To manage these mismatches and to reduce overall interest cost, the company may use interest-rate swaps to convert specific fixed-rate debt issuances into variable-rate debt (i.e., fair value hedges) and to convert specific variable-rate debt issuances into fixed-rate debt (i.e., cash flow hedges). At December 31, 2022 and 2021, the total notional amount of the company's interest-rate swaps was $6.5 billion and $0.4 billion, respectively. The weighted-average remaining maturity of these instruments at December 31, 2022 and 2021 was approximately 6 years and 1.2 years, respectively. These interest-rate contracts were accounted for as fair value hedges. The company did not have any cash flow hedges relating to this program outstanding at December 31, 2022 and 2021.

Forecasted Debt Issuance

The company is exposed to interest rate volatility on future debt issuances. To manage this risk, the company may use instruments such as forward starting interest-rate swaps to lock in the rate on the interest payments related to the forecasted debt issuances. There were no instruments outstanding at December 31, 2022 and 2021.

In connection with cash flow hedges of forecasted interest payments related to the company's borrowings, the company recorded net losses (before taxes) of $139 million and $157 million at December 31, 2022 and 2021, respectively, in AOCI. The company estimates that $18 million of the deferred net losses (before taxes) on derivatives in AOCI at December 31, 2022 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying interest payments.

Foreign Exchange Risk

Long-Term Investments in Foreign Subsidiaries (Net Investment)

A large portion of the company's foreign currency denominated debt portfolio is designated as a hedge of net investment in foreign subsidiaries to reduce the volatility in stockholders' equity caused by changes in foreign currency exchange rates in the functional currency of major foreign subsidiaries with respect to the U.S. dollar. At December 31, 2022 and 2021, the carrying value of debt designated as hedging instruments was $13.4 billion and $14.1 billion, respectively. The company also uses cross-currency swaps and foreign exchange forward contracts for this risk management purpose. At December 31, 2022 and 2021, the total notional amount of derivative instruments designated as net investment hedges was $4.7 billion and $6.8 billion, respectively. At both December 31, 2022 and 2021, the weighted-average remaining maturity of these instruments was approximately 0.1 years.

Anticipated Royalties and Cost Transactions

The company's operations generate significant nonfunctional currency, third-party vendor payments and intercompany payments for royalties and goods and services among the company's non-U.S. subsidiaries and with the company. In anticipation of these foreign currency cash flows and in view of the volatility of the currency markets, the company selectively employs foreign exchange forward contracts to manage its currency risk. These forward contracts are accounted for as cash flow hedges. At December 31, 2022, the maximum remaining length of time over which the company has hedged its exposure to the variability in future cash flows is approximately two years. At December 31, 2022 and 2021, the total notional amount of forward contracts designated as cash flow hedges of forecasted royalty and cost transactions was $8.1 billion and $7.2 billion, respectively. At both December 31, 2022 and 2021, the weighted-average remaining maturity of these instruments was approximately 0.6 years.

At December 31, 2022 and 2021, in connection with cash flow hedges of anticipated royalties and cost transactions, the company recorded net gains (before taxes) of $66 million and $315 million, respectively, in AOCI. The company estimates that $7 million of deferred net gains (before taxes) on derivatives in AOCI at December 31, 2022 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying anticipated transactions.

Foreign Currency Denominated Borrowings

The company is exposed to exchange rate volatility on foreign currency denominated debt. To manage this risk, the company employs cross-currency swaps to convert fixed-rate foreign currency denominated debt to fixed-rate debt denominated in the functional currency of the borrowing entity. These swaps are accounted for as cash flow hedges. At December 31, 2022, the maximum length of time remaining over which the company has hedged its exposure was approximately five years. At December 31, 2022 and 2021, the total notional amount of cross-currency swaps designated as cash flow hedges of foreign currency denominated debt was $3.1 billion and $2.0 billion, respectively.

At December 31, 2022 and 2021, in connection with cash flow hedges of foreign currency denominated borrowings, the company recorded net losses (before taxes) of $101 million and $174 million, respectively, in AOCI. The company estimates that $10 million of deferred net gains (before taxes) on derivatives in AOCI at December 31, 2022 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying exposure.

Subsidiary Cash and Foreign Currency Asset/Liability Management

The company uses its Global Treasury Centers to manage the cash of its subsidiaries. These centers principally use currency swaps to convert cash flows in a cost-effective manner. In addition, the company uses foreign exchange forward contracts to economically hedge, on a net basis, the foreign currency exposure of a portion of the company's nonfunctional currency assets and liabilities. The terms of these forward and swap contracts are generally less than one year. The changes in the fair values of these contracts and of the underlying hedged exposures are generally offsetting and are recorded in other (income) and expense in the Consolidated Income Statement. At December 31, 2022 and 2021, the total notional amount of derivative instruments in economic hedges of foreign currency exposure was $5.9 billion and $6.8 billion, respectively.

Equity Risk Management

The company is exposed to market price changes in certain broad market indices and in the company's own stock primarily related to certain obligations to employees. Changes in the overall value of these employee compensation obligations are recorded in SG&A expense in the Consolidated Income Statement. Although not designated as accounting hedges, the company utilizes derivatives, including equity swaps and futures, to economically hedge the exposures related to its employee compensation obligations. The derivatives are linked to the total return on certain broad market indices or the total return on the company's common stock, and are recorded at fair value with gains or losses also reported in SG&A expense in the Consolidated Income Statement. At December 31, 2022 and 2021, the total notional amount of derivative instruments in economic hedges of these compensation obligations was $1.1 billion and $1.4 billion, respectively.

Cumulative Basis Adjustments for Fair Value Hedges

At December 31, 2022 and 2021, the following amounts were recorded in the Consolidated Balance Sheet related to cumulative basis adjustments for fair value hedges:

($ in millions)

At December 31:	2022	2021
Short-term debt		
Carrying amount of the hedged item	$ (199)	$(227)
Cumulative hedging adjustments included in the carrying amount—assets/(liabilities)	1	(2)
Long-term debt		
Carrying amount of the hedged item	(6,216)	(508)
Cumulative hedging adjustments included in the carrying amount—assets/(liabilities)*	72	(309)

* Includes ($250) million and ($302) million of hedging adjustments on discontinued hedging relationships at December 31, 2022 and 2021, respectively.

The Effect of Derivative Instruments in the Consolidated Income Statement

The total amounts of income and expense line items presented in the Consolidated Income Statement in which the effects of fair value hedges, cash flow hedges, net investment hedges and derivatives not designated as hedging instruments are recorded and the total effect of hedge activity on these income and expense line items are as follows:

($ in millions)

	Total			Gains/(Losses) of Total Hedge Activity		
For the year ended December 31:	2022	2021	2020	2022	2021	2020
Cost of services	$21,062	$19,147	$17,689	$ 24	$ 43	$ 23
Cost of sales	6,374	6,184	6,048	99	(16)	2
Cost of financing	406	534	577	2	1	12
SG&A expense	18,609	18,745	20,561	(211)	176	141
Other (income) and expense	5,803	873	802	(225)	(205)	101
Interest expense	1,216	1,155	1,288	6	3	35

($ in millions)

For the year ended December 31:	Consolidated Income Statement Line Item	Gain/(Loss) Recognized in Consolidated Income Statement: Recognized on Derivatives 2022	2021	2020	Attributable to Risk Being Hedged [2] 2022	2021	2020
Derivative instruments in fair value hedges [1]							
Interest rate contracts	Cost of financing	$ (73)	$ (1)	$ 20	$ 85	$ 18	$ 4
	Interest expense	(257)	(2)	58	299	53	11
Derivative instruments not designated as hedging instruments							
Foreign exchange contracts	Other (income) and expense	(492)	(48)	1	N/A	N/A	N/A
Equity contracts	SG&A expense	(249)	201	142	N/A	N/A	N/A
	Other (income) and expense	(83)	—	—	N/A	N/A	N/A
Total		$(1,153)	$150	$220	$384	$ 71	$ 14

($ in millions)

For the year ended December 31:	Recognized in OCI 2022	2021	2020	Consolidated Income Statement Line Item	Reclassified from AOCI 2022	2021	2020	Amounts Excluded from Effectiveness Testing [3] 2022	2021	2020
Derivative instruments in cash flow hedges										
Interest rate contracts	$ —	$ —	$ —	Cost of financing	$ (4)	$ (4)	$ (5)	$ —	$ —	$ —
				Interest expense	(14)	(13)	(13)	—	—	—
Foreign exchange contracts	241	344	(349)	Cost of services	24	43	23	—	—	—
				Cost of sales	99	(16)	2	—	—	—
				Cost of financing	(21)	(18)	(23)	—	—	—
				SG&A expense	38	(24)	0	—	—	—
				Other (income) and expense	349	(157)	101	—	—	—
				Interest expense	(72)	(52)	(65)	—	—	—
Instruments in net investment hedges [4]										
Foreign exchange contracts	1,613	1,644	(2,127)	Cost of financing	—	—	—	14	6	16
				Interest expense	—	—	—	50	17	45
Total	$ 1,854	$ 1,989	$ (2,477)		$ 400	$ (243)	$ 21	$ 64	$ 23	$ 60

(1) The amount includes changes in clean fair values of the derivative instruments in fair value hedging relationships and the periodic accrual for coupon payments required under these derivative contracts.

(2) The amount includes basis adjustments to the carrying value of the hedged item recorded during the period and amortization of basis adjustments recorded on de-designated hedging relationships during the period.

(3) The company's policy is to recognize all fair value changes in amounts excluded from effectiveness testing in net income each period.

(4) Instruments in net investment hedges include derivative and non-derivative instruments with the amounts recognized in OCI providing an offset to the translation of foreign subsidiaries.

N/A–Not applicable

For the years ending December 31, 2022, 2021 and 2020, there were no material gains or losses excluded from the assessment of hedge effectiveness (for fair value or cash flow hedges), or associated with an underlying exposure that did not or was not expected to occur (for cash flow hedges); nor are there any anticipated in the normal course of business.

NOTE U. STOCK-BASED COMPENSATION

The following table presents total stock-based compensation cost included in income from continuing operations.

($ in millions)

For the year ended December 31:	2022	2021	2020
Cost	$ 164	$ 145	$ 126
SG&A expense	566	555	550
RD&E expense	258	218	197
Pre-tax stock-based compensation cost	987	919	873
Income tax benefits	(249)	(223)	(198)
Net stock-based compensation cost	$ 738	$ 695	$ 675

The company's total unrecognized compensation cost related to non-vested awards at December 31, 2022 was $1.5 billion and is expected to be recognized over a weighted-average period of approximately 2.6 years.

Capitalized stock-based compensation cost was not material at December 31, 2022, 2021 and 2020.

Incentive Awards

Stock-based incentive awards are provided to employees under the terms of the company's long-term performance plans (the Plans). The Plans are administered by the Executive Compensation and Management Resources Committee of the Board of Directors. Awards available under the Plans principally include restricted stock units, performance share units, stock options or any combination thereof.

There were 293 million shares originally authorized to be awarded under the company's existing Plans and 66 million shares granted under previous plans that, if and when those awards were cancelled, could be reissued under the existing Plans. At December 31, 2022, 65 million unused shares were available to be granted.

Stock Awards

Stock awards for the periods presented were made in the form of Restricted Stock Units (RSUs), including Retention Restricted Stock Units (RRSUs), or Performance Share Units (PSUs).

The following table summarizes RSU and PSU activity under the Plans during the years ended December 31, 2022, 2021 and 2020.

	RSUs		PSUs	
	Weighted-Average Grant Price	Number of Units	Weighted-Average Grant Price	Number of Units
Balance at January 1, 2020	$ 123	11,326,628	$ 126	2,856,450
Awards granted	115	10,651,955	117	1,582,666
Awards released	126	(3,781,240)	137	(630,974)
Awards canceled/forfeited/ performance adjusted	121	(1,300,639)	125	(256,642)*
Balance at December 31, 2020	$ 117	16,896,704	$ 120	3,551,500 **
Awards granted	125	9,566,307	129	1,561,120
Awards released	120	(4,582,159)	129	(581,397)
Awards canceled/forfeited/ performance adjusted	119	(2,072,800)	124	(453,178)*
Kyndryl separation - adjustment	—	660,089	—	120,428
Kyndryl separation - cancellation	119	(1,429,661)	119	(469,616)
Balance at December 31, 2021	$ 116	19,038,480	$ 118	3,728,857 **
Awards granted	112	11,447,966	110	1,237,019
Awards released	114	(7,013,530)	114	(679,601)
Awards canceled/forfeited/ performance adjusted	116	(2,420,002)	116	(720,197)*
Balance at December 31, 2022	$ 115	21,052,914	$ 117	3,566,078 **

* Includes adjustments of (362,247), (223,397) and (70,089) PSUs for 2022, 2021 and 2020, respectively, because final performance metrics were above or below specified targets.

** Represents the number of shares expected to be issued based on achievement of grant date performance targets. The actual number of shares issued will depend on final performance against specified targets over the vesting period.

The total fair value of RSUs and PSUs granted and vested during the years ended December 31, 2022, 2021 and 2020 were as follows:

($ in millions)

For the year ended December 31:	2022	2021	2020
RSUs			
Granted	$1,288	$1,195	$1,220
Vested	801	549	478
PSUs			
Granted	$ 136	$ 201	$ 186
Vested	77	75	86

In connection with vesting and release of RSUs and PSUs, the tax benefits realized by the company for the years ended December 31, 2022, 2021 and 2020 were $249 million, $175 million and $139 million, respectively.

Stock Options

Stock options are awards which allow the employee to purchase shares of the company's stock at a fixed price. Stock options are granted at an exercise price equal to the company's average high and low stock price on the date of grant. These awards generally vest in four equal increments on the first four anniversaries of the grant date and have a contractual term of 10 years. The company estimates the fair value of stock options at the date of grant using a Black-Scholes valuation model. Key inputs and assumptions used to estimate the fair value of stock options include the grant price of the award, the expected option term, volatility of the company's stock, the risk-free rate and the company's dividend yield. For the stock options granted for the year ended December 31, 2022, the expected option term was determined from historical exercise patterns, volatility was based on an analysis of the company's historical stock prices over the expected option term, the risk-free rate was obtained from the U.S. Treasury yield curve in effect at the time of grant and the dividend yield was based on the company's expectation of paying dividends in the foreseeable future. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by employees who receive equity awards, and subsequent events are not indicative of the reasonableness of the original estimates of fair value made by the company. During the years ended December 31, 2021 and 2020, the company did not grant stock options and no material stock options were exercised, forfeited or cancelled. In 2022, stock options were primarily granted by the company as part of its executive compensation programs.

The weighted-average fair value of stock options granted for the year ended December 31, 2022 was $14.29. The fair value was estimated based on the following weighted-average assumptions:

For the year ended December 31:	2022
Expected term (years)	6.3
Expected volatility	25.5 %
Risk-free rate	2.0 %
Dividend yield	5.3 %

The following table summarizes option activity under the Plans during the year ended December 31, 2022.

	Weighted-Average Exercise Price	Number of Shares Under Option
Balance at January 1, 2022	$135	1,549,732
Options granted	125	5,044,353
Options exercised	—	—
Options forfeited/cancelled/expired	125	(319,560)
Balance at December 31, 2022	$128	6,274,525
Vested and exercisable at December 31, 2022	$135	1,549,732

The weighted-average remaining contractual term and the aggregate intrinsic value of stock options outstanding was 7.7 years and $87 million, respectively, at December 31, 2022. The weighted-average remaining contractual term and the aggregate intrinsic value of stock options vested and exercisable was 3.1 years and $12 million, respectively, at December 31, 2022. The total intrinsic value of stock options exercised for the years ended December 31, 2022, 2021 and 2020 was immaterial.

The company settles employee stock option exercises primarily with newly issued common shares and, occasionally, with treasury shares. Total treasury shares held at December 31, 2022 and 2021 were approximately 1,351 million shares.

Acquisitions
In connection with various acquisition transactions, there were 0.4 million stock options outstanding at December 31, 2022, as a result of the company's conversion of stock-based awards previously granted by acquired entities. The weighted-average exercise price of these stock options was $20 per share. No material stock awards were outstanding at December 31, 2022.

IBM Employees Stock Purchase Plan
Effective April 1, 2022, the company increased the discount for eligible participants to purchase shares of IBM common stock under its Employee Stock Purchase Plan (ESPP) from 5 percent to 15 percent off the average market price on the date of purchase. With this change, the ESPP is considered compensatory under the accounting requirements for stock-based compensation. The ESPP enables eligible participants to purchase shares of IBM common stock through payroll deductions of up to 10 percent of eligible compensation. Eligible compensation includes any compensation received by the employee during the year. The ESPP provides for semi-annual offering periods during which shares may be purchased and continues as long as shares remain available under the ESPP, unless terminated earlier at the discretion of the Board of Directors. Individual ESPP participants are restricted from purchasing more than $25,000 of common stock in one calendar year or 1,000 shares in an offering period.

Employees purchased approximately 2.4 million, 1.0 million and 1.1 million shares under the ESPP during the years ended December 31, 2022, 2021 and 2020, respectively. For the year ended December 31, 2022, the average market price of shares purchased was $114 per share and the total stock-based compensation cost was $43 million. Cash dividends declared and paid by the company on its common stock also include cash dividends on the company stock purchased through the ESPP. Dividends are paid on full and fractional shares and can be reinvested. The company stock purchased through the ESPP is considered outstanding and is included in the weighted-average outstanding shares for purposes of computing basic and diluted earnings per share.

Approximately 14.4 million shares were available for purchase under the ESPP at December 31, 2022.

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NOTE V. RETIREMENT-RELATED BENEFITS

Description of Plans

IBM sponsors the following retirement-related plans/benefits:

Plan		Eligibility	Funding	Benefit Calculation	Other
U.S. Defined Benefit (DB) Pension Plans	Qualified Personal Pension Plan (Qualified PPP)	U.S. regular, full-time and part-time employees hired prior to January 1, 2005	Company contributes to irrevocable trust fund, held for sole benefit of participants and beneficiaries	Vary based on the participant: Five-year, final pay formula based on salary, years of service, mortality and other participant-specific factors Cash balance formula based on percentage of employees' annual salary, as well as an interest crediting rate	Benefit accruals ceased December 31, 2007. Certain defined benefit pension obligations and related plan assets were transferred in 2022, as described below
	Excess Personal Pension Plan (Excess PPP)		Unfunded, provides benefits in excess of IRS limitations for qualified plans		
	Supplemental Executive Retention Plan (Retention Plan)	Eligible U.S. executives	Unfunded	Based on average earnings, years of service and age at termination of employment	
U.S. Defined Contribution (DC) Plans*	401(k) Plus	U.S. regular, full-time and part-time employees	All contributions are made in cash and invested in accordance with participants' investment elections	Dollar-for-dollar match, generally 5 or 6 percent of eligible compensation and automatic matching of 1, 2 or 4 percent of eligible compensation, depending on date of hire	Employees generally receive contributions after one year of service
	Excess 401(k) Plus	U.S. employees whose eligible compensation is expected to exceed IRS compensation limit for qualified plans	Unfunded, non-qualified amounts deferred are record-keeping (notional) accounts and are not held in trust for the participants, but may be invested in accordance with participants' investment elections (under the 401(k) Plus Plan options)	Company match and automatic contributions (at the same rate under the 401(k) Plus Plan) on eligible compensation deferred and on compensation earned in excess of the IRC pay limit. The percentage varies depending on eligibility and years of service	Employees generally receive contributions after one year of service. Amounts deferred into the Plan, including company contributions, are recorded as liabilities
U.S. Nonpension Postretirement Benefit Plan	Nonpension Postretirement Plan	Medical and dental benefits for eligible U.S. retirees and eligible dependents, as well as life insurance for eligible U.S. retirees	Company contributes to irrevocable trust fund, held for the sole benefit of participants and beneficiaries	Varies based on plan design formulas and eligibility requirements	Since January 1, 2004, new hires are not eligible for these benefits
Non-U.S. Plans	DB or DC	Eligible regular employees in certain non-U.S. subsidiaries or branches	Company deposits funds under various fiduciary-type arrangements, purchases annuities under group contracts or provides reserves for these plans	Based either on years of service and the employee's compensation (generally during a fixed number of years immediately before retirement) or on annual credits	In certain countries, benefit accruals have ceased and/or have been closed to new hires as of various dates
	Nonpension Postretirement Plan	Medical and dental benefits for eligible non-U.S. retirees and eligible dependents, as well as life insurance for certain eligible non-U.S. retirees	Primarily unfunded except for a few select countries where the company contributes to irrevocable trust funds held for the sole benefit of participants and beneficiaries	Varies based on plan design formulas and eligibility requirements by country	Most non-U.S. retirees are covered by local government sponsored and administered programs

* Matching and automatic contributions are made once at the end of the year for employees that are employed as of December 15 of the plan year. Contributions may be made for certain types of separations that occur prior to December 15. Beginning in 2023, matching and automatic contributions are made each pay period instead of annually.

Plan Financial Information

Summary of Financial Information

The following table presents a summary of the total retirement-related benefits net periodic (income)/cost recorded in the Consolidated Income Statement.

($ in millions)

	U.S. Plans			Non-U.S. Plans			Total		
For the year ended December 31:	**2022**	**2021**	**2020**	**2022**	**2021**	**2020**	**2022**	**2021**	**2020**
Defined benefit pension plans	$5,849 *	$ 303	$167	$ 836	$1,119	$1,057	$6,685	$1,422	$1,224
Retention Plan	8	16	11	—	—	—	8	16	11
Total defined benefit pension plans (income)/cost	$5,857 *	$ 319	$178	$ 836	$1,119	$1,057	$6,693	$1,438	$1,235
IBM 401(k) Plus Plan and non-U.S. plans	$ 530	$ 561	$585	$ 369	$ 409	$ 403	$ 899	$ 971	$ 988
Excess 401(k)	25	21	27	—	—	—	25	21	27
Total defined contribution plans cost	$ 555	$ 582	$612	$ 369	$ 409	$ 403	$ 924	$ 992	$1,015
Nonpension postretirement benefit plans cost	$ 85	$ 127	$145	$ 30	$ 44	$ 57	$ 115	$ 172	$ 202
Total retirement-related benefits net periodic cost	$6,497 *	$1,029	$934	$1,235	$1,573	$1,517	$7,732	$2,601	$2,451

* Includes the impact of a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion related to the Qualified PPP, as described below.

The following table presents a summary of the total PBO for defined benefit pension plans, APBO for nonpension postretirement benefit plans, fair value of plan assets and the associated funded status recorded in the Consolidated Balance Sheet.

($ in millions)

	Benefit Obligations		Fair Value of Plan Assets		Funded Status*	
At December 31:	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
U.S. Plans						
Overfunded plans						
Qualified PPP	$20,091 **	$46,458	$ 25,094 **	$ 51,852	$ 5,002	$ 5,395
Underfunded plans						
Excess PPP	$ 1,173	$ 1,441	$ —	$ —	$ (1,173)	$ (1,441)
Retention Plan	228	283	—	—	(228)	(283)
Nonpension postretirement benefit plan	2,369	3,404	10	8	(2,359)	(3,395)
Total underfunded U.S. plans	$ 3,771	$ 5,128	$ 10	$ 8	$ (3,761)	$ (5,119)
Non-U.S. Plans						
Overfunded plans						
Qualified defined benefit pension plans+	$15,443	$21,617	$ 18,677	$ 26,071	$ 3,234	$ 4,454
Nonpension postretirement benefit plans	7	—	7	—	0	—
Total overfunded non-U.S. plans	$15,450	$21,617	$ 18,684	$ 26,071	$ 3,234	$ 4,454
Underfunded plans						
Qualified defined benefit pension plans+	$11,361	$17,360	$ 9,694	$ 13,908	$ (1,667)	$ (3,452)
Nonqualified defined benefit pension plans+	4,457	6,120	—	—	(4,457)	(6,120)
Nonpension postretirement benefit plans	524	638	22	31	(502)	(607)
Total underfunded non-U.S. plans	$16,342	$24,118	$ 9,716	$ 13,939	$ (6,626)	$(10,179)
Total overfunded plans	$35,541	$68,075	$ 43,778	$ 77,924	$ 8,236	$ 9,850
Total underfunded plans	$20,113	$29,246	$ 9,726	$ 13,947	$(10,387)	$(15,300)

* Funded status is recognized in the Consolidated Balance Statement as follows: Asset amounts as prepaid pension assets; (Liability) amounts as compensation and benefits (current liability) and retirement and nonpension postretirement benefit obligations (noncurrent liability).

** Year-to-year reduction includes the transfer of $16 billion of pension benefit obligations and assets to the Insurers as discussed below.

\+ Non-U.S. qualified plans represent plans funded outside of the U.S. Non-U.S. nonqualified plans are unfunded.

At December 31, 2022, the company’s qualified defined benefit pension plans worldwide were 114 percent funded compared to the benefit obligations, with the U.S. Qualified PPP 125 percent funded. Overall, including nonqualified plans, the company’s defined benefit pension plans worldwide were 101 percent funded.

Defined Benefit Pension and Nonpension Postretirement Benefit Plan Financial Information

The following tables through page 112 represent financial information for the company’s retirement-related benefit plans, excluding defined contribution plans. The defined benefit pension plans under U.S. Plans consist of the Qualified PPP, the Excess PPP and the Retention Plan. The defined benefit pension plans and the nonpension postretirement benefit plans under non-U.S. Plans consist of all plans sponsored by the company’s subsidiaries. The nonpension postretirement benefit plan under U.S. Plan consists of only the U.S. Nonpension Postretirement Benefit Plan.

The following tables present the components of net periodic (income)/cost of the retirement-related benefit plans recognized in the Consolidated Income Statement, excluding defined contribution plans.

($ in millions)

	Defined Benefit Pension Plans					
	U.S. Plans			Non-U.S. Plans		
For the year ended December 31:	**2022**	**2021**	**2020**	**2022**	**2021**	**2020**
Service cost	$ —	$ —	$ —	$ 237	$ 300	$ 328
Interest cost*	1,129	1,109	1,501	493	424	541
Expected return on plan assets*	(1,729)	(1,802)	(2,169)	(1,016)	(1,115)	(1,229)
Amortization of transition assets*	—	—	—	—	—	—
Amortization of prior service costs/(credits)*	8	16	16	14	(12)	(9)
Recognized actuarial losses*	527	996	829	1,031	1,392	1,336
Curtailments and settlements*	5,923 **	—	—	47	94	49
Multi-employer plans	—	—	—	15	17	23
Other costs/(credits)	—	—	—	15	18	18
Total net periodic (income)/cost	$ 5,857 *	$ 319	$ 178	$ 836	$ 1,119	$ 1,057

($ in millions)

	Nonpension Postretirement Benefit Plans					
	U.S. Plan			Non-U.S. Plans		
For the year ended December 31:	**2022**	**2021**	**2020**	**2022**	**2021**	**2020**
Service cost	$ 5	$ 7	$ 9	$ 3	$ 4	$ 4
Interest cost*	85	65	103	24	27	35
Expected return on plan assets*	—	—	—	(2)	(3)	(4)
Amortization of transition assets*	—	—	—	—	—	—
Amortization of prior service costs/(credits)*	(10)	4	4	0	0	0
Recognized actuarial losses*	5	52	29	4	15	21
Curtailments and settlements*	—	—	—	0	0	0
Other costs/(credits)	—	—	—	0	0	0
Total net periodic cost	$ 85	$127	$145	$30	$44	$57

* These components of net periodic pension costs are included in other (income) and expense in the Consolidated Income Statement.

** Includes the impact of a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion related to the Qualified PPP, as described below.

IBM U.S. Pension and Nonpension Postretirement Plan Changes

Over the past several years, the company has taken actions to reduce the risk profile of its worldwide retirement-related plans, while at the same time increasing the funded status of the plans. As described in note A, "Significant Accounting Policies," in September 2022, the Qualified PPP irrevocably transferred to the Insurers approximately $16 billion of the Qualified PPP's defined benefit pension obligations and related plan assets, thereby reducing the company's pension obligations and assets by the same amount. This transaction further de-risks the company's retirement-related plans by eliminating the potential for the company to make future cash contributions to fund this portion of pension obligations being transferred to the Insurers.

Upon issuance of the group annuity contracts, the Qualified PPP's benefit obligations and administration for approximately 100,000 of the company's retirees and beneficiaries (the Transferred Participants) were transferred to the Insurers. Under the group annuity contracts, each Insurer has made an irrevocable commitment, and will be solely responsible, to pay 50 percent of the pension benefits of each Transferred Participant that are due on and after January 1, 2023. The transaction resulted in no changes to the benefits to be received by the Transferred Participants. The company recognized a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022 primarily related to the accelerated recognition of actuarial losses included within AOCI in the Consolidated Statement of Equity.

In September 2022, the company amended its U.S. Nonpension Postretirement Plan to transition coverage for Medicare-eligible participants to a new IBM-sponsored group Medicare Advantage program administered by UnitedHealthcare, starting January 1, 2023. The changes are intended to provide an enhanced member experience, better value and more comprehensive benefits to IBM participants. This change resulted in a decrease in nonpension postretirement benefit obligations and a corresponding decrease in AOCI.

The following table presents the changes in benefit obligations and plan assets of the company's retirement-related benefit plans, excluding DC plans.

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2022	2021	2022	2021	2022	2021	2022	2021
Change in benefit obligation								
Benefit obligation at January 1	$ 48,182	$52,237	$45,097	$50,447	$ 3,404	$ 3,791	$ 638	$ 756
Service cost	—	—	237	300	5	7	3	4
Interest cost	1,129	1,109	493	424	85	65	24	27
Plan participants' contributions	—	—	14	19	43	50	—	—
Acquisitions/divestitures, net	—	—	(45)	(70)	—	—	—	6
Actuarial losses/(gains)	(7,849)	(1,582)	(8,819)	(876)	(780)	(141)	(87)	(78)
Benefits paid from trust*	(3,133)	(3,181)	(1,572)	(1,736)	(385)	(369)	(6)	(6)
Direct benefit payments	(123)	(125)	(418)	(516)	(2)	(1)	(32)	(28)
Foreign exchange impact	—	—	(3,463)	(2,548)	—	—	(10)	(42)
Amendments/curtailments/ settlements/other*	(16,712)**	(276)	(262)	(347)	0	3	(1)	(1)
Benefit obligation at December 31	$ 21,493	$48,182	$31,261	$45,097	$ 2,369	$ 3,404	$ 531	$ 638
Change in plan assets								
Fair value of plan assets at January 1	$ 51,852	$54,386	$39,979	$42,308	$ 8	$ 15	$ 31	$ 40
Actual return on plan assets	(6,914)	924	(6,737)	1,686	—	—	3	(14)
Employer contributions	—	—	103	86	344	313	—	6
Acquisitions/divestitures, net	—	—	(20)	(87)	—	—	—	—
Plan participants' contributions	—	—	14	19	43	50	—	—
Benefits paid from trust*	(3,133)	(3,181)	(1,572)	(1,736)	(385)	(369)	(6)	(6)
Foreign exchange impact	—	—	(3,154)	(1,939)	—	—	2	6
Amendments/curtailments/ settlements/other*	(16,712)**	(276)	(243)	(358)	0	0	0	0
Fair value of plan assets at December 31	$ 25,094	$51,852	$28,371	$39,979	$ 10	$ 8	$ 29	$ 31
Funded status at December 31	$ 3,600	$ 3,671	$ (2,891)	$ (5,118)	$ (2,359)	$ (3,395)	$ (501)	$ (607)
Accumulated benefit obligation+	$ 21,493	$48,182	$30,961	$44,628	N/A	N/A	N/A	N/A

* Prior period amounts for defined benefit pension plans have been recast to conform to 2022 presentation.

** Primarily represents the transfer of Qualified PPP pension obligations and related plan assets to the Insurers pursuant to group annuity contracts.

\+ Represents the benefit obligation assuming no future participant compensation increases.

N/A–Not applicable

The following table presents the net funded status recognized in the Consolidated Balance Sheet.

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
At December 31:	2022	2021	2022	2021	2022	2021	2022	2021
Prepaid pension assets	$ 5,002	$ 5,395	$ 3,234	$ 4,455	$ 0	$ 0	$ 0	$ 0
Current liabilities—compensation and benefits	(121)	(123)	(347)	(359)	(307)	(364)	(16)	(19)
Noncurrent liabilities—retirement and nonpension postretirement benefit obligations	(1,281)	(1,601)	(5,777)	(9,215)	(2,052)	(3,031)	(486)	(588)
Funded status—net	$ 3,600	$ 3,671	$(2,891)	$(5,118)	$ (2,359)	$ (3,395)	$ (501)	$ (607)

The following table presents the pre-tax net loss, prior service costs/(credits) and transition (assets)/liabilities recognized in OCI and the changes in the pre-tax net loss, prior service costs/(credits) and transition (assets)/liabilities recognized in AOCI for the retirement-related benefit plans.

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2022	2021	2022	2021	2022	2021	2022	2021
Net loss at January 1	$14,273	$15,972	$13,412	$16,310	$ 464	$ 656	$ 183	$ 263
Current period loss/(gain)	794	(704)	(1,115)	(1,411)	(365)	(141)	(93)	(65)
Curtailments and settlements	(5,923)*	—	(47)	(94)	—	—	0	0
Amortization of net loss included in net periodic (income)/cost	(527)	(996)	(1,031)	(1,392)	(5)	(52)	(4)	(15)
Net loss at December 31	$ 8,617	$14,273	$11,219	$13,412	$ 94	$ 464	$ 86	$ 183
Prior service costs/(credits) at January 1	$ 8	$ 24	$ 397	$ 325	$ 26	$ 30	$ (4)	$ (4)
Current period prior service costs/(credits)	—	—	(53)	60	(415)	—	5	0
Curtailments, settlements and other	—	—	—	—	—	—	—	—
Amortization of prior service (costs)/credits included in net periodic (income)/cost	(8)	(16)	(14)	12	10	(4)	0	0
Prior service costs/(credits) at December 31	$ 0	$ 8	$ 330	$ 397	$ (379)	$ 26	$ 0	$ (4)
Transition (assets)/liabilities at January 1	$ —	$ —	$ 0	$ 0	$ —	$ —	$ 0	$ 0
Amortization of transition assets/(liabilities) included in net periodic (income)/cost	—	—	—	—	—	—	—	0
Transition (assets)/liabilities at December 31	$ —	$ —	$ 0	$ 0	$ —	$ —	$ 0	$ 0
Total loss recognized in accumulated other comprehensive income/(loss)**	$ 8,617	$14,281	$11,549	$13,809	$ (285)	$ 490	$ 86	$ 179

* Includes the impact of a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion related to the Qualified PPP, as described above.

** Refer to note S, “Equity Activity,” for the total change in AOCI, and the Consolidated Statement of Comprehensive Income for the components of net periodic (income)/cost, including the related tax effects, recognized in OCI for the retirement-related benefit plans.

Assumptions Used to Determine Plan Financial Information

Underlying both the measurement of benefit obligations and net periodic (income)/cost are actuarial valuations. These valuations use participant-specific information such as salary, age and years of service, as well as certain assumptions, the most significant of which include estimates of discount rates, expected return on plan assets, rate of compensation increases, interest crediting rates and mortality rates. The company evaluates these assumptions, at a minimum, annually, and makes changes as necessary.

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The following tables present the assumptions used to measure the net periodic (income)/cost and the year-end benefit obligations for retirement-related benefit plans.

	Defined Benefit Pension Plans					
	U.S. Plans			Non-U.S. Plans		
	2022	2021	2020	2022	2021	2020
Weighted-average assumptions used to measure net periodic (income)/cost for the year ended December 31						
Discount rate	3.30 %*	2.20 %	3.10 %	1.26 %	0.87 %	1.20 %
Expected long-term returns on plan assets	4.33 %*	3.75 %	4.50 %	2.97 %	2.85 %	3.36 %
Rate of compensation increase	N/A	N/A	N/A	3.02 %	2.59 %	2.32 %
Interest crediting rate	2.07 %*	1.10 %	2.70 %	0.26 %	0.26 %	0.28 %
Weighted-average assumptions used to measure benefit obligations at December 31						
Discount rate	5.30 %	2.60 %	2.20 %	3.80 %	1.26 %	0.87 %
Rate of compensation increase	N/A	N/A	N/A	4.00 %	3.02 %	2.59 %
Interest crediting rate	4.40 %	1.10 %	1.10 %	0.34 %	0.26 %	0.26 %

* The Qualified PPP discount rate, expected long-term return on plan assets and interest crediting rate of 2.60 percent, 4.00 percent and 1.10 percent, respectively, for the period January 1, 2022 through August 31, 2022, changed to 4.70 percent, 5.00 percent and 4.00 percent, respectively, for the period September 1, 2022 through December 31, 2022 due to remeasurement of the plan as a result of the changes described on page 110.

N/A–Not applicable

	Nonpension Postretirement Benefit Plans					
	U.S. Plan			Non-U.S. Plans		
	2022	2021	2020	2022	2021	2020
Weighted-average assumptions used to measure net periodic cost for the year ended December 31						
Discount rate	3.05 %*	1.80 %	2.80 %	5.35 %	4.55 %	5.08 %
Expected long-term returns on plan assets	N/A	N/A	N/A	6.64 %	6.62 %	7.73 %
Interest crediting rate	2.16 %*	1.10 %	2.70 %	N/A	N/A	N/A
Weighted-average assumptions used to measure benefit obligations at December 31						
Discount rate	5.30 %	2.30 %	1.80 %	7.25 %	5.35 %	4.55 %
Interest crediting rate	4.40 %	1.10 %	1.10 %	N/A	N/A	N/A

* The U.S. Nonpension Postretirement Plan discount rate and interest crediting rate of 2.30 percent and 1.10 percent, respectively, for the period January 1, 2022 through July 31, 2022, changed to 4.10 percent and 3.65 percent, respectively, for the period August 1, 2022 through December 31, 2022 due to remeasurement of the plan as a result of the changes described on page 110.

N/A–Not applicable

Item	Description of Assumptions
Discount Rate	Changes in discount rate assumptions impact net periodic (income)/cost and the PBO. For the U.S. and certain non-U.S. countries, a portfolio of high-quality corporate bonds is used to construct a yield curve. Cash flows from the company's expected benefit obligation payments are matched to the yield curve to derive the discount rates. In other non-U.S. countries where the markets for high-quality long-term bonds are not as well developed, a portfolio of long-term government bonds is used as a base, and a credit spread is added to simulate corporate bond yields at these maturities in the jurisdiction of each plan. This is the benchmark for developing the respective discount rates.
Expected Long-Term Returns on Plan Assets	Represents the expected long-term returns on plan assets based on the calculated market-related value of plan assets and considers long-term expectations for future returns and the investment policies and strategies discussed on pages 114 to 115. These rates of return are developed and tested for reasonableness against historical returns by the company. The use of expected returns may result in pension income that is greater or less than the actual return of those plan assets in a given year. Over time, however, the expected long-term returns are designed to approximate the actual long-term returns, and therefore result in a pattern of income or loss recognition that more closely matches the pattern of the services provided by the employees. The difference between actual and expected returns is recognized as a component of net loss or gain in AOCI, which is amortized as a component of net periodic (income)/cost over the service lives or life expectancy of the plan participants, depending on the plan, provided such amounts exceed certain thresholds provided by accounting standards. The market-related value of plan assets recognizes changes in the fair value of plan assets systematically over a five-year period in the expected return on plan assets line in net periodic (income)/cost. The projected long-term rate of return on plan assets for 2023 is 5.50 percent for U.S. and 4.44 percent for non-U.S. DB Plans.
Rate of Compensation Increases and Mortality Assumptions	Compensation rate increases are determined based on the company's long-term plans for such increases. These rate increases are not applicable to the U.S. DB pension plans as benefit accruals ceased December 31, 2007. Mortality assumptions are based on life expectancy and death rates for different types of participants and are periodically updated based on actual experience.
Interest Crediting Rate	Benefits for certain participants in the PPP are calculated using a cash balance formula. An assumption underlying this formula is an interest crediting rate, which impacts both net periodic (income)/cost and the PBO. This provides the basis for projecting the expected interest rate that plan participants will earn on the benefits that they are expected to receive in the following year and is based on the average from August to October of the one-year U.S. Treasury Constant Maturity yield plus one percent.
Healthcare Cost Trend Rate	For nonpension postretirement benefit plans, the company determines healthcare cost trend rates based on medical cost inflation expectations in each market and IBM's plan characteristics. The healthcare cost trend rate is an important consideration when setting future expectations for plan costs or benefit obligations, taking into account the terms of the plan which limit the company's future obligations to the participants. The company's U.S. healthcare cost trend rate assumption for 2023 is 5.40 percent and is expected to decrease to 4.15 percent over approximately 14 years.

Plan Assets

Retirement-related benefit plan assets are recognized and measured at fair value. Because of the inherent uncertainty of valuations, these fair value measurements may not necessarily reflect the amounts the company could realize in current market transactions.

Investment Policies and Strategies

The investment objectives of the Qualified PPP portfolio are designed to generate returns that will enable the plan to meet its future obligations. The precise amount for which these obligations will be settled depends on future events, including the retirement dates and life expectancy of the plans' participants. The obligations are estimated using actuarial assumptions, based on the current economic environment and other pertinent factors described above. The Qualified PPP portfolio's investment strategy balances the requirement to generate returns, using potentially higher yielding assets such as equity securities, with the need to control risk in the portfolio with less volatile assets, such as fixed-income securities. Risks include, among others, inflation, volatility in equity values and changes in interest rates that could cause the plan to become underfunded, thereby increasing its dependence on contributions from the company. To mitigate any potential concentration risk, careful consideration is given to balancing the portfolio among industry sectors, companies and geographies, taking into account interest rate sensitivity, dependence on economic growth, currency and other

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factors that affect investment returns. There were no significant changes to investment strategy made in 2022 and none are planned for 2023. The Qualified PPP portfolio's target allocation is 8 percent equity securities, 83 percent fixed-income securities, 4 percent real estate and 5 percent other investments.

The assets are managed by professional investment firms and investment professionals who are employees of the company. They are bound by investment mandates determined by the company's management and are measured against specific benchmarks. Among these managers, consideration is given, but not limited to, balancing security concentration, issuer concentration, investment style and reliance on particular active and passive investment strategies.

Market liquidity risks are tightly controlled, with $3,159 million of the Qualified PPP portfolio as of December 31, 2022 invested in private market assets consisting of private equities and private real estate investments, which are less liquid than publicly traded securities. In addition, the Qualified PPP portfolio had $1,137 million in commitments for future investments in private markets to be made over a number of years. These commitments are expected to be funded from plan assets.

Derivatives are used as an effective means to achieve investment objectives and/or as a component of the plan's risk management strategy. The primary reasons for the use of derivatives are fixed income management, including duration, interest rate management and credit exposure, cash equitization and to manage currency strategies.

Outside the U.S., the investment objectives are similar to those described previously, subject to local regulations. The weighted-average target allocation for the non-U.S. plans is 17 percent equity securities, 62 percent fixed-income securities, 3 percent real estate, 13 percent insurance contracts and 5 percent other investments, which is consistent with the allocation decisions made by the company's management. In some countries, a higher percentage allocation to fixed income is required to manage solvency and funding risks. In others, the responsibility for managing the investments typically lies with a board that may include up to 50 percent of members elected by employees and retirees. This can result in slight differences compared with the strategies previously described. The percentage of non-U.S. plans investment in assets that are less liquid is consistent with the U.S. plan. The use of derivatives is also consistent with the U.S. plan and mainly for currency hedging, interest rate risk management, credit exposure and alternative investment strategies.

The company's nonpension postretirement benefit plans are underfunded or unfunded. For some plans, the company maintains a nominal, highly liquid trust fund balance to ensure timely benefit payments.

Defined Benefit Pension Plan Assets

The following table presents the company's defined benefit pension plans' asset classes and their associated fair value at December 31, 2022. The U.S. Plan consists of the Qualified PPP and the non-U.S. Plans consist of all plans sponsored by the company's subsidiaries.

($ in millions)

	U.S. Plan				Non-U.S. Plans			
	Level 1	**Level 2**	**Level 3**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Total**
Equity								
Equity securities [1]	$ 518	$ —	$ —	$ 518	$ 247	$ —	$ —	$ 247
Equity mutual funds [2]	114	—	—	114	0	—	—	0
Fixed income								
Government and related [3]	—	9,074	—	9,074	—	6,837	—	6,837
Corporate bonds [4]	—	6,885	721	7,606	—	2,546	—	2,546
Mortgage and asset-backed securities	—	238	—	238	—	2	—	2
Fixed income mutual funds [5]	234	—	—	234	—	—	9	9
Insurance contracts [6]	—	—	—	—	—	3,654	—	3,654
Cash and short-term investments [7]	72	570	—	643	286	263	—	549
Private equity	—	—	421	421	—	—	—	—
Real estate	—	8	—	8	—	—	145	145
Derivatives [8]	—	—	—	—	32	262	—	294
Other mutual funds[9]	—	—	—	—	25	—	—	25
Subtotal	937	16,776	1,142	18,855	590	13,563	155	14,308
Investments measured at net asset value using the NAV practical expedient [10]	—	—	—	6,242	—	—	—	14,141
Other [11]	—	—	—	(4)	—	—	—	(78)
Fair value of plan assets	$ 937	$16,776	$1,142	$25,094	$ 590	$13,563	$155	$28,371

[1] Represents U.S. and international securities. The U.S. Plan includes IBM common stock of $1 million. Non-U.S. Plans include IBM common stock of $2 million.

[2] Invests in predominantly equity securities.

[3] Includes debt issued by national, state and local governments and agencies.

[4] The U.S. Plans include IBM corporate bonds of $6 million. Non-U.S. Plans include IBM corporate bonds of $3 million.

[5] Invests predominantly in fixed-income securities.

[6] Primarily represents insurance policy contracts (Buy-In) in certain non-U.S. plans.

[7] Includes cash, cash equivalents and short-term marketable securities.

[8] Includes interest-rate derivatives, forwards, exchange-traded and other over-the-counter derivatives.

[9] Invests in both equity and fixed-income securities.

[10] Investments measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient, including commingled funds, hedge funds, private equity and real estate partnerships.

[11] Represents net unsettled transactions, relating primarily to purchases and sales of plan assets.

The U.S. nonpension postretirement benefit plan assets of $10 million were invested primarily in cash equivalents, categorized as Level 1 in the fair value hierarchy. The non-U.S. nonpension postretirement benefit plan assets of $29 million, primarily in Brazil, and, to a lesser extent, in Mexico and South Africa, were invested primarily in government and related fixed-income securities and corporate bonds, categorized as Level 2 in the fair value hierarchy.

The following table presents the company's defined benefit pension plans' asset classes and their associated fair value at December 31, 2021. The U.S. Plan consists of the Qualified PPP and the non-U.S. Plans consist of all plans sponsored by the company's subsidiaries.

($ in millions)

	U.S. Plan				Non-U.S. Plans			
	Level 1	**Level 2**	**Level 3**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Total**
Equity								
Equity securities [1]	$ 2,023	$ 0	$ —	$ 2,023	$ 485	$ —	$ —	$ 485
Equity mutual funds [2]	133	—	—	133	0	—	—	0
Fixed income								
Government and related [3]	—	21,751	—	21,751	—	9,900	—	9,900
Corporate bonds [4]	—	16,246	598	16,844	—	3,842	—	3,842
Mortgage and asset-backed securities	—	660	—	660	—	3	—	3
Fixed income mutual funds [5]	281	—	—	281	—	—	—	—
Insurance contracts [6]	—	—	—	—	—	5,662	—	5,662
Cash and short-term investments [7]	104	1,269	—	1,373	324	403	—	728
Real estate	—	—	—	—	—	—	174	174
Derivatives [8]	3	3	—	5	61	489	—	550
Other mutual funds [9]	—	—	—	—	30	—	—	30
Subtotal	2,543	39,930	598	43,070	900	20,300	174	21,374
Investments measured at net asset value using the NAV practical expedient [10]	—	—	—	9,078	—	—	—	18,652
Other [11]	—	—	—	(296)	—	—	—	(47)
Fair value of plan assets	$ 2,543	$39,930	$598	$51,852	$ 900	$20,300	$174	$39,979

(1) Represents U.S. and international securities. The U.S. Plan includes IBM common stock of $2 million. Non-U.S. Plans include IBM common stock of $2 million.

(2) Invests in predominantly equity securities.

(3) Includes debt issued by national, state and local governments and agencies.

(4) The U.S. Plans include IBM corporate bonds of $19 million. Non-U.S. Plans include IBM corporate bonds of $4 million.

(5) Invests in predominantly fixed-income securities.

(6) Primarily represents insurance policy contracts (Buy-In) in certain non-U.S. plans.

(7) Includes cash, cash equivalents and short-term marketable securities.

(8) Includes interest-rate derivatives, forwards, exchange-traded and other over-the-counter derivatives.

(9) Invests in both equity and fixed-income securities.

(10) Investments measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient, including commingled funds, hedge funds, private equity and real estate partnerships.

(11) Represents net unsettled transactions, relating primarily to purchases and sales of plan assets.

The U.S. nonpension postretirement benefit plan assets of $8 million were invested in cash equivalents, categorized as Level 1 in the fair value hierarchy. The non-U.S. nonpension postretirement benefit plan assets of $31 million, primarily in Brazil, and, to a lesser extent, in Mexico and South Africa, were invested primarily in government and related fixed-income securities and corporate bonds, categorized as Level 2 in the fair value hierarchy.

The following tables present the reconciliation of the beginning and ending balances of Level 3 assets for the years ended December 31, 2022 and 2021 for the U.S. Plan.

($ in millions)

	Corporate Bonds	**Private Equity**	**Total**
Balance at January 1, 2022	$ 598	$ —	$ 598
Return on assets held at end of year	(114)	—	(114)
Return on assets sold during the year	(2)	—	(2)
Purchases, sales and settlements, net	206	—	206
Transfers, net	33	421	454
Balance at December 31, 2022	$ 721	$421	$1,142

($ in millions)

	Corporate Bonds
Balance at January 1, 2021	$ 542
Return on assets held at end of year	(15)
Return on assets sold during the year	1
Purchases, sales and settlements, net	63
Transfers, net	6
Balance at December 31, 2021	$ 598

The following tables present the reconciliation of the beginning and ending balances of Level 3 assets for the years ended December 31, 2022 and 2021 for the non-U.S. Plans.

($ in millions)

	Government and Related	Private Real Estate	Total
Balance at January 1, 2022	$ —	$ 174	$ 174
Return on assets held at end of year	0	6	6
Return on assets sold during the year	—	(1)	(1)
Purchases, sales and settlements, net	10	(16)	(7)
Transfers, net	—	0	0
Foreign exchange impact	0	(18)	(19)
Balance at December 31, 2022	$ 9	$ 145	$ 155

($ in millions)

	Government and Related	Private Real Estate	Total
Balance at January 1, 2021	$ 2	$ 298	$ 300
Return on assets held at end of year	0	(43)	(43)
Return on assets sold during the year	0	58	58
Purchases, sales and settlements, net	(2)	(138)	(140)
Transfers, net	—	—	—
Foreign exchange impact	0	(1)	(1)
Balance at December 31, 2021	$ —	$ 174	$ 174

Valuation Techniques

The following is a description of the valuation techniques used to measure plan assets at fair value. There were no changes in valuation techniques during 2022 and 2021.

Equity securities are valued at the closing price reported on the stock exchange on which the individual securities are traded. IBM common stock is valued at the closing price reported on the New York Stock Exchange. Mutual funds are typically valued based on quoted market prices. These assets are generally classified as Level 1.

The fair value of fixed-income securities is typically estimated using pricing models, quoted prices of securities with similar characteristics or discounted cash flows and are generally classified as Level 2. If available, they are valued using the closing price reported on the major market on which the individual securities are traded.

Cash includes money market accounts that are valued at their cost plus interest on a daily basis, which approximates fair value. Short-term investments represent securities with original maturities of one year or less. These assets are classified as Level 1 or Level 2.

Real estate valuations require significant judgment due to the absence of quoted market prices, the inherent lack of liquidity and the long-term nature of such assets. These assets are initially valued at cost and are reviewed periodically utilizing available and relevant market data, including appraisals, to determine if the carrying value of these assets should be adjusted. These assets are classified as Level 3.

Exchange-traded derivatives are valued at the closing price reported on the exchange on which the individual securities are traded, while forward contracts are valued using a mid-close price. Over-the-counter derivatives are typically valued using pricing models. The models require a variety of inputs, including, for example, yield curves, credit curves, measures of volatility and foreign exchange rates. These assets are classified as Level 1 or Level 2 depending on availability of quoted market prices.

Certain investments are measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient. These investments, which include commingled funds, hedge funds, private equity and real estate partnerships, are typically valued using the NAV provided by the administrator of the fund and reviewed by the company. The NAV is based on the value of the underlying assets owned by the fund, minus liabilities and divided by the number of shares or units outstanding.

Contributions and Direct Benefit Payments

It is the company's general practice to fund amounts for pensions sufficient to meet the minimum requirements set forth in applicable employee benefits laws and local tax laws. From time to time, the company contributes additional amounts as it deems appropriate.

The following table presents the contributions made to the non-U.S. DB plans, nonpension postretirement benefit plans, multi-employer plans, DC plans and direct benefit payments for 2022 and 2021. The cash contributions to the multi-employer plans represent the annual cost included in the net periodic (income)/cost recognized in the Consolidated Income Statement. The company's participation in multi-employer plans has no material impact on the company's financial statements.

($ in millions)

For the years ended December 31:	2022	2021
Non-U.S. DB plans	$ 103	$ 86
Nonpension postretirement benefit plans	344	319
Multi-employer plans	15	17
DC plans	924	992
Direct benefit payments	576	671
Total	$ 1,962	$ 2,085

In 2022 and 2021, $349 million and $416 million, respectively, of contributions to the non-U.S. DB plans and nonpension postretirement benefit plans were made in U.S. Treasury securities. Additionally, in 2022 and 2021, contributions of $557 million and $424 million, respectively, were made to the Active Medical Trust in U.S. Treasury securities. Contributions made with U.S. Treasury securities are considered a non-cash transaction.

Defined Benefit Pension Plans

In 2023, the company is not legally required to make any contributions to the U.S. defined benefit pension plans. However, depending on market conditions, or other factors, the company may elect to make discretionary contributions to the Qualified PPP during the year.

In 2023, the company estimates contributions to its non-U.S. defined benefit and multi-employer plans to be approximately $200 million, the largest of which will be contributed to defined benefit pension plans in India and Spain. This amount generally represents legally mandated minimum contributions.

Financial market performance in 2023 could increase the legally mandated minimum contribution in certain countries which require monthly or daily remeasurement of the funded status. The company could also elect to contribute more than the legally mandated amount based on market conditions or other factors.

Expected Benefit Payments

Defined Benefit Pension Plan Expected Payments

The following table presents the total expected benefit payments to defined benefit pension plan participants subsequent to the transfer of Qualified PPP's defined benefit pension obligations and related plan assets, as described above. These payments have been estimated based on the same assumptions used to measure the plans' PBO at December 31, 2022 and include benefits attributable to estimated future compensation increases, where applicable.

($ in millions)

	Qualified U.S. Plan Payments	Nonqualified U.S. Plans Payments	Qualified Non-U.S. Plans Payments	Nonqualified Non-U.S. Plans Payments	Total Expected Benefit Payments
2023	$1,757	$ 124	$ 1,893	$ 342	$ 4,115
2024	1,791	123	1,869	323	4,106
2025	1,813	121	1,879	324	4,137
2026	1,765	119	1,866	328	4,077
2027	1,712	116	1,846	321	3,996
2028-2032	7,792	538	8,876	1,548	18,754

The 2023 expected benefit payments to defined benefit pension plan participants not covered by the respective plan assets (underfunded plans) represent a component of compensation and benefits, within current liabilities, in the Consolidated Balance Sheet.

Nonpension Postretirement Benefit Plan Expected Payments

The following table presents the total expected benefit payments to nonpension postretirement benefit plan participants. These payments have been estimated based on the same assumptions used to measure the plans' APBO at December 31, 2022.

($ in millions)

	U.S. Plan Payments	Qualified Non-U.S. Plans Payments	Nonqualified Non-U.S. Plans Payments	Total Expected Benefit Payments
2023	$ 326	$ 17	$ 23	$ 367
2024	253	18	23	294
2025	238	19	23	280
2026	229	20	22	272
2027	220	21	22	263
2028-2032	1,043	122	106	1,271

The 2023 expected benefit payments to nonpension postretirement benefit plan participants not covered by the respective plan assets represent a component of compensation and benefits, within current liabilities, in the Consolidated Balance Sheet.

Other Plan Information

The following table presents information for defined benefit pension plans with accumulated benefit obligations (ABO) in excess of plan assets. For a more detailed presentation of the funded status of the company's defined benefit pension plans, see the table on page 111.

($ in millions)

	2022		2021	
At December 31:	**Benefit Obligation**	**Plan Assets**	**Benefit Obligation**	**Plan Assets**
Plans with PBO in excess of plan assets	$17,220	$ 9,694	$25,204	$13,908
Plans with ABO in excess of plan assets	16,979	9,694	24,853	13,908
Plans with plan assets in excess of PBO	35,534	43,770	68,075	77,924

The following table presents information for the nonpension postretirement benefit plan with APBO in excess of plan assets. For a more detailed presentation of the funded status of the company's nonpension postretirement benefit plans, see the table on page 111.

($ in millions)

	2022		2021	
At December 31:	**Benefit Obligation**	**Plan Assets**	**Benefit Obligation**	**Plan Assets**
Plans with APBO in excess of plan assets	$2,893	$32	$4,042	$40
Plans with plan assets in excess of APBO	7	7	—	—

NOTE W. SUBSEQUENT EVENTS

On January 31, 2023, the company announced that the Board of Directors approved a quarterly dividend of $1.65 per common share. The dividend is payable March 10, 2023 to shareholders of record on February 10, 2023.

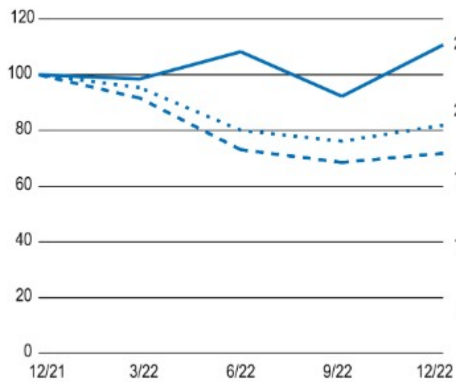
On January 27, 2023, the company issued $0.7 billion of Japanese yen floating-rate syndicated bank loans with a maturity of 5 years. On February 6, 2023, the company issued $4.6 billion of Euro fixed-rate notes in tranches with maturities ranging from 4 to 20 years and coupons ranging from 3.375 to 4 percent; $0.9 billion of Pound sterling fixed-rate notes with a maturity of 15 years and a coupon of 4.875 percent; and $3.25 billion of U.S. dollar fixed-rate notes in tranches with maturities ranging from 3 to 30 years and coupons ranging from 4.5 to 5.1 percent.

COMPARISON OF ONE-, THREE- AND FIVE-YEAR CUMULATIVE TOTAL RETURN FOR IBM, S&P 500 STOCK INDEX AND S&P INFORMATION TECHNOLOGY INDEX

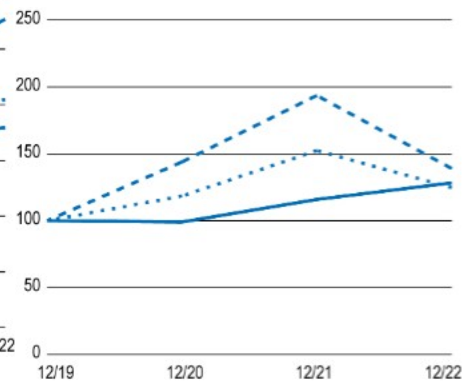
The following graphs compare the one-, three- and five-year cumulative total returns for IBM common stock with the comparable cumulative returns of certain Standard & Poor's (S&P) indices. Due to the fact that IBM is a company included in the S&P 500 Stock Index, the SEC's rules require the use of that index for the required five-year graph. Under those rules, the second index used for comparison may be a published industry or line-of-business index. The S&P Information Technology Index is such an index. IBM is also included in this index.

The graph assumes $100 invested on December 31 (of the initial year shown in the graph) in IBM common stock and $100 invested on the same date in each of the S&P indices. The comparisons assume that all dividends are reinvested. On November 3, 2021, we completed the separation of Kyndryl. IBM stockholders received one share of common stock in Kyndryl for every five shares of IBM common stock held at the close of business on October 25, 2021, the record date for the distribution. The effect of the Kyndryl transaction is reflected in the cumulative total return as reinvested dividends.

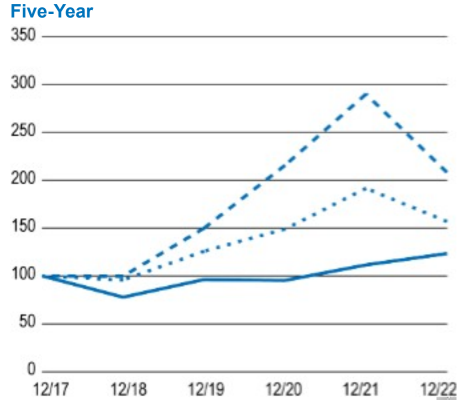
One-Year



Three-Year



Five-Year



One-Year

(U.S. Dollar)		12/2021	3/2022	6/2022	9/2022	12/2022
	International Business Machines	$100.00	$98.47	$108.24	$92.25	$110.70
• • • •	S & P 500	100.00	95.40	80.04	76.13	81.89
- - - -	S & P Information Technology	100.00	91.64	73.09	68.56	71.81

Three-Year

(U.S. Dollar)		2019	2020	2021	2022
	International Business Machines	$100.00	$ 99.04	$115.88	$128.29
• • • •	S & P 500	100.00	118.40	152.39	124.79
- - - -	S & P Information Technology	100.00	143.89	193.58	139.00

Five-Year

(U.S. Dollar)		2017	2018	2019	2020	2021	2022
	International Business Machines	$100.00	$77.62	$ 96.13	$ 95.21	$ 111.40	$123.32
• • • •	S & P 500	100.00	95.62	125.72	148.85	191.58	156.89
- - - -	S & P Information Technology	100.00	99.71	149.86	215.63	290.08	208.30

IBM Stockholder Services
Stockholders with questions about their accounts should contact:

Computershare Trust Company, N.A., P.O. Box 43078, Providence, Rhode Island 02940-3078, (888) IBM-6700.

Investors residing outside the United States, Canada and Puerto Rico should call (781) 575-2727.

Stockholders can also reach Computershare Trust Company, N.A. via e-mail at: ibm@computershare.com

Hearing-impaired stockholders with access to a telecommunications device (TDD) can communicate directly with Computershare Trust Company, N.A., by calling (800) 490-1493. Stockholders residing outside the United States, Canada and Puerto Rico should call (781) 575-2694.

IBM on the Internet
Topics featured in this Annual Report can be found online at www.ibm.com. Financial results, news on IBM products, services and other activities can also be found at that website.

IBM files reports with the Securities and Exchange Commission (SEC), including the annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any other filings required by the SEC.

IBM's website (www.ibm.com/investor) contains a significant amount of information about IBM, including the company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC. These materials are available free of charge on or through IBM's website.

The SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Computershare Investment Plan (CIP)
(formerly IBM Investor Services Program)
The Computershare Investment Plan brochure outlines a number of services provided for IBM stockholders and potential IBM investors, including the reinvestment of dividends, direct purchase and the deposit of IBM stock certificates for safekeeping. The brochure is available at www.computershare.com/ibmcip or by calling (888) IBM-6700. Investors residing outside the United States, Canada and Puerto Rico should call (781) 575-2727.

Investors with other requests may write to: IBM Stockholder Relations, New Orchard Road, M/D 325, Armonk, New York 10504.

IBM Stock
IBM common stock is listed on the New York Stock Exchange and the NYSE Chicago under the symbol "IBM".

Stockholder Communications
Stockholders can get quarterly financial results and voting results from the Annual Meeting by calling (914) 499-7777, by sending an e-mail to infoibm@us.ibm.com, or by writing to IBM Stockholder Relations, New Orchard Road, M/D 325, Armonk, New York 10504.

Annual Meeting
The IBM Annual Meeting of Stockholders will be held on Tuesday, April 25, 2023, at 10 a.m. (ET).

Literature for IBM Stockholders
The literature mentioned below on IBM is available without charge from:

Computershare Trust Company, N.A., P.O. Box 43078, Providence, Rhode Island 02940-3078, (888) IBM-6700.

Investors residing outside the United States, Canada and Puerto Rico should call (781) 575-2727.

The company's annual report on Form 10-K and the quarterly reports on Form 10-Q provide additional information on IBM's business. The 10-K report is released by the end of February; 10-Q reports are released by early May, August and November.

An audio recording of the 2022 Annual Report will be available for sight-impaired stockholders in June 2023.

The IBM ESG Report reflects IBM's belief that corporate responsibility drives long-term value not just in our business, but also for IBM stakeholders. Our 2021 ESG Report, *IBM Impact*, and the related addendum are available online at https://www.ibm.com/impact.

General Information
Stockholders of record can receive account information and answers to frequently asked questions regarding stockholder accounts online at www.ibm.com/investor. Stockholders of record can also consent to receive future IBM Annual Reports and Proxy Statements online through this site.

For answers to general questions about IBM from within the continental United States, call (800) IBM-4YOU. From outside the United States, Canada and Puerto Rico, call (914) 499-1900.

EXHIBIT 21

INTERNATIONAL BUSINESS MACHINES CORPORATION SUBSIDIARIES

Subsidiaries—as of December 31, 2022

Company Name	State or country of incorporation or organization	Voting percent owned directly or indirectly by registrant
IBM Argentina Sociedad de Responsabilidad Limitada	Argentina	100
IBM Australia Limited	Australia	100
IBM Global Financing Australia Limited	Australia	100
IBM Oesterreich Internationale Bueromaschinen Gesellschaft m.b.H.	Austria	100
Red Hat Austria GmbH	Austria	100
IBM Bahamas Limited	Bahamas	100
IBM Belgium Financial Services Company BV/SRL	Belgium	100
International Business Machines of Belgium BV/SRL	Belgium	100
WTC Insurance Corporation, Ltd.	Bermuda	100
IBM Brasil—Industria, Maquinas e Servicos Limitada	Brazil	100
Banco IBM S.A.	Brazil	100
IBM Bulgaria Ltd.	Bulgaria	100
IBM Canada Limited—IBM Canada Limitee	Canada	100
IBM Global Financing Canada Corporation	Canada	100
IBM de Chile S.A.C.	Chile	100
IBM Global Financing de Chile SpA	Chile	100
IBM (China) Investment Company Limited	China (P.R.C.)	100
IBM (China) Co., Ltd.	China (P.R.C.)	100
IBM de Colombia S.A.S.	Colombia	100
IBM Business Transformation Center, S.r.l.	Costa Rica	100
IBM Croatia Ltd./IBM Hrvatska d.o.o.	Croatia	100
IBM Ceska Republika spol. s.r.o.	Czech Republic	100
IBM Danmark ApS	Denmark	100
IBM Global Financing Danmark ApS	Denmark	100
Red Hat APS	Denmark	100
IBM del Ecuador, C.A.	Ecuador	100
IBM Egypt Business Support Services	Egypt	100
IBM Eesti Osauhing (IBM Estonia Ou)	Estonia	100
IBM Global Financing Finland Oy	Finland	100
Oy IBM Finland AB	Finland	100
Compagnie IBM France, S.A.S.	France	100
IBM France Financement, SAS	France	100
RED HAT FRANCE	France	100
IBM Deutschland GmbH	Germany	100
IBM Deutschland Kreditbank GmbH	Germany	100
IBM Global Financing Deutschland GmbH	Germany	100
Red Hat GmbH	Germany	100
IBM Hellas Information Handling Systems S.A.	Greece	100
IBM China/Hong Kong Limited	Hong Kong	100

Company Name	State or country of incorporation or organization	Voting percent owned directly or indirectly by registrant
IBM Magyarorszagi Kft.	Hungary	100
IBM India Private Limited	India	100
PT IBM Indonesia	Indonesia	100
IBM Ireland Limited	Ireland	100
IBM Ireland Product Distribution Limited	Ireland	100
RED HAT LIMITED	Ireland	100
IBM Israel Ltd.	Israel	100
IBM Capital Italia S.r.l.	Italy	100
IBM Italia Servizi Finanziari S.r.l.	Italy	100
IBM Italia S.p.A.	Italy	100
IBM Japan Credit LLC	Japan	100
IBM Japan, Ltd.	Japan	100
IBM East Africa Limited	Kenya	100
IBM Global Financing Korea Limited	Korea (South)	100
IBM Korea, Inc.	Korea (South)	100
IBM Kuwait SPC	Kuwait	100
Sabiedriba ar irobezotu atbildibu IBM Latvija	Latvia	100
UAB "IBM Lietuva"	Lithuania	100
IBM Luxembourg Sarl	Luxembourg	100
IBM CAPITAL MALAYSIA SDN. BHD.	Malaysia	100
IBM Malaysia Sdn. Bhd.	Malaysia	100
IBM Malta Limited	Malta	100
International Business Machines (Mauritius) Limited	Mauritius	100
IBM Capital Mexico I, S. de R.L. de C.V.	Mexico	100
IBM de Mexico, Comercializacion y Servicios S. de R.L. de C.V.	Mexico	100
IBM Maroc	Morocco	100
IBM International Group B.V.	Netherlands	100
IBM Nederland Financieringen B.V.	Netherlands	100
IBM Nederland B.V.	Netherlands	100
IBM New Zealand Limited	New Zealand	100
RED HAT NEW ZEALAND LIMITED	New Zealand	100
International Business Machines West Africa Limited	Nigeria	100
IBM Finans Norge AS	Norway	100
International Business Machines AS	Norway	100
IBM Capital Peru S.A.C.	Peru	100
IBM del Peru, S.A.C.	Peru	100
IBM Philippines, Incorporated	Philippines	100
IBM Global Financing Polska Sp. z.o.o.	Poland	100
IBM Polska Sp. z.o.o.	Poland	100
Companhia IBM Portuguesa, S.A.	Portugal	100
IBM Qatar LLC	Qatar	100
IBM Romania Srl	Romania	100
IBM—International Business Machines d.o.o., Belgrade	Serbia	100
IBM CAPITAL SINGAPORE PTE. LTD.	Singapore	100
IBM Singapore Pte. Ltd.	Singapore	100
RED HAT ASIA PACIFIC PTE. LTD.	Singapore	100
IBM Slovensko spol s.r.o.	Slovak Republic	100
IBM Slovenija d.o.o.	Slovenia	100
IBM Global Financing South Africa (Pty) Ltd	South Africa	100
IBM South Africa (Pty) Ltd.	South Africa	100
IBM Global Financing España, S.L.U.	Spain	100
IBM Global Services España, S.A.	Spain	100
International Business Machines, S.A.	Spain	100

Company Name	State or country of incorporation or organization	Voting percent owned directly or indirectly by registrant
IBM Global Financing Sweden AB	Sweden	100
IBM Svenska Aktiebolag	Sweden	100
IBM Global Financing Schweiz GmbH	Switzerland	100
IBM Schweiz AG—IBM Suisse SA—IBM Svizzera SA—IBM Switzerland Ltd	Switzerland	100
IBM Taiwan Corporation	Taiwan	100
IBM Tanzania Limited	Tanzania	100
IBM Capital (Thailand) Company Limited	Thailand	100
IBM Thailand Company Limited	Thailand	100
IBM Tunisie	Tunisia	100
IBM (International Business Machines) Turk Limited Sirketi	Türkiye	100
IBM Ukraine	Ukraine	100
IBM Middle East FZ—LLC	United Arab Emirates	100
IBM United Kingdom Limited	United Kingdom	100
IBM United Kingdom Asset Leasing Limited	United Kingdom	100
IBM United Kingdom Financial Services Limited	United Kingdom	100
IBM del Uruguay, S.A.	Uruguay	100
IBM Credit LLC	USA (Delaware)	100
IBM International Group Capital LLC	USA (Delaware)	100
IBM International Foundation	USA (Delaware)	100
IBM World Trade Corporation	USA (Delaware)	100
Red Hat, Inc.	USA (Delaware)	100
Softlayer Technologies, Inc.	USA (Delaware)	100
IBM de Venezuela, S.C.A.	Venezuela	100
IBM Vietnam Company Limited	Vietnam	100

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 002-77235, 033-29022, 033-33458, 033-34406, 033-53777, 033-60225, 033-60227, 033-60237, 033-60815, 333-01411, 033-52931, 033-33590, 333-76914, 333-87708, 333-09055, 333-23315, 333-31305, 333-41813, 333-44981, 333-48435, 333-81157, 333-87751, 333-87859, 333-87925, 333-30424, 333-33692, 333-36510, 333-102872, 333-102870, 333-103471, 333-104806, 333-114190, 333-131934, 333-138326, 333-138327, 333-148964, 333-170559, 333-171968, 333-196722, 333-232585(1), 333-232585(2) and 333-259965) and Form S-3 (Nos. 033-49475(1), 033-31732, 333-03763, 333-27669, 333-32690, 333-101034, 333-262911) of International Business Machines Corporation of our report dated February 28, 2023 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in the 2022 Annual Report to Stockholders, which is incorporated by reference in this Annual Report on Form 10-K. We also consent to the incorporation by reference of our report dated February 28, 2023 relating to the financial statement schedule which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
New York, New York
February 28, 2023

Exhibit 24.1

POWER OF ATTORNEY OF ARVIND KRISHNA

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Chairman and Chief Executive Officer and, Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ ARVIND KRISHNA
Arvind Krishna
Chairman and Chief Executive Officer

POWER OF ATTORNEY OF JAMES J. KAVANAUGH

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Senior Vice President and Chief Financial Officer of International Business Machines Corporation, a New York corporation, which will file with U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, and Frank P. Sedlarcik, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ JAMES J. KAVANAUGH
James J. Kavanaugh
Senior Vice President and
Chief Financial Officer

POWER OF ATTORNEY OF NICOLAS FEHRING

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Vice President and Controller of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, James J. Kavanaugh, and Frank P. Sedlarcik, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ NICOLAS FEHRING
Nicolas Fehring
Vice President and Controller

POWER OF ATTORNEY OF IBM DIRECTOR

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, and, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ THOMAS BUBERL

Director

POWER OF ATTORNEY OF IBM DIRECTOR

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, and, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ DAVID N. FARR
Director

POWER OF ATTORNEY OF IBM DIRECTOR

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, and, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ ALEX GORSKY

Director

POWER OF ATTORNEY OF IBM DIRECTOR

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, and, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ MICHELLE J. HOWARD
Director

POWER OF ATTORNEY OF IBM DIRECTOR

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, and, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ ANDREW N. LIVERIS
Director

POWER OF ATTORNEY OF IBM DIRECTOR

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, and, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ F. WILLIAM MCNABB III

Director

POWER OF ATTORNEY OF IBM DIRECTOR

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, and, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ MARTHA E. POLLACK
Director

POWER OF ATTORNEY OF IBM DIRECTOR

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, and, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ JOSEPH R. SWEDISH
Director

POWER OF ATTORNEY OF IBM DIRECTOR

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, and, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 1ST day of February 2023.

/s/ PETER R. VOSER
Director

POWER OF ATTORNEY OF IBM DIRECTOR

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, and, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ FREDERICK H. WADDELL
Director

POWER OF ATTORNEY OF IBM DIRECTOR

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned Director of International Business Machines Corporation, a New York corporation, which will file with the U.S. Securities and Exchange Commission, Washington, D.C., under the provisions of the securities laws, an Annual Report for 2022 on Form 10-K, hereby constitutes and appoints Arvind Krishna, Simon J. Beaumont, Michelle H. Browdy, Nicolas Fehring, James J. Kavanaugh, and Frank P. Sedlarcik, and, as true and lawful attorneys-in-fact and agents for the undersigned, and each of them with full power to act without the others, for the undersigned and in the name, place and stead of the undersigned, in any and all capacities, to sign or cause to be signed electronically said Annual Report on Form 10-K and any and all amendments thereto, and any and all other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform any and all acts and things requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them may lawfully do or cause to be done by virtue hereof. This Power of Attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31ST day of January 2023.

/s/ ALFRED W. ZOLLAR
Director

Exhibit 24.2

RESOLUTION REGARDING

FILING OF THE COMPANY'S 2022 ANNUAL REPORT ON FORM 10-K

RESOLVED, that the Company's 2022 Annual Report on Form 10-K be, and hereby is, approved and that the Officers of the Company be, and they hereby are, authorized and empowered to execute by powers of attorney the Form 10-K and to make such additions, supplements and changes thereto as in their opinion may be necessary or desirable and to cause such material to be filed with the U.S. Securities and Exchange Commission and other appropriate regulatory agencies.

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13A-14(a)/15D-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Arvind Krishna, certify that:

1. I have reviewed this annual report on Form 10-K of International Business Machines Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

    a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2023

/s/ ARVIND KRISHNA

Arvind Krishna

Chairman and Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13A-14(a)/15D-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, James J. Kavanaugh, certify that:

1. I have reviewed this annual report on Form 10-K of International Business Machines Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

   a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2023

/s/ JAMES J. KAVANAUGH

James J. Kavanaugh

Senior Vice President and Chief Financial Officer

Exhibit 32.1

INTERNATIONAL BUSINESS MACHINES CORPORATION
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of International Business Machines Corporation (the "Company") on Form 10-K for the period ending December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Arvind Krishna, Chairman and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ ARVIND KRISHNA
Arvind Krishna
Chairman and Chief Executive Officer
February 28, 2023

A signed original of this written statement required by Section 906 has been provided to IBM and will be retained by IBM and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

INTERNATIONAL BUSINESS MACHINES CORPORATION
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of International Business Machines Corporation (the "Company") on Form 10-K for the period ending December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James J. Kavanaugh, Senior Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ JAMES J. KAVANAUGH
James J. Kavanaugh
Senior Vice President and Chief Financial Officer
February 28, 2023

A signed original of this written statement required by Section 906 has been provided to IBM and will be retained by IBM and furnished to the Securities and Exchange Commission or its staff upon request.

Document and Entity Information - USD ($) $ in Billions	12 Months Ended Dec. 31, 2022	Feb. 10, 2023	Jun. 30, 2022
Document Information [Line Items]			
Document Type	10-K		
Document Annual Report	true		
Document Transition Report	false		
Document Period End Date	Dec. 31, 2022		
Entity File Number	1-2360		
Entity Registrant Name	INTERNATIONAL BUSINESS MACHINES CORPORATION		
Entity Incorporation, State or Country Code	NY		
Entity Tax Identification Number	13-0871985		
Entity Address, Address Line One	One New Orchard Road		
Entity Address, City or Town	Armonk		
Entity Address, State or Province	NY		
Entity Address, Postal Zip Code	10504		
City Area Code	914		
Local Phone Number	499-1900		
Entity Well-known Seasoned Issuer	Yes		
Entity Voluntary Filers	No		
Entity Current Reporting Status	Yes		
Entity Interactive Data Current	Yes		
Entity Filer Category	Large Accelerated Filer		
Entity Central Index Key	0000051143		
Amendment Flag	false		
Current Fiscal Year End Date	--12-31		
Entity Small Business	false		
Entity Emerging Growth Company	false		
ICFR Auditor Attestation Flag	true		
Entity Shell Company	false		
Entity Common Stock, Shares Outstanding		907,105,611	
Entity Public Float			$ 127.5
Document Fiscal Year Focus	2022		
Document Fiscal Period Focus	FY		
Auditor Name	PricewaterhouseCoopers LLP		
Auditor Firm ID	238		
Auditor Location	New York, New York		
New York Stock Exchange | Common Stock			
Document Information [Line Items]			
Title of 12(b) Security	Capital stock, par value $.20 per share		

Trading Symbol	IBM
Security Exchange Name	NYSE
New York Stock Exchange | 1.250% Notes due 2023	
Document Information [Line Items]	
Title of 12(b) Security	1.250% Notes due 2023
Trading Symbol	IBM 23A
Security Exchange Name	NYSE
New York Stock Exchange | 1.125% Notes due 2024	
Document Information [Line Items]	
Title of 12(b) Security	1.125% Notes due 2024
Trading Symbol	IBM 24A
Security Exchange Name	NYSE
New York Stock Exchange | 2.875% Notes due 2025	
Document Information [Line Items]	
Title of 12(b) Security	2.875% Notes due 2025
Trading Symbol	IBM 25A
Security Exchange Name	NYSE
New York Stock Exchange | 0.950% Notes due 2025	
Document Information [Line Items]	
Title of 12(b) Security	0.950% Notes due 2025
Trading Symbol	IBM 25B
Security Exchange Name	NYSE
New York Stock Exchange | 0.875% Notes due 2025	
Document Information [Line Items]	
Title of 12(b) Security	0.875% Notes due 2025
Trading Symbol	IBM 25C
Security Exchange Name	NYSE
New York Stock Exchange | 0.300% Notes due 2026	
Document Information [Line Items]	
Title of 12(b) Security	0.300% Notes due 2026
Trading Symbol	IBM 26B
Security Exchange Name	NYSE
New York Stock Exchange | 1.250% Notes due 2027	
Document Information [Line Items]	
Title of 12(b) Security	1.250% Notes due 2027
Trading Symbol	IBM 27B
Security Exchange Name	NYSE

New York Stock Exchange | 3.375% Notes due 2027	
Document Information [Line Items]	
Title of 12(b) Security	3.375% Notes due 2027
Trading Symbol	IBM 27F
Security Exchange Name	NYSE
New York Stock Exchange | 0.300% Notes due 2028	
Document Information [Line Items]	
Title of 12(b) Security	0.300% Notes due 2028
Trading Symbol	IBM 28B
Security Exchange Name	NYSE
New York Stock Exchange | 1.750% Notes due 2028	
Document Information [Line Items]	
Title of 12(b) Security	1.750% Notes due 2028
Trading Symbol	IBM 28A
Security Exchange Name	NYSE
New York Stock Exchange | 1.500% Notes due 2029	
Document Information [Line Items]	
Title of 12(b) Security	1.500% Notes due 2029
Trading Symbol	IBM 29
Security Exchange Name	NYSE
New York Stock Exchange | 0.875% Notes due 2030	
Document Information [Line Items]	
Title of 12(b) Security	0.875% Notes due 2030
Trading Symbol	IBM 30A
Security Exchange Name	NYSE
New York Stock Exchange | 1.750% Notes due 2031	
Document Information [Line Items]	
Title of 12(b) Security	1.750% Notes due 2031
Trading Symbol	IBM 31
Security Exchange Name	NYSE
New York Stock Exchange | 3.625% Notes due 2031	
Document Information [Line Items]	
Title of 12(b) Security	3.625% Notes due 2031
Trading Symbol	IBM 31B
Security Exchange Name	NYSE
New York Stock Exchange | 0.650% Notes due 2032	
Document Information [Line Items]	

Title of 12(b) Security	0.650% Notes due 2032
Trading Symbol	IBM 32A
Security Exchange Name	NYSE
New York Stock Exchange	1.250% Notes due 2034	
Document Information [Line Items]	
Title of 12(b) Security	1.250% Notes due 2034
Trading Symbol	IBM 34
Security Exchange Name	NYSE
New York Stock Exchange	3.750% Notes due 2035	
Document Information [Line Items]	
Title of 12(b) Security	3.750% Notes due 2035
Trading Symbol	IBM 35
Security Exchange Name	NYSE
New York Stock Exchange	4.875% Notes due 2038	
Document Information [Line Items]	
Title of 12(b) Security	4.875% Notes due 2038
Trading Symbol	IBM 38
Security Exchange Name	NYSE
New York Stock Exchange	1.200% Notes due 2040	
Document Information [Line Items]	
Title of 12(b) Security	1.200% Notes due 2040
Trading Symbol	IBM 40
Security Exchange Name	NYSE
New York Stock Exchange	4.000% Notes due 2043	
Document Information [Line Items]	
Title of 12(b) Security	4.000% Notes due 2043
Trading Symbol	IBM 43
Security Exchange Name	NYSE
New York Stock Exchange	7.00% Debentures due 2025	
Document Information [Line Items]	
Title of 12(b) Security	7.00% Debentures due 2025
Trading Symbol	IBM 25
Security Exchange Name	NYSE
New York Stock Exchange	6.22% Debentures due 2027	
Document Information [Line Items]	
Title of 12(b) Security	6.22% Debentures due 2027
Trading Symbol	IBM 27
Security Exchange Name	NYSE

New York Stock Exchange | 6.50% Debentures due 2028	
Document Information [Line Items]	
Title of 12(b) Security	6.50% Debentures due 2028
Trading Symbol	IBM 28
Security Exchange Name	NYSE
New York Stock Exchange | 5.875% Debentures due 2032	
Document Information [Line Items]	
Title of 12(b) Security	5.875% Debentures due 2032
Trading Symbol	IBM 32D
Security Exchange Name	NYSE
New York Stock Exchange | 7.00% Debentures due 2045	
Document Information [Line Items]	
Title of 12(b) Security	7.00% Debentures due 2045
Trading Symbol	IBM 45
Security Exchange Name	NYSE
New York Stock Exchange | 7.125% Debentures due 2096	
Document Information [Line Items]	
Title of 12(b) Security	7.125% Debentures due 2096
Trading Symbol	IBM 96
Security Exchange Name	NYSE
Chicago Stock Exchange | Common Stock	
Document Information [Line Items]	
Title of 12(b) Security	Capital stock, par value $.20 per share
Trading Symbol	IBM
Security Exchange Name	CHX

CONSOLIDATED INCOME STATEMENT - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Revenue (Note D)	$ 60,530	$ 57,350	$ 55,179
Cost	27,842	25,865	24,314
Gross profit	32,687	31,486	30,865
Expense and other (income)			
Selling, general and administrative	18,609	18,745	20,561
Research, development and engineering (Note G)	6,567	6,488	6,262
Intellectual property and custom development income	(663)	(612)	(620)
Other (income) and expense (Note A)	5,803	873	802
Interest expense (Note P&T)	1,216	1,155	1,288
Total expense and other (income)	31,531	26,649	28,293
Income from continuing operations before income taxes	1,156	4,837	2,572
Provision for/(benefit from) income taxes (Note H)	(626)	124	(1,360)
Income from continuing operations	1,783	4,712	3,932
Income/(loss) from discontinued operations, net of tax (Note C)	(143)	1,030	1,658
Net income	$ 1,639	$ 5,743	$ 5,590
Assuming dilution			
Continuing operations (in dollars per share) (Note I)	$ 1.95	$ 5.21	$ 4.38
Discontinued operations (in dollars per share) (Note I)	(0.16)	1.14	1.85
Total (in dollars per share) (Note I)	1.80	6.35	6.23
Basic			
Continuing operations (in dollars per share) (Note I)	1.97	5.26	4.42
Discontinued operations (in dollars per share) (Note I)	(0.16)	1.15	1.86
Total (in dollars per share) (Note I)	$ 1.82	$ 6.41	$ 6.28
Weighted-average number of common shares outstanding			
Assuming dilution (in shares)	912,269,062	904,641,001	896,563,971
Basic (in shares)	902,664,190	895,990,771	890,348,679
Services			
Revenue (Note D)	$ 30,206	$ 29,225	$ 27,626
Cost	21,062	19,147	17,689
Sales			
Revenue (Note D)	29,673	27,346	26,569
Cost	6,374	6,184	6,048
Financing.			
Revenue (Note D)	651	780	984
Cost	$ 406	$ 534	$ 577

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME			
Net income	$ 1,639	$ 5,743	$ 5,590
Other comprehensive income/(loss), before tax			
Foreign currency translation adjustments (Note S)	176	987	(1,500)
Net changes related to available-for-sale securities (Note S)			
Unrealized gains/(losses) arising during the period	(1)	0	(1)
Total net changes related to available-for-sale securities	(1)	0	(1)
Unrealized gains/(losses) on cash flow hedges (Note S)			
Unrealized gains/(losses) arising during the period	241	344	(349)
Reclassification of (gains)/losses to net income	(400)	243	(21)
Total unrealized gains/(losses) on cash flow hedges	(158)	587	(370)
Retirement-related benefit plans (Note S)			
Prior service costs/(credits)	463	(51)	(37)
Net (losses)/gains arising during the period	878	2,433	(1,678)
Curtailments and settlements	5,970	94	52
Amortization of prior service (credits)/costs	12	9	13
Amortization of net (gains)/losses	1,596	2,484	2,314
Total retirement-related benefit plans	8,919	4,969	664
Other comprehensive income/(loss), before tax (Note S)	8,936	6,542	(1,206)
Income tax (expense)/benefit related to items of other comprehensive income (Note S)	(2,442)	(1,703)	466
Other comprehensive income/(loss) (Note S)	6,494	4,839	(740)
Total comprehensive income	$ 8,134	$ 10,582	$ 4,850

CONSOLIDATED BALANCE SHEET - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Current assets		
Cash and cash equivalents	$ 7,886	$ 6,650
Restricted cash	103	307
Marketable securities (Note J)	852	600
Notes and accounts receivable-trade (net of allowances of $233 in 2022 and $218 in 2021)	6,541	6,754
Short-term financing receivables, held for investment (net of allowances of $145 in 2022 and $176 in 2021) (Note L)	6,851	7,221
Short-term financing receivables, held for sale (Note L)	939	793
Other accounts receivable (net of allowances of $89 in 2022 and $24 in 2021)	817	1,002
Inventory (Note K)	1,552	1,649
Deferred costs (Note D)	967	1,097
Prepaid expenses and other current assets	2,611	3,466
Total current assets	29,118	29,539
Property, plant and equipment (Note M)	18,695	20,085
Less: Accumulated depreciation (Note M)	13,361	14,390
Property, plant and equipment - net (Note M)	5,334	5,694
Operating right-of-use assets-net (Note N)	2,878	3,222
Long-term financing receivables (net of allowances of $28 in 2022 and $25 in 2021)	5,806	5,425
Prepaid pension assets (Note V)	8,236	9,850
Deferred costs (Note D)	866	924
Deferred taxes (Note H)	6,256	7,370
Goodwill (Note O)	55,949	55,643
Intangible assets-net (Note O)	11,184	12,511
Investments and sundry assets	1,617	1,823
Total assets	127,243	132,001
Current liabilities		
Taxes (Note H)	2,196	2,289
Short-term debt (Note J&P)	4,760	6,787
Accounts payable	4,051	3,955
Compensation and benefits	3,481	3,204
Deferred income	12,032	12,518
Operating lease liabilities (Note N)	874	974
Other accrued expenses and liabilities	4,111	3,892
Total current liabilities	31,505	33,619
Long-term debt (Note J&P)	46,189	44,917
Retirement and nonpension postretirement benefit obligations (Note V)	9,596	14,435
Deferred income	3,499	3,577
Operating lease liabilities (Note N)	2,190	2,462
Other liabilities (Note Q)	12,243	13,996
Total liabilities	105,222	113,005

Commitments and Contingencies (Note R)		
IBM stockholders' equity		
Common stock, par value $.20 per share, and additional paid-in capital Shares authorized: 4,687,500,000 Shares issued (2022-2,257,116,920; 2021-2,248,577,848)	58,343	57,319
Retained earnings	149,825	154,209
Treasury stock, at cost (shares: 2022-1,351,024,943; 2021-1,350,509,249)	(169,484)	(169,392)
Accumulated other comprehensive income/(loss)	(16,740)	(23,234)
Total IBM stockholders' equity	21,944	18,901
Noncontrolling interests (Note A)	77	95
Total equity	22,021	18,996
Total liabilities and equity	$ 127,243	$ 132,001

CONSOLIDATED BALANCE SHEET (Parenthetical) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
CONSOLIDATED BALANCE SHEET		
Notes and accounts receivable - trade, allowances	$ 233	$ 218
Short-term financing receivables - held for investment, allowances	145	176
Other accounts receivable, allowances	89	24
Long-term financing receivables, allowances	$ 28	$ 25
Common stock, Par value (in dollars per share)	$ 0.20	$ 0.20
Common stock, Shares authorized (in shares)	4,687,500,000	4,687,500,000
Common stock, Shares issued (in shares)	2,257,116,920	2,248,577,848
Treasury stock, Shares (in shares)	1,351,024,943	1,350,509,249

CONSOLIDATED STATEMENT OF CASH FLOWS - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Cash flows from operating activities			
Net income	$ 1,639	$ 5,743	$ 5,590
Adjustments to reconcile net income to cash provided by operating activities			
Pension settlement charge	5,894		
Depreciation	2,407	3,888	4,227
Amortization of intangibles	2,395	2,529	2,468
Stock-based compensation	987	982	937
Deferred taxes	(2,726)	(2,001)	(3,203)
Net (gain)/loss on asset sales and other	(122)	(307)	(70)
Change in operating assets and liabilities, net of acquisitions/ divestitures			
Receivables (including financing receivables)	(539)	1,372	5,297
Retirement related	331	1,038	936
Inventory	71	138	(209)
Other assets/other liabilities	(115)	(671)	2,087
Accounts payable	213	85	138
Net cash provided by operating activities	10,435	12,796	18,197
Cash flows from investing activities			
Payments for property, plant and equipment	(1,346)	(2,062)	(2,618)
Proceeds from disposition of property, plant and equipment	111	387	188
Investment in software	(626)	(706)	(612)
Purchases of marketable securities and other investments	(5,930)	(3,561)	(6,246)
Proceeds from disposition of marketable securities and other investments	4,665	3,147	5,618
Non-operating finance receivables - net	0	0	475
Acquisition of businesses, net of cash acquired	(2,348)	(3,293)	(336)
Divestiture of businesses, net of cash transferred	1,272	114	503
Net cash provided by/(used in) investing activities	(4,202)	(5,975)	(3,028)
Cash flows from financing activities			
Proceeds from new debt	7,804	522	10,504
Payments to settle debt	(6,800)	(8,597)	(13,365)
Short-term borrowings/(repayments) less than 90 days - net	217	(40)	(853)
Common stock repurchases for tax withholdings	(407)	(319)	(302)
Financing - other	176	70	92
Distribution from Kyndryl		879	
Cash dividends paid	(5,948)	(5,869)	(5,797)
Net cash provided by/(used in) financing activities	(4,958)	(13,354)	(9,721)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(244)	(185)	(87)
Net change in cash, cash equivalents and restricted cash	1,032	(6,718)	5,361

Cash, cash equivalents and restricted cash at January 1	6,957	13,675	8,314
Cash, cash equivalents and restricted cash at December 31	7,988	6,957	13,675
Supplemental data			
Income taxes paid-net of refunds received	1,865	2,103	2,253
Interest paid on debt	$ 1,401	$ 1,512	$ 1,830

CONSOLIDATED STATEMENT OF CASH FLOWS (Parenthetical) $ in Millions	12 Months Ended Dec. 31, 2021 USD ($)
Distribution from Kyndryl	$ 879
Kyndryl Holdings, Inc	
Aggregate amount of debt issued	$ 2,900

CONSOLIDATED STATEMENT OF EQUITY - USD ($) $ in Millions	Total IBM Stockholders' Equity Cumulative Effect, Period of Adoption, Adjustment	Total IBM Stockholders' Equity	Common Stock and Additional Paid-in Capital	Retained Earnings Cumulative Effect, Period of Adoption, Adjustment	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Non-Controlling Interests	Cumulative Effect, Period of Adoption, Adjustment	Total
Balance at the Beginning of the Period at Dec. 31, 2019	$ (66)	$ 20,841	$ 55,895	$ (66)	$ 162,954	$ (169,413)	$ (28,597)	$ 144	$ (66)	$ 20,985
Net income/(loss) plus other comprehensive income/ (loss):										
Net income		5,590			5,590					5,590
Other comprehensive income/ (loss)		(740)					(740)			(740)
Total comprehensive income/ (loss)		4,850								4,850
Cash dividends paid - common stock		(5,797)			(5,797)					(5,797)
Common stock issued under employee plans		661	661							661
Purchases and sales of treasury stock under employee plans - net		110			36	74				110
Changes in noncontrolling interests								(15)		(15)
Balance at the End of the Period at Dec. 31, 2020		20,597	56,556		162,717	(169,339)	(29,337)	129		20,727
Net income/(loss) plus other comprehensive income/ (loss):										
Net income		5,743			5,743					5,743
Other comprehensive income/ (loss)		4,839					4,839			4,839
Total comprehensive income/ (loss)		10,582								10,582
Cash dividends paid - common stock		(5,869)			(5,869)					(5,869)
Common stock issued under employee plans		762	762							762
Purchases and sales of treasury stock under employee plans - net		(31)			22	(53)				(31)
Separation of Kyndryl		(7,140)			(8,404)		1,264	(62)		(7,203)
Changes in noncontrolling interests								28		28
Balance at the End of the Period at Dec. 31, 2021		18,901	57,319		154,209	(169,392)	(23,234)	95		18,996
Net income/(loss) plus other comprehensive income/ (loss):										
Net income		1,639			1,639					1,639
Other comprehensive income/ (loss)		6,494					6,494			6,494
Total comprehensive income/ (loss)		8,134								8,134
Cash dividends paid - common stock		(5,948)			(5,948)					(5,948)
Common stock issued under employee plans		962	962							962

Purchases and sales of treasury stock under employee plans - net	(104)		(12)	(92)			(104)
Other equity	0	63	(63)				0
Changes in noncontrolling interests						(18)	(18)
Balance at the End of the Period at Dec. 31, 2022	$ 21,944	$ 58,343	$ 149,825	$ (169,484)	$ (16,740)	$ 77	$ 22,021

CONSOLIDATED STATEMENT OF EQUITY (Parenthetical) - $ / shares	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
CONSOLIDATED STATEMENT OF EQUITY			
Cash dividend per common share	$ 6.59	$ 6.55	$ 6.51
Common stock issued under employee plans (in shares)	8,539,072	5,608,845	4,972,028
Purchases of treasury stock under employee plans (in shares)	3,027,994	2,286,912	2,363,966
Sales of treasury stock under employee plans (in shares)	2,512,300	2,093,243	2,934,907

Significant Accounting Policies	12 Months Ended Dec. 31, 2022
Significant Accounting Policies	
Significant Accounting Policies	

NOTE A. SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying Consolidated Financial Statements and footnotes of the International Business Machines Corporation (IBM or the company) have been prepared in accordance with acco
in the United States of America (GAAP).

Within the financial statements and tables presented, certain columns and rows may not add due to the use of rounded numbers for disclosure purposes. Percentages presented are calcula
amounts. Certain prior-year amounts have been reclassified to conform to the current year presentation. This is annotated where applicable. In addition, in the first quarter of 2022, an adj
between common stock and retained earnings related to the issuance of treasury stock in connection with certain previously issued stock-based compensation awards and is reflected in th
Consolidated Statement of Equity at December 31, 2022.

On November 3, 2021, the company completed the separation of its managed infrastructure services unit into a new public company with the distribution of 80.1 percent of the outstanding
Inc. (Kyndryl) to IBM stockholders on a pro rata basis. To effect the separation, IBM stockholders received one share of Kyndryl common stock for every five shares of IBM common sto
October 25, 2021, the record date for the distribution. The company retained 19.9 percent of the shares of Kyndryl common stock immediately following the separation. During 2022, the co
interest in Kyndryl common stock pursuant to exchange agreements with a third-party financial institution, which were completed within twelve months of separation. Refer to note J, "Financi
information. At December 31, 2022, the company no longer held an ownership interest in Kyndryl.

The accounting requirements for reporting the separation of Kyndryl as a discontinued operation were met when the separation was completed. Accordingly, the historical results of Kyn
operations and, as such, have been excluded from continuing operations and segment results for all periods presented. Refer to note C, "Separation of Kyndryl," for additional information.

In the first quarter of 2022, the company realigned its management structure to reflect the planned divestiture of its healthcare software assets which was completed in the second quarter
company's Software segment and Other–divested businesses category, but did not impact the company's Consolidated Financial Statements. Refer to note E, "Segments," for additional infor
segments. The segments presented in this Annual Report are reported on a comparable basis for all periods.

In September 2022, the IBM Qualified Personal Pension Plan (Qualified PPP) purchased two separate nonparticipating single premium group annuity contracts from The Prudential In
Metropolitan Life Insurance Company (collectively, the Insurers) and irrevocably transferred to the Insurers approximately $16 billion of the Qualified PPP's defined benefit pension obligatio
reducing the company's pension obligations and assets by the same amount. The group annuity contracts were purchased using assets of the Qualified PPP and no additional funding
company. As a result of this transaction the company recognized a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022,
recognition of accumulated actuarial losses of the Qualified PPP. Refer to note V, "Retirement-Related Benefits," for additional information.

The company reported a benefit from income taxes of $626 million for the year ended December 31, 2022. This tax benefit was primarily due to the transfer of a portion of the Qualified PPP's
and related plan assets, as described above. The benefit from income taxes for the year ended December 31, 2020 was primarily due to the tax impacts of an intra-entity sale of certain of
Refer to note H, "Taxes," for additional information.

Noncontrolling interest amounts of $20 million, $19 million and $13 million, net of tax, for the years ended December 31, 2022, 2021 and 2020, respectively, are included as a reduction withi
Consolidated Income Statement.

Principles of Consolidation

The Consolidated Financial Statements include the accounts of IBM and its controlled subsidiaries, which are primarily majority owned. Any noncontrolling interest in the equity of a subsid
total equity in the Consolidated Balance Sheet. Net income and losses attributable to the noncontrolling interest is reported as described above in the Consolidated Income Statement. The a
(VIEs) are included in the Consolidated Financial Statements, if required. Investments in business entities in which the company does not have control but has the ability to exercise sign
financial policies, are accounted for using the equity method and the company's proportionate share of income or loss is recorded in other (income) and expense. The accounting policy for o
is described within the "Marketable Securities" section of this note. Equity investments in non-publicly traded entities lacking controlling financial interest or significant influence are prima
indicators of fair value, net of impairment, if any. All intercompany transactions and accounts have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect amounts that are reported in the Consolidated Finan
disclosures. Estimates are made for the following, among others: revenue, costs to complete service contracts, income taxes, pension assumptions, valuation of assets including g
contingencies, allowance for credit losses and other matters. These estimates are based on management's best knowledge of current events, historical experience, actions that the compa
on various other assumptions that are believed to be reasonable under the circumstances. Actual results may be different from these estimates.

In the fourth quarter of 2022, the company completed its annual assessment of the useful lives of its information technology equipment. Due to advances in technology, the company determi
useful lives of its server and network equipment from five to six years for new assets and from three to four years for used assets. This change in accounting estimate will be effective beginn
a prospective basis to these assets on the company's balance sheet as of December 31, 2022, as well as future asset purchases. Based on the carrying amount of server and network equip
equipment-net in the company's Consolidated Balance Sheet as of December 31, 2022, the company estimates this change will increase income from continuing operations before income t

Revenue

The company accounts for a contract with a client when it has written approval, the contract is committed, the rights of the parties, including payment terms, are identified, the contra
consideration is probable of collection.

Revenue is recognized when, or as, control of a promised product or service transfers to a client, in an amount that reflects the consideration to which the company expects to be entitled
products or services. If the consideration promised in a contract includes a variable amount, the company estimates the amount to which it expects to be entitled using either the expected v
The company's contracts may include terms that could cause variability in the transaction price, including, for example, rebates, volume discounts, service-level penalties, and performance b
revenue.

The company only includes estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the unce
consideration is resolved. The company may not be able to reliably estimate contingent revenue in certain long-term arrangements due to uncertainties that are not expected to be resolve
the company's experience with similar types of contracts is limited. The company's arrangements infrequently include contingent revenue. Changes in estimates of variable consideratio
Recognition."

The company's standard billing terms are that payment is due upon receipt of invoice, payable within 30 days. Invoices are generally issued as control transfers and/or as services are rende
transaction price, the company adjusts the promised amount of consideration for the effects of the time value of money if the billing terms are not standard and the timing of payments agr
provide the client or the company with a significant benefit of financing, in which case the contract contains a significant financing component. As a practical expedient, the company does
components if the period between when the company transfers the promised product or service to the client and when the client pays for that product or service will be one year or less
financing component are financed through the company's Financing business and include explicit financing terms.

The company may include subcontractor services or third-party vendor equipment or software in certain integrated services arrangements. In these types of arrangements, revenue from sa
services is recorded net of costs when the company is acting as an agent between the client and the vendor, and gross when the company is the principal for the transaction. To determine w
principal, the company considers whether it obtains control of the products or services before they are transferred to the customer. In making this evaluation, several factors are considered,
has primary responsibility for fulfillment to the client, as well as inventory risk and pricing discretion.

The company recognizes revenue on sales to solution providers, resellers and distributors (herein referred to as resellers) when the reseller has economic substance apart from the compar
principal for the transaction with the end-user client.

The company reports revenue net of any revenue-based taxes assessed by governmental authorities that are imposed on and concurrent with specific revenue-producing transactions.

In addition to the aforementioned general policies, the following are the specific revenue recognition policies for arrangements with multiple performance obligations and for each major categ

Arrangements with Multiple Performance Obligations

The company's global capabilities as a hybrid cloud platform and AI company include services, software, hardware and related financing. The company enters into revenue arrangements t
of these products and services based on the needs of its clients.

The company continues to develop new products and offerings and their associated consumption and delivery methods, including the use of cloud and as-a-Service models. These are not sep
across the segments that address market opportunities in areas such as analytics, data, cloud, security and sustainability. Revenue from these offerings follows the specific revenue recogr
multiple performance obligations and for each major category of revenue, depending on the type of offering, which are comprised of services, software and/or hardware.

To the extent that a product or service in multiple performance obligation arrangements is subject to other specific accounting guidance, such as leasing guidance, that product or service
such specific guidance. For all other products or services in these arrangements, the company determines if the products or services are distinct and allocates the consideration to each c
relative standalone selling price basis.

When products and services are not distinct, the company determines an appropriate measure of progress based on the nature of its overall promise for the single performance obligation.

The revenue policies in the Services, Hardware and/or Software sections below are applied to each performance obligation, as applicable.

Services

The company's primary services offerings include consulting services, including business transformation; technology consulting and application operations including the design and develo
to a client's specifications (e.g., design and build); cloud services; business process outsourcing; and infrastructure support. Many of these services can be delivered entirely or partially thr
models. The company's services are provided on a time-and-material basis, as a fixed-price contract or as a fixed-price per measure of output contract and the contract terms generally range

In services arrangements, the company typically satisfies the performance obligation and recognizes revenue over time. In design and build arrangements, the performance obligation is sa
client controls the asset as it is created (e.g., when the asset is built at the customer site) or because the company's performance does not create an asset with an alternative use and the
to payment plus a reasonable profit for performance completed to date. In most other services arrangements, the performance obligation is satisfied over time because the client simultar
benefits provided as the company performs the services.

Revenue from time-and-material contracts is recognized on an output basis as labor hours are delivered and/or direct expenses are incurred. Revenue from as-a-Service type contracts, su
recognized either on a straight-line basis or on a usage basis, depending on the terms of the arrangement (such as whether the company is standing ready to perform or whether the contr
as-a-Service contract includes setup activities, those promises in the arrangement are evaluated to determine if they are distinct.

In areas such as application management, business process outsourcing and other cloud-based services arrangements, the company determines whether the services performed during th
such as setup activities, are distinct. In most cases, the arrangement is a single performance obligation comprised of a series of distinct services that are substantially the same and that hav
distinct days of service). The company applies a measure of progress (typically time-based) to any fixed consideration and allocates variable consideration to the distinct periods of service ba
is generally recognized over the period the services are provided on a usage basis. This results in revenue recognition that corresponds with the value to the client of the services transfer
services promised.

Revenue related to maintenance and technology lifecycle support and extended warranty is recognized on a straight-line basis over the period of performance because the company is stanc

In design and build contracts, revenue is recognized based on progress toward completion of the performance obligation using a cost-to-cost measure of progress. Revenue is recognizec
to date as a percentage of the total estimated labor costs to fulfill the contract. Due to the nature of the work performed in these arrangements, the estimation of cost at completion is com
requires significant judgment. Key factors reviewed by the company to estimate costs to complete each contract are future labor and product costs and expected productivity efficiencies
reflected in revenue on a cumulative catch-up basis in the period in which the circumstances that gave rise to the revision become
known by the company. Refer to note D, "Revenue Recognition," for the amount of revenue recognized in the reporting period on a cumulative catch-up basis (i.e., from performance obliga
in previous periods).

The company performs ongoing profitability analyses of its design and build services contracts accounted for using a cost-to-cost measure of progress in order to determine whether the late
profits require updating. If at any time these estimates indicate that the contract will be unprofitable, the entire estimated loss for the remainder of the contract is recorded immediately. For ot
losses are recorded as incurred.

In some services contracts, the company bills the client prior to recognizing revenue from performing the services. Deferred income of $3,241 million and $3,460 million at December 31, 2022
in the Consolidated Balance Sheet. In other services contracts, the company performs the services prior to billing the client. When the company performs services prior to billing the client in
to consideration is typically subject to milestone completion or client acceptance and the unbilled accounts receivable is classified as a contract asset. At December 31, 2022 and 2021, cont
$426 million and $430 million, respectively, are included in prepaid expenses and other current assets in the Consolidated Balance Sheet. The remaining amount of unbilled accounts receiva
at December 31, 2022 and 2021, respectively, is included in notes and accounts receivable–trade in the Consolidated Balance Sheet.

Billings usually occur in the month after the company performs the services or in accordance with specific contractual provisions.

Hardware

The company's hardware offerings include the sale or lease of Hybrid Infrastructure solutions including zSystems as well as Distributed Infrastructure solutions such as Power and storage
products can also be delivered through as-a-Service or cloud delivery models, such as Infrastructure-as-a-Service and Storage-as-a-Service. The company also offers installation servic
products. Hardware offerings are often sold with distinct maintenance services, described in the Services section above.

Revenue from hardware sales is recognized when control has transferred to the customer which typically occurs when the hardware has been shipped to the client, risk of loss has transferre
a present right to payment for the hardware. In limited circumstances when a hardware sale includes client acceptance provisions, revenue is recognized either when client acceptance ha
provisions have lapsed, or the company has objective evidence that the criteria specified in the client acceptance provisions have been satisfied. Revenue from hardware sales-type leases i
lease term. Revenue from rentals and operating leases is recognized on a straight-line basis over the term of the rental or lease.

Revenue from as-a-Service arrangements is recognized either on a straight-line basis or on a usage basis as described in the Services section above. Installation services are accounted for
with revenue recognized as the services are performed. Shipping and handling activities that occur after the client has obtained control of a product are accounted for as an activity to fulfill
rather than as an additional promised service and, therefore, no revenue is deferred and recognized over the shipping period.

Software

The company's software offerings include hybrid platform software solutions, which contain many of the company's strategic areas including Red Hat, automation, data and AI, security and su
which primarily supports mission-critical systems for clients; and distributed infrastructure software, which provides operating systems for zSystems and Power Systems hardware. These of
and open-source software, and many can be delivered entirely or partially through as-a-Service or cloud delivery models, while others are delivered as on-premise software licenses.

Revenue from proprietary perpetual (one-time charge) license software is recognized at a point in time at the inception of the arrangement when control transfers to the client, if the softwa
contract support (PCS) offered by the company.

Revenue from proprietary term license software is recognized at a point in time for the committed term of the contract, unless consideration depends on client usage, in which case reve
occurs.

Proprietary term licenses often have a one-month contract term due to client termination rights, in which case, revenue would be recognized in that month for both the license and PCS. C
existing IBM term license software into perpetual license software plus PCS. When proprietary term license software is converted to perpetual license software, the consideration becon
therefore, revenue for the perpetual license is recognized upon conversion, consistent with the accounting for other perpetual licenses, as described above. PCS revenue is recognized as d

The company also has open-source software offerings. Since open-source software is offered under an open-source licensing model and therefore, the license is available for free, the stanc
when the license is sold with PCS or other products and services, no consideration is allocated to the license when it is a distinct performance obligation and therefore no revenue is rec
transfers to the client. Revenue is recognized over the PCS period. In certain cases, open-source software is bundled with proprietary software and, if the open-source software is not cons
(e.g., Cloud Pak) is accounted for under a proprietary software model. Cloud Paks can be sold either as perpetual or committed-term software licenses, both of which are described above.

Revenue from PCS is recognized over the contract term on a straight-line basis because the company is providing a service of standing ready to provide support, when-and-if needed, ar
upgrades on a when-and-if available basis over the contract term.

Revenue from software hosting or Software-as-a-Service (SaaS) arrangements is recognized either on a straight-line basis or on a usage basis as described in the Services section above
the rights provided to the client (e.g., ownership of a license, contract termination provisions and the feasibility of the client to operate the software) are considered in determining whether the
arrangements that include a software license, the associated revenue is recognized in accordance with the software license recognition policy above rather than over time as a service.

Financing

Financing income attributable to sales-type leases, direct financing leases and loans is recognized on the accrual basis using the effective interest method. Operating lease income is reco
the term of the lease.

Standalone Selling Price

The company allocates the transaction price to each performance obligation on a relative standalone selling price basis. The standalone selling price (SSP) is the price at which the compar
service separately to a client. In most cases, the company is able to establish SSP based on the observable prices of products or services sold separately in comparable circumstances to si
establishes SSP ranges for its products and services which are reassessed on a periodic basis or when facts and circumstances change.

In certain instances, the company may not be able to establish a SSP range based on observable prices, and as a result, the company estimates SSP. The company estimates SSP by co
but not limited to, overall market conditions, including geographic or regional specific factors, internal costs, profit objectives and pricing practices. Additionally, in certain circumstances, the
product or service by applying the residual approach. Estimating SSP is a formal process that includes review and approval by the company's management.

Services Costs

Recurring operating costs for services contracts are recognized as incurred. For fixed-price design and build contracts, the costs of external hardware and software accounted for under th
are deferred and recognized based on the labor costs incurred to date (i.e., the measure of progress), as a percentage of the total estimated labor costs to fulfill the contract as co
performance obligations. Certain eligible, nonrecurring costs (i.e., setup costs) incurred in the initial phases of business process outsourcing contracts and other cloud-based services contra
arrangements, are capitalized when the costs relate directly to the contract, the costs generate or enhance resources of the company that will be used in satisfying the performance obliga
expected to be recovered. These costs consist of transition and setup costs related to the provisioning, configuring, implementation and training and other deferred fulfillment costs, includin
in services contracts (i.e., prepaid software or prepaid maintenance). Capitalized costs are amortized on a straight-line basis over the expected period of benefit, which includes anticipate
consistent with the transfer to the client of the services to which the asset relates. Additionally, fixed assets associated with these contracts are capitalized and depreciated on a straight-line
of the asset. If an asset is contract specific, then the depreciation period is the shorter of the useful life of the asset or the contract term. Amounts paid to clients in excess of the fair value c
process outsourcing arrangements are deferred and amortized on a straight-line basis as a reduction of revenue over the expected period of benefit. The company performs periodic rev
deferred contract transition and setup costs. If the carrying amount is deemed not recoverable, an impairment loss is recognized. Refer to note D, "Revenue Recognition," for the amount of
December 31, 2022 and 2021.

In situations in which a business process outsourcing or other cloud-based services contract is terminated, the terms of the contract may require the client to reimburse the company fo
receivable, unamortized deferred contract costs and additional costs incurred by the company to transition the services.

Software Costs

Costs that are related to the conceptual formulation and design of licensed software programs are expensed as incurred to research, development and engineering expense; costs that a
product after technological feasibility has been established are capitalized as an intangible asset. Capitalized amounts are amortized on a straight-line basis over periods ranging up to three
cost within cost of sales. The company performs periodic reviews to ensure that unamortized program costs remain recoverable from future revenue. Costs to support or service licensed pro
within cost of sales as incurred.

The company capitalizes certain costs that are incurred to purchase or develop internal-use software. Internal-use software programs also include software used by the company to deliv
client does not receive a license to the software and the company has no substantive plans to market the software externally. Capitalized costs are amortized on a straight-line basis over pe
are recorded in selling, general and administrative expense or cost of sales, depending on whether the software is used by the company in revenue generating transactions. Additionally,
types of implementation costs and amortize them over the term of the arrangement when the company is a customer in a cloud-computing arrangement.

Incremental Costs of Obtaining a Contract

Incremental costs of obtaining a contract (e.g., sales commissions) are capitalized and amortized on a straight-line basis over the expected customer relationship period if the company e
expected customer relationship period, determined based on the average customer relationship period, including expected renewals, for each offering type, is three years. Expected renev
expected customer relationship period if commission amounts paid upon renewal are not commensurate with amounts paid on the initial contract. Incremental costs of obtaining a contract in
incurs to obtain a contract that it would not have incurred if the contract had not been obtained. The company has determined that certain commissions programs meet the requirements t
programs are not subject to capitalization as the commission expense is paid and recognized as the related revenue is recognized. Additionally, as a practical expedient, the company exp
incurred if the amortization period would have been a year or less. These costs are included in selling, general and administrative expenses.

Product Warranties

The company offers warranties for its hardware products that generally range up to three years, with the majority being either one or three years. Any cost of standard warranties is accrue
is recognized. The company estimates its standard warranty costs for products based on historical warranty claim experience and estimates of future spending and applies this estimate
under warranty. Estimated future costs for warranties applicable to revenue recognized in the current period are charged to cost of sales. The warranty liability is reviewed quarterly to verify t
obligation based on the anticipated expenditures over the balance of the obligation period. Adjustments are made when actual warranty claim experience differs from estimates. Costs from
contracts, including extended warranty contracts, are recognized as incurred.

Revenue from extended warranty contracts is initially recorded as deferred income and subsequently recognized on a straight-line basis over the delivery period because the company is p
to provide services over such term.

Refer to note R, "Commitments & Contingencies," for additional information.

Shipping and Handling

Costs related to shipping and handling are recognized as incurred and included in cost in the Consolidated Income Statement.

Expense and Other Income

Selling, General and Administrative

Selling, general and administrative (SG&A) expense is charged to income as incurred, except for certain sales commissions, which are capitalized and amortized. For further infor
commissions, see "Incremental Costs of Obtaining a Contract" above. Expenses of promoting and selling products and services are classified as selling expense and, in addition to sales c
compensation, advertising and travel. General and administrative expense includes such items as compensation, legal costs, office supplies, non-income taxes, insurance and office rental. In
expense includes other operating items such as an allowance for credit losses, workforce rebalancing charges for contractually obligated payments to employees terminated in the ongoing c
related to business combinations, amortization of certain intangible assets and environmental remediation costs.

Advertising and Promotional Expense

The company expenses advertising and promotional costs as incurred. Cooperative advertising reimbursements from vendors are recorded net of advertising and promotional expense
advertising and promotional expense is incurred.

Advertising and promotional expense, which includes media, agency and promotional expense, was $1,330 million, $1,413 million and $1,509 million in 2022, 2021 and 2020, respectively, a
the Consolidated Income Statement.

Research, Development and Engineering

Research, development and engineering (RD&E) costs are expensed as incurred. Software costs that are incurred to produce the finished product after technological feasibility has bee
intangible asset.

Intellectual Property and Custom Development Income

The company licenses and sells the rights to certain of its intellectual property (IP) including internally developed patents, trade secrets and technological know-how. Certain IP transac
royalty-based and others are transaction-based sales/other transfers. Income from licensing arrangements is recognized at the inception of the license term if the nature of the company's pro
company's intellectual property as it exists at that point in time (i.e., the license is functional intellectual property) and control has transferred to the client. Income is recognized over time if th
is to provide a right to access the company's intellectual property throughout the license period (i.e., the license is symbolic intellectual property), such as a trademark license. Income from
recognized at the later of when the subsequent sale or usage occurs or the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially s
into cross-licensing arrangements of patents, and income from these arrangements is recognized when control transfers to the customer. In addition, the company earns income from certai
strategic technology partners and specific clients. The company records the income from these projects over time as the company satisfies the performance obligation if the fee is nonrefund
ultimate success of the project.

Other (Income) and Expense

Components of other (income) and expense are as follows:

($ in millions)

For the year ended December 31:	2022	
Other (income) and expense		
Foreign currency transaction losses/(gains)*	$ (643)	$
(Gains)/losses on derivative instruments	225	
Interest income	(162)	
Net (gains)/losses from securities and investment assets	278	
Retirement-related costs/(income)	6,548 **	
Other[È]	(443)	
Total other (income) and expense	$ 5,803	$

* The company uses financial hedging instruments to limit specific currency risks related to foreign currency-based transactions. The hedging program does not hedge 100 percent of currency exposures and defers, vers
Refer to note T, "Derivative Financial Instruments," for additional information on foreign exchange risk.

** Includes a one-time, non-cash pension settlement charge of $5.9 billion. Refer to note V, "Retirement-Related Benefits," for additional information.

È Other primarily consists of (gains)/losses from divestitures, dispositions of land/buildings and other.

Government Assistance

The company receives grants from governments and government agencies (government) in support of certain of the company's business activities, primarily related to research, job creation,
received in the form of cash as either a recovery for expenses incurred or as an incentive for meeting certain requirements as agreed to in the grant, with terms ranging from one to five ye
against Cost, SG&A and RD&E in the Consolidated Income Statement based on the nature of the grant and the expense being offset once the conditions and restrictions of the grant hav
received from the government. When a grant is received before conditions of the grant have been met, the grant is recorded in other accrued expenses and liabilities or other liabilities in th
the year ended December 31, 2022, grants recorded in the company's Consolidated Financial Statements were not material.

Business Combinations and Intangible Assets Including Goodwill

The company accounts for business combinations using the acquisition method and accordingly, the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in t
at their acquisition date fair values. Contract assets and contract liabilities are measured in accordance with the guidance on revenue recognition. Goodwill represents the excess of the p
net assets, including the amount assigned to identifiable intangible assets. The primary drivers that generate goodwill are the value of synergies between the acquired entities and the co
workforce, neither of which qualifies as a separately identifiable intangible asset. Goodwill recorded in an acquisition is assigned to applicable reporting units based on expected revenues
intangible assets with finite lives are amortized over their useful lives. Amortization of completed technology is recorded in cost, and amortization of all other intangible assets is recorded in
costs, including advisory, legal, accounting, valuation and pre-close and other
costs, are typically expensed in the periods in which the costs are incurred and are recorded in SG&A expense. The results of operations of acquired businesses are included in the Consolid
acquisition date.

Impairment

Long-lived assets, other than goodwill, are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The impairment tes
cash flows and, if impaired, the asset is written down to fair value based on either discounted cash flows or appraised values. Goodwill is tested for impairment at least annually, in the fourt
circumstances indicate an impairment may exist. The goodwill impairment test is performed at the reporting unit level, which is generally at the level of or one level below an operating segm

Depreciation and Amortization

Property, plant and equipment are carried at cost and depreciated over their estimated useful lives using the straight-line method. The estimated useful lives of certain depreciable assets
years; building equipment, 10 to 20 years; land improvements, 20 years; production, engineering, office and other equipment, 2 to 20 years; and information technology equipment, 1.5 to
are amortized over the shorter of their estimated useful lives or the related lease term, rarely exceeding 25 years. Refer to the "Use of Estimates" section above for additional information a
technology equipment.

As noted within the "Software Costs" section of this note, capitalized software costs are amortized on a straight-line basis over periods ranging up to 3 years. Other intangible assets are am
20 years.

Environmental

The cost of internal environmental protection programs that are preventative in nature are expensed as incurred. When a cleanup program becomes likely, and it is probable that the compan
costs can be reasonably estimated, the company accrues remediation costs for known environmental liabilities.

Asset Retirement Obligations

Asset retirement obligations (ARO) are legal obligations associated with the retirement of long-lived assets and the liability is initially recorded at fair value. The related asset retirement cos
carrying amount of the related assets by the same amount as the liability. Asset retirement costs are subsequently depreciated over the useful lives of the related assets. Subsequent to initi
period-to-period changes in the ARO liability resulting from the passage of time in interest expense and revisions to either the timing or the amount of the original expected cash flows to the

Defined Benefit Pension and Nonpension Postretirement Benefit Plans

The funded status of the company's defined benefit pension plans and nonpension postretirement benefit plans (retirement-related benefit plans) is recognized in the Consolidated Balance Sh
as the difference between the fair value of plan assets and the benefit obligation at December 31, the measurement date. For defined benefit pension plans, the benefit obligation is the proje
represents the actuarial present value of benefits expected to be paid upon retirement based on employee services already rendered and estimated future compensation levels. For the nonp
the benefit obligation is the accumulated postretirement benefit obligation (APBO), which represents the actuarial present value of postretirement benefits attributed to employee services alre
assets represents the current market value of assets held in an irrevocable trust fund, held for the sole benefit of participants, which are invested by the trust fund. Overfunded plans, with the
the benefit obligation, are aggregated and recorded as a prepaid pension asset equal to this excess. Underfunded plans, with the benefit obligation exceeding the fair value of plan assets,
retirement and nonpension postretirement benefit obligation equal to this excess.

The current portion of the retirement and nonpension post-retirement benefit obligations represents the actuarial present value of benefits payable in the next 12 months exceeding the fair v
plan-by-plan basis. This obligation is recorded in compensation and benefits in the Consolidated Balance Sheet.

Net periodic pension and nonpension postretirement benefit cost/(income) is recorded in the Consolidated Income Statement and includes service cost, interest cost, expected return on plan
costs/(credits) and (gains)/losses previously recognized as a component of other comprehensive income/(loss) (OCI) and amortization of the net transition asset remaining in accumulated
(AOCI). The service cost component of net benefit cost is recorded in Cost, SG&A and RD&E in the Consolidated Income Statement (unless eligible for capitalization) based on the employe
components of net benefit cost are presented separately from service cost within other (income) and expense in the Consolidated Income Statement.

(Gains)/losses and prior service costs/(credits) are recognized as a component of OCI in the Consolidated Statement of Comprehensive Income as they arise. Those (gains)/losses a
subsequently recognized as a component of net periodic
cost/(income) pursuant to the recognition and amortization provisions of applicable accounting guidance. (Gains)/losses arise as a result of differences between actual experience and assu
actuarial assumptions. Prior service costs/(credits) represent the cost of benefit changes attributable to prior service granted in plan amendments.

The measurement of benefit obligations and net periodic cost/(income) is based on estimates and assumptions approved by the company's management. These valuations reflect the terr
specific information such as compensation, age and years of service, as well as certain assumptions, including estimates of discount rates, expected return on plan assets, rate of compe
rates and mortality rates.

Defined Contribution Plans

The company's contribution for defined contribution plans is recorded when the employee renders service to the company. The charge is recorded in Cost, SG&A and RD&E in the Consol
the employees' respective functions.

Stock-Based Compensation

Stock-based compensation represents the cost related to stock-based awards granted to employees. The company measures stock-based compensation cost at the grant date, based on th
and recognizes the cost on a straight-line basis (net of estimated forfeitures) over the employee requisite service period. The company grants its employees Restricted Stock Units (RSUs), i
Units (RRSUs); Performance Share Units (PSUs); and stock options. RSUs are stock awards granted to employees that entitle the holder to shares of common stock as the award vests, typic
PSUs are stock awards where the number of shares ultimately received by the employee depends on performance against specified targets and typically vest over a three-year period. Over t
of shares that will be issued is adjusted based upon the probability of achievement of performance targets. The ultimate number of shares issued and the related compensation cost recogn
comparison of the final performance metrics to the specified targets. Dividend equivalents are not paid on the stock awards described above. The fair value of the awards is determined an
the company's stock price, adjusted for the exclusion of dividend equivalents where applicable and for PSUs assumes that performance targets will be achieved. The company estimates th
Black-Scholes valuation model. Stock-based compensation cost is recorded in Cost, SG&A, and RD&E in the Consolidated Income Statement based on the employees' respective functions

The company records deferred tax assets for awards that result in deductions on the company's income tax returns, based on the amount of compensation cost recognized and the relevant
between the deferred tax assets recognized for financial reporting purposes and the actual tax deduction reported on the income tax return are recorded as a benefit or expense to th
Consolidated Income Statement.

Income Taxes

Income tax expense is based on reported income before income taxes. Deferred income taxes reflect the tax effect of temporary differences between asset and liability amounts that ar
purposes and the amounts that are recognized for income tax purposes. These deferred taxes are measured by applying currently enacted tax laws. The company includes Global Intan
measuring deferred taxes. Valuation allowances are recognized to reduce deferred tax assets to the amount that will more likely than not be realized. In assessing the need for a valuation all
available evidence for each jurisdiction including past operating results, estimates of future taxable income and the feasibility of ongoing tax planning strategies/actions. When the company
amount of deferred tax assets that can be realized, the valuation allowance is adjusted with a corresponding impact to income tax expense in the period in which such determination is made

The company recognizes additional tax liabilities when the company believes that certain positions may not be fully sustained upon review by tax authorities. Benefits from tax positions a
of benefit that is greater than 50 percent likely of being realized upon settlement. The noncurrent portion of tax liabilities is included in other liabilities in the Consolidated Balance Sheet.
becomes available which causes the company to change its judgment regarding the adequacy of existing tax liabilities, such changes to tax liabilities will impact income tax expense in the p
made. Interest and penalties, if any, related to accrued liabilities for potential tax assessments are included in income tax expense.

Translation of Non-U.S. Currency Amounts

Assets and liabilities of non-U.S. subsidiaries that have a local functional currency are translated to U.S. dollars at year-end exchange rates. Translation adjustments are recorded in O
translated at weighted-average rates of exchange prevailing during the year.

Inventory, property, plant and equipment—net and other non-monetary assets and liabilities of non-U.S. subsidiaries and branches that operate in U.S. dollars are translated at the approxim
the company acquired the assets or
liabilities. All other assets and liabilities denominated in a currency other than U.S. dollars are translated at year-end exchange rates with the transaction gain or loss recognized in other (
expense items are translated at the weighted-average rates of exchange prevailing during the year. These translation gains and losses are included in net income for the period in which exc

Derivative Financial Instruments

The company uses derivative financial instruments primarily to manage foreign currency and interest rate risk, and to a lesser extent, equity and credit risk. The company does not use
trading or speculative purposes. Derivatives that qualify for hedge accounting can be designated as either cash flow hedges, net investment hedges, or fair value hedges. The company may
economically hedge certain of its risks, even when hedge accounting does not apply, or the company elects not to apply hedge accounting.

Derivatives are recognized in the Consolidated Balance Sheet at fair value on a gross basis as either assets or liabilities and classified as current or noncurrent based upon whether the ma
or greater than 12 months.

Changes in the fair value of derivatives designated as a cash flow hedge are recorded, net of applicable taxes, in OCI and subsequently reclassified into the same income statement line
underlying hedged item is recognized in earnings. Effectiveness for net investment hedging derivatives is measured on a spot-to-spot basis. Changes in the fair value of highly effective net
other non-derivative financial instruments designated as net investment hedges are recorded as foreign currency translation adjustments in AOCI. Changes in the fair value of the portion of
excluded from the assessment of effectiveness are recorded in interest expense and cost of financing. Changes in the fair value of interest rate derivatives designated as a fair value hedg
fair value of the underlying hedged exposure are recorded in interest expense and cost of financing. Changes in the fair value of derivatives not designated as hedges are reported in earn
expense. See note T, "Derivative Financial Instruments," for further information.

The cash flows associated with derivatives designated as fair value and cash flow hedges are reported in cash flows from operating activities in the Consolidated Statement of Cash F
designated as net investment hedges and derivatives not designated as hedges are reported in cash flows from investing activities in the Consolidated Statement of Cash Flows. Cash fl
hedges of foreign currency denominated debt directly associated with the settlement of the principal are reported in payments to settle debt in cash flows from financing activities in the Cons

Financial Instruments

In determining the fair value of its financial instruments, the company uses a variety of methods and assumptions that are based on market conditions and risks existing at each balance
Assets & Liabilities," for further information. All methods of assessing fair value result in a general approximation of value, and such value may never actually be realized.

Fair Value Measurement

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The co
liabilities based on the following fair value hierarchy:

- Level 1–Quoted prices (unadjusted) in active markets for identical assets or liabilities that can be accessed at the measurement date;
- Level 2–Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and
- Level 3–Unobservable inputs for the asset or liability.

When available, the company uses unadjusted quoted market prices in active markets to measure the fair value and classifies such items as Level 1. If quoted market prices are not availabl
developed models that use current market-based or independently sourced market parameters such as interest rates and currency rates. Items valued using internally generated models ar
level input or value driver that is significant to the valuation.

The determination of fair value considers various factors including interest rate yield curves and time value underlying the financial instruments. For derivatives and debt securities, the cor
analysis using discount rates commensurate with the duration of the instrument.

In determining the fair value of financial instruments, the company considers certain market valuation adjustments to the "base valuations" calculated using the methodologies describec
market participants would consider in determining fair value:

- Counterparty credit risk adjustments are applied to financial instruments, taking into account the actual credit risk of a counterparty as observed in the credit default swap market to deter instrument.
- Credit risk adjustments are applied to reflect the company's own credit risk when valuing all liabilities measured at fair value. The methodology is consistent with that applied in developin adjustments, but incorporates the company's own credit risk as observed in the credit default swap market.

The company holds investments primarily in time deposits, certificates of deposit, and U.S. government debt that are designated as available-for-sale. The primary objective of the company's is to maintain principal by investing in very liquid and highly rated investment grade securities.

Available-for-sale securities are measured for impairment on a recurring basis by comparing the security's fair value with its amortized cost basis. If the fair value of the security falls below its fair value is recognized in the period the impairment is identified when the loss is due to credit factors. The change in fair value due to non-credit factors is recorded in other comprehensive i intend to sell and has the ability to hold the investment. The company's standard practice is to hold all of its debt security investments classified as available-for-sale until maturity. There we and no material non-credit impairments recognized for the years ended December 31, 2022, 2021 and 2020.

Certain nonfinancial assets such as property, plant and equipment, land, goodwill and intangible assets are subject to nonrecurring fair value measurements if they are deemed to be impaire nonfinancial assets depend on the type of asset. There were no material impairments of nonfinancial assets for the years ended December 31, 2022, 2021 and 2020.

Cash Equivalents
All highly liquid investments with maturities of three months or less at the date of purchase are considered to be cash equivalents.

Marketable Securities
The company measures equity investments at fair value with changes recognized in net income.

Debt securities included in current assets represent securities that are expected to be realized in cash within one year of the balance sheet date. Long-term debt securities and allianc investments and sundry assets. At December 31, 2022 and 2021, alliance equity securities were $142 million and $159 million, respectively. Debt securities are considered available-for-sal unrealized gains and losses, net of applicable taxes, in OCI. The realized gains and losses on available-for-sale debt securities are included in other (income) and expense in the Consol gains and losses are calculated based on the specific identification method.

Inventory
Raw materials, work in process and finished goods are stated at the lower of average cost or net realizable value.

Notes and Accounts Receivable—Trade and Contract Assets
The company classifies the right to consideration in exchange for products or services transferred to a client as either a receivable or a contract asset. A receivable is a right to consideratio to a contract asset which is a right to consideration that is conditional upon factors other than the passage of time. The majority of the company's contract assets represent unbilled amounts contracts when the cost-to-cost method of revenue recognition is utilized, revenue recognized exceeds the amount billed to the client, and the right to consideration is subject to milestor Contract assets are generally classified as current and are recorded on a net basis with deferred income (i.e., contract liabilities) at the contract level.

Financing Receivables
Financing receivables primarily consist of client loan and installment payment receivables (loans) and investment in sales-type and direct financing leases (collectively referred to as client fina financing receivables. Leases are accounted for in accordance with lease accounting standards. Loans, which are generally unsecured, are primarily for software and services. Commercia for working capital financing to distributors and resellers of IBM products and services. Financing receivables are classified as either held for sale or held for investment, depending on the the underlying contract for the foreseeable future or until maturity or payoff. Loans and commercial financing receivables are recorded at amortized cost, which approximates fair value.

Transfers of Financial Assets
The company enters into arrangements to sell certain financial assets (primarily notes and accounts receivable–trade and financing receivables) to third-party financial institutions. For considered a sale, the asset must be legally
isolated from the company and the purchaser must have control of the asset. Determining whether all the requirements have been met includes an evaluation of legal considerations, the involvement with the assets transferred and any other relevant consideration. When the true sale criteria are met, the company derecognizes the carrying value of the financial asset trans loss on the sale. The proceeds from these arrangements are reflected as cash provided by operating activities in the Consolidated Statement of Cash Flows. If the true sale criteria are n secured borrowing and the financial asset remains on the Consolidated Balance Sheet with proceeds from the sale recognized as debt and recorded as cash flows from financing activitie Cash Flows.

Arrangements to sell notes and accounts receivable–trade are used in the normal course of business as part of the company's cash and liquidity management. Facilities primarily in the U enable the company to sell certain notes and accounts receivable–trade, without recourse, to third parties in order to manage credit, collection, concentration and currency risk. The gross under these arrangements were $3.3 billion, $1.8 billion and $2.2 billion for the years ended December 31, 2022, 2021 and 2020, respectively. Within the notes and accounts receivables the Consolidated Balance Sheet, $1.0 billion, $0.7 billion, and $0.4 billion remained uncollected from customers at December 31, 2022, 2021 and 2020, respectively. The fees and the net g transfer of receivables were not material for any of the periods presented. Refer to note L, "Financing Receivables," for more information on transfers of financing receivables.

Allowance for Credit Losses
Receivables are recorded concurrent with billing and shipment of a product and/or delivery of a service to customers. An allowance for uncollectible trade receivables and contract assets specific customer situations, current and future expected economic conditions, past experiences of losses, as well as an assessment of potential recoverability of the balance due.

The company estimates its allowances for expected credit losses for financing receivables by considering past events, including any historical default, historical concessions and resulting t economic conditions, any non-freestanding mitigating credit enhancements, and certain forward-looking information, including reasonable and supportable forecasts. The methodologies tha financing receivables reserves, which are applied consistently to its different portfolios, are as follows:

Individually Evaluated–The company reviews all financing receivables considered at risk quarterly, and performs an analysis based upon current information available about the client, s reports, published credit ratings, current market-implied credit analysis, as well as collateral net of repossession cost, prior collection history and current and future expected economic con dependent, impairment is measured using the fair value of the collateral when foreclosure is probable. Using this information, the company determines the expected cash flow for the recei the potential loss and the probability of loss. For those accounts in which the loss is probable, the company records a specific reserve.

Collectively Evaluated–The company determines its allowances for credit losses for collectively evaluated financing receivables (unallocated) based on two portfolio segments: client fina financing receivables. The company further segments the portfolio into three classes: Americas, Europe/Middle East/Africa (EMEA) and Asia Pacific.

For client financing receivables, the company uses a credit loss model to calculate allowances based on its internal loss experience and current conditions and forecasts, by class of financin an unallocated reserve that is calculated by applying a reserve rate to its portfolio, excluding accounts that have been individually evaluated and specifically reserved. This reserve rate is ba default, term and loss history. The allowance is adjusted quarterly for expected recoveries of amounts that were previously written off or are expected to be written off. Recoveries cannot ex previous write-off or expected write-off.

The company considers forward-looking macroeconomic variables such as gross domestic product, unemployment rates, equity prices and corporate profits when quantifying the impact financing receivables allowance for expected credit losses. Macroeconomic variables may vary by class of financing receivables based on historical experiences, portfolio composition and also considers the impact of current conditions and economic forecasts relating to specific industries, geographical areas, and client credit ratings, in addition to performing a qualitative rev portfolio. Under this approach, forecasts of these variables over two years are considered reasonable and supportable. Beyond two years, the company reverts to long-term average loss exp require the use of judgment, particularly in times of economic uncertainty.

The portfolio of commercial financing receivables is short term in nature and any allowance for these assets is estimated based on a combination of write-off history and current economic c evaluated accounts.

Other Credit-Related Policies

Past Due–The company views receivables as past due when payment has not been received after 90 days, measured from the original billing date.

Non-Accrual–Non-accrual assets include those receivables (impaired loans or nonperforming leases) with specific reserves and other accounts for which it is likely that the company will b according to original terms of the lease or loan agreement. Interest income recognition is discontinued on these receivables. Cash collections are first applied as a reduction to principal outsta of principal payments outstanding is recognized as interest income. Receivables may be removed from non-accrual status, if appropriate, based upon changes in client circumstances, such

Write-Off–Receivable losses are charged against the allowance in the period in which the receivable is deemed uncollectible. Subsequent recoveries, if any, are credited to the allowance. Writ reserves occur to the extent that the customer is no longer in operation and/or there is no reasonable expectation of additional collections or repossession.

Leases

The company conducts business as both a lessee and a lessor. In its ordinary course of business, the company enters into leases as a lessee for property, plant and equipment. The co equipment, mainly through its Financing segment.

When procuring goods or services, or upon entering into a contract with its clients, the company determines whether an arrangement contains a lease at its inception. As part of that evaluati there is an implicitly or explicitly identified asset in the arrangement and whether the company, as the lessee, or the client, if the company is the lessor, has the right to control the use of that

Accounting for Leases as a Lessee

When the company is the lessee, all leases with a term of more than 12 months are recognized as right-of-use (ROU) assets and associated lease liabilities in the Consolidated Balance Shee at the lease commencement date and determined using the present value of the lease payments not yet paid and the company's incremental borrowing rate, which approximates the rate a on a secured basis in the country where the lease was executed. The interest rate implicit in the lease is generally not determinable in transactions where the company is the lessee. The l adjusted for any initial direct costs (IDCs), prepaid rent and lease incentives. The company's variable lease payments generally relate to payments tied to various indexes, non-lease c contractual minimum fixed amount.

Operating leases are included in operating right-of-use assets–net, current operating lease liabilities and operating lease liabilities in the Consolidated Balance Sheet. Finance leases equipment, short-term debt and long-term debt in the Consolidated Balance Sheet. The lease term includes options to extend or terminate the lease when it is reasonably certain that the co

The company made a policy election to not recognize leases with a lease term of 12 months or less in the Consolidated Balance Sheet.

For all asset classes, the company has elected the lessee practical expedient to combine lease and non-lease components (e.g., maintenance services) and account for the combined u significant portion of the company's lease portfolio is real estate, which are mainly accounted for as operating leases, and are primarily used for corporate offices and data centers. The avera approximately five years. The company also has equipment leases, such as IT equipment and vehicles, which have lease terms that range from two to five years. For certain of these operatin applies a portfolio approach to account for the lease assets and lease liabilities.

Accounting for Leases as a Lessor

The company typically enters into leases as an alternative means of realizing value from equipment that it would otherwise sell. Assets under lease primarily include new and used IBM e consists of zSystems, Power and Storage products.

Lease payments due to IBM are typically fixed and paid in equal installments over the lease term. The majority of the company's leases do not contain variable payments that are depend lease payments that do not depend on an index or a rate (e.g., property taxes), that are paid directly by the company and are reimbursed by the client, are recorded as revenue, along w which collection of these payments is probable. Payments that are made directly by the client to a third party, including certain property taxes and insurance, are not considered part of varia recorded by the company. The company has made a policy election to exclude from consideration in contracts all collections from sales and other similar taxes.

The company's payment terms for leases are typically unconditional. Therefore, in an instance when the client requests to terminate the lease prior to the end of the lease term, the client w remaining lease payments in full. At the end of the lease term, the company allows the client to either return the equipment, purchase the equipment at the then-current fair market value o renew the lease based on mutually agreed upon terms.

When lease arrangements include multiple performance obligations, the company allocates the consideration in the contract between the lease components and the non-lease components o basis.

Sales-Type and Direct Financing Leases

For a sales-type or direct financing lease, the carrying amount of the asset is derecognized from inventory and a net investment in the lease is recorded. For a sales-type lease, the net in at commencement date as the sum of the lease receivable and the estimated residual value of the equipment less unearned income and allowance for credit losses. Any selling profit or los recorded at lease commencement. Selling profit or loss is presented on a gross basis when the company enters into a lease to realize value from a product that it would otherwise sell in segment reporting, the net investment in sales-type leases excluding the allowance for credit losses is recognized as hardware revenue in the Infrastructure segment, while the estimated r income is recognized as a reduction in revenue in the Other revenue category and represents the portion of fair value retained by the company. In transactions where the company en generating revenue by providing financing, the selling profit or loss is presented on a net basis. Under a sales-type lease, initial direct costs are expensed at lease commencement. Over recognizes finance income on the net investment in the lease and any variable lease payments, which are not included in the net investment in the lease.

For a direct financing lease, the net investment in the lease is measured similarly to a sales-type lease, however, the net investment in the lease is reduced by any selling profit. In a direct fi initial direct costs are deferred at commencement and recognized over the lease term. The company rarely enters into direct financing leases.

The estimated residual value represents the estimated fair value of the equipment under lease at the end of the lease. The company estimates the future fair value of leased equipment by us current market for new and used equipment and obtaining forward-looking product information such as marketing plans and technology innovations. The company optimizes the recovery of arrangements with, or selling leased equipment to existing clients, and periodically reassesses the realizable value of its lease residual values. Anticipated decreases in specific future resid other-than-temporary are recognized immediately upon identification and are recorded as adjustments to the residual value estimate and unearned income, which reduces current period respectively.

Common Stock

Common stock refers to the $.20 par value per share capital stock as designated in the company's Certificate of Incorporation. Treasury stock is accounted for using the cost method. When t is computed and recorded using a weighted-average basis.

Earnings Per Share of Common Stock

Earnings per share (EPS) is computed using the two-class method, which determines EPS for each class of common stock and participating securities according to dividends and divide participation rights in undistributed earnings. Basic EPS of common stock is computed by dividing net income by the weighted-average number of common shares outstanding for the perio computed on the basis of the weighted-average number of shares of common stock plus the effect of dilutive potential common shares outstanding during the period using the treasury stock shares include outstanding stock awards, convertible notes and stock options.

Accounting Changes

[Accounting Changes](#)

Accounting Changes

12 Months Ended
Dec. 31, 2022

NOTE B. ACCOUNTING CHANGES

New Standards to be Implemented

Disclosures of Supplier Finance Program Obligations

Standard/Description–Issuance date: September 2022. This guidance requires an entity to provide certain interim and annual disclosures about the use of supplier finance programs in connection with the purchase of goods or services.

Effective Date and Adoption Considerations–The guidance was effective January 1, 2023 with certain annual disclosures required beginning in 2024 and early adoption was permitted. The company adopted the guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters–As the guidance is a change to disclosures only, the company does not expect it to have a material impact in the consolidated financial results. The company's use of supplier finance programs as of December 31, 2022 was not material.

Troubled Debt Restructurings and Vintage Disclosures

Standard/Description–Issuance date: March 2022. This eliminates the accounting guidance for troubled debt restructurings and requires an entity to apply the general loan modification guidance to all loan modifications, including those made to customers experiencing financial difficulty, to determine whether the modification results in a new loan or a continuation of an existing loan. The guidance also requires presenting current period gross write-offs by year of origination for financing receivables and net investment in leases.

Effective Date and Adoption Considerations–The amendment was effective January 1, 2023 and early adoption was permitted. The company adopted the guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance is not expected to have a material impact in the consolidated financial results.

Standards Implemented

Disclosures about Government Assistance

Standard/Description–Issuance date: November 2021. This guidance requires an entity to provide certain annual disclosures about government assistance received and accounted for by applying a grant or contribution accounting model by analogy.

Effective Date and Adoption Considerations–The guidance was effective for annual disclosures beginning in 2022 and early adoption was permitted. The company adopted the guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results. Refer to note A, "Significant Accounting Policies," for additional information.

Lessors–Certain Leases with Variable Lease Payments

Standard/Description–Issuance date: July 2021. This guidance modifies a lessor's accounting for certain leases with variable lease payments that resulted in the recognition of a day-one loss even if the lessor expected the arrangement to be profitable overall. The amendment requires these types of lease contracts to be classified as operating leases which eliminates any recognition of a day-one loss.

Effective Date and Adoption Considerations–The amendment was effective January 1, 2022 and early adoption was permitted. The company adopted the guidance on a prospective basis as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results.

Revenue Contracts with Customers Acquired in a Business Combination

Standard/Description–Issuance date: October 2021. This guidance requires that an acquirer recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with revenue guidance, as if it had originated the contracts. Deferred revenue acquired in a business combination is no longer required to be measured at its fair value, but rather will generally be recognized at the same basis as the acquiree.

Effective Date and Adoption Considerations–The amendment was effective January 1, 2023 and early adoption was permitted, including adoption in an interim period. The company adopted the guidance as of October 1, 2021 using the retrospective transition method whereby the new guidance was applied to all business combinations that occurred on or after January 1, 2021.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results. The impact of the guidance in IBM's future financial results will be dependent on the nature and size of its acquisitions.

Simplifying the Accounting for Income Taxes

Standard/Description–Issuance date: December 2019. This guidance simplifies various aspects of income tax accounting by removing certain exceptions to the general principle of the guidance and also clarifies and amends existing guidance to improve consistency in application.

Effective Date and Adoption Considerations–The guidance was effective January 1, 2021 and early adoption was permitted. The company adopted the guidance on a prospective basis as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results.

For all other standards that the company adopted in the periods presented, there was no material impact in the consolidated financial results.

Separation of Kyndryl

12 Months Ended Dec. 31, 2022

[**Separation of Kyndryl**]

[Separation of Kyndryl]

NOTE C. SEPARATION OF KYNDRYL

As discussed in note A, "Significant Accounting Policies," on November 3, 2021, the company completed the separation of its managed infrastructure services unit into a new public company, Kyndryl.

The historical results of Kyndryl have been presented as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented. The company's presentation of discontinued operations excludes general corporate overhead costs which were historically allocated to Kyndryl, consistent with the company's management system, that did not meet the requirements to be presented in discontinued operations. Such allocations include labor and non-labor expenses related to IBM's corporate support functions (e.g., finance, accounting, tax, treasury, IT, HR, legal, among others) that historically provided support to Kyndryl and transferred to Kyndryl at separation. In addition, discontinued operations excludes the historical intercompany purchases and sales between IBM and Kyndryl that were eliminated in consolidation.

IBM will provide transition services to Kyndryl predominantly consisting of information technology services for a period no longer than two years after the separation. The impact of these transition services on the company's Consolidated Financial Statements for the year ended December 31, 2022 was not material.

At separation, IBM and Kyndryl entered into various commercial agreements pursuant to which Kyndryl will purchase hardware, software and services from IBM and under which IBM will receive hosting and information infrastructure services from Kyndryl. As part of the separation, IBM has also committed to provide upgraded hardware at no cost to Kyndryl over a two-year period after the separation. An estimate of the remaining obligation under the agreement is recorded in other accrued expenses and liabilities in the Consolidated Balance Sheet.

The total net impact to stockholder's equity from the separation was a reduction of $7,203 million, which was reflected as a reduction of $8,404 million, $1,264 million and $62 million to retained earnings, accumulated other comprehensive income/(loss) and noncontrolling interest, respectively, in the Consolidated Statement of Equity as of December 31, 2021.

The following table presents the major categories of income/(loss) from discontinued operations, net of tax.

($ in millions)

For the year ended December 31:	2022	2021 *	2020 *
Revenue	$ 7	$ 14,994	$ 18,441
Cost of sales	24	11,270	13,651
Selling, general and administrative expense	86	1,869 **	1,641 **
Kyndryl-related workforce rebalancing charges	—	31 **	884 **
RD&E and Other (income) and expense	(84)	80	124
Income/(loss) from discontinued operations before income taxes	$ (20)	$ 1,744	$ 2,142
Provision for income taxes	124	714 È	484
Income/(loss) from discontinued operations, net of tax ÈÈ	$ (143)	$ 1,030	$ 1,658

* Excludes intercompany transactions between IBM and Kyndryl and general corporate overhead costs transferred to Kyndryl as discussed above.

** Recast to conform to 2022 presentation.

È Includes tax charges related to the Kyndryl separation.

ÈÈ Includes $(1) million and $89 million in 2021 and 2020, respectively, related to discontinued operations of Microelectronics, divested in 2015.

Loss from discontinued operations before income taxes for the year ended December 31, 2022 primarily reflects the net impact of changes in separation-related estimates, the settlement of assets and liabilities in accordance with the separation and distribution agreement and a gain on sale of a joint venture historically managed by Kyndryl, which transferred to Kyndryl in the first quarter of 2022 upon receiving regulatory approval. The discontinued operations provision for income taxes for the year ended December 31, 2022, primarily reflects the impact of provision to return adjustments on the Kyndryl-related taxes.

Separation costs of $5 million, $1,042 million and $21 million incurred during the years ended December 31, 2022, 2021 and 2020, respectively, are included in income/(loss) from discontinued operations, net of tax, in the Consolidated Income Statement. These charges primarily relate to transaction and third-party support costs, business separation and applicable employee retention fees, pension settlement charges and related tax charges.

The following table presents selected financial information related to cash flows from discontinued operations.

($ in millions)

For the year ended December 31:	2022	2021	2020
Net cash provided by/(used in) operating activities	$ —	$1,612 *	$4,403
Net cash provided by/(used in) investing activities	48	(380)	(935)

* Excludes intercompany transactions between IBM and Kyndryl and general corporate overhead costs transferred to Kyndryl as discussed above.

Revenue Recognition	12 Months Ended Dec. 31, 2022

Revenue Recognition

Revenue Recognition

NOTE D. REVENUE RECOGNITION

Disaggregation of Revenue

The following tables provide details of revenue by major products/service offerings, hybrid cloud revenue, and revenue by geography.

Revenue by Major Products/Service Offerings

($ in millions)

For the year ended December 31:	2022	2021	2020
Hybrid Platform & Solutions	$17,866	$17,036 *	$15,518 *
Transaction Processing	7,171	6,390	6,606
Total Software	$25,037	$23,426 *	$22,124 *
Business Transformation	$ 8,834	$ 8,284	$ 7,193
Application Operations	6,508	6,095	5,931
Technology Consulting	3,765	3,466	3,133
Total Consulting	$19,107	$17,844	$16,257
Hybrid Infrastructure	$ 9,451	$ 8,167	$ 8,415
Infrastructure Support	5,837	6,021	6,118
Total Infrastructure	$15,288	$14,188	$14,533
Financing**	$ 645	$ 774	$ 975
Other	$ 453	$ 1,119 *	$ 1,291 *
Total Revenue	$60,530	$57,350	$55,179

* Recast to reflect segment change.

** Contains lease and loan financing arrangements which are not subject to the guidance on revenue from contracts with customers.

Hybrid Cloud Revenue by Segment

($ in millions)

For the year ended December 31:	2022	2021	2020
Software	$ 9,321	$ 8,386 *	$ 6,517 *
Consulting	9,019	7,852	5,861
Infrastructure	3,895	3,645	4,039
Other	142	328 *	422 *
Total	$22,377	$20,210	$16,838

* Recast to reflect segment change.

Revenue by Geography

($ in millions)

For the year ended December 31:	2022	2021	2020
Americas	$31,057	$28,299	$27,119
Europe/Middle East/Africa	17,950	17,447	16,767
Asia Pacific	11,522	11,604	11,293
Total	$60,530	$57,350	$55,179

Remaining Performance Obligations

The remaining performance obligation (RPO) disclosure provides the aggregate amount of the transaction price yet to be recognized as of the end of the reporting period and an explanation as to when the company expects to recognize these amounts in revenue. It is intended to be a statement of overall work under contract that has not yet been performed and does not include contracts in which the customer is not committed, such as certain as-a-Service, governmental, term software license and services offerings. The customer is not considered committed when they are able to terminate for convenience without payment of a substantive penalty. The disclosure includes estimates of variable consideration, except when the variable consideration is a sales-based or usage-based royalty promised in exchange for a license of intellectual property. Additionally, as a practical expedient, the company does not include contracts that have an original duration of one year or less. RPO estimates are subject to change and are affected by several factors, including terminations, changes in the scope of contracts, periodic revalidations, adjustment for revenue that has not materialized and adjustments for currency.

At December 31, 2022, the aggregate amount of the transaction price allocated to RPO related to customer contracts that are unsatisfied or partially unsatisfied was $59 billion. Approximately 72 percent of the amount is expected to be recognized as revenue in the subsequent two years, approximately 26 percent in the subsequent three to five years and the balance thereafter.

Revenue Recognized for Performance Obligations Satisfied (or Partially Satisfied) in Prior Periods

For the year ended December 31, 2022, revenue was reduced by $55 million for performance obligations satisfied or partially satisfied in previous periods mainly due to changes in estimates on contracts with cost-to-cost measures of progress. Refer to note A, "Significant Accounting Policies," for additional information on these contracts and estimates of costs to complete.

Reconciliation of Contract Balances

The following table provides information about notes and accounts receivable—trade, contract assets and deferred income balances.

($ in millions)

At December 31:	2022	2021
Notes and accounts receivable — trade (net of allowances of $233 in 2022 and $218 in 2021)	$ 6,541	$ 6,754
Contract assets*	464	471
Deferred income (current)	12,032	12,518
Deferred income (noncurrent)	3,499	3,577

* Included within prepaid expenses and other current assets in the Consolidated Balance Sheet.

The amount of revenue recognized during the year ended December 31, 2022 that was included within the deferred income balance at December 31, 2021 was $10.2 billion and primarily related to services and software.

The following table provides roll forwards of the notes and accounts receivable—trade allowance for expected credit losses for the years ended December 31, 2022 and 2021.

($ in millions)

January 1, 2022	Additions/(Releases)	Write-offs	Foreign currency and Other	December 31, 2022
$218	$ 59	$(31)	$ (14)	$233

January 1, 2021	Additions/(Releases)	Write-offs	Foreign currency and Other	December 31, 2021
$260	$(15)	$(28)	$ 1	$218

The contract assets allowance for expected credit losses was not material in the years ended December 31, 2022 and 2021.

Deferred Costs

($ in millions)

At December 31:	2022	2021
Capitalized costs to obtain a contract	$ 563	$ 476
Deferred costs to fulfill a contract		
Deferred setup costs	456	546
Other deferred fulfillment costs	814	1,000
Total deferred costs*	$1,833	$2,022

* Of the total deferred costs, $967 million was current and $866 million was noncurrent at December 31, 2022 and $1,097 million was current and $924 million was noncurrent at December 31, 2021.

The amount of total deferred costs amortized during the year ended December 31, 2022 was $1,609 million and there were no material impairment losses incurred. Refer to note A, "Significant Accounting Policies," for additional information on deferred costs to fulfill a contract and capitalized costs of obtaining a contract.

Segments	12 Months Ended Dec. 31, 2022

Segments

Segments

NOTE E. SEGMENTS

In January 2022, IBM announced the divestiture of its healthcare software assets which closed in the second quarter of 2022. Refer to note F, “Acquisitions & Divestitures,” for additional information. The company re-aligned its management structure to manage these assets outside of the Software segment prior to the divestiture. Beginning in the first quarter of 2022, the financial results of these assets are presented in Other–divested businesses. This change impacted the company’s reportable segments, but did not impact its Consolidated Financial Statements. The prior-year periods have been recast to reflect this segment change.

The segments represent components of the company for which separate financial information is available that is utilized on a regular basis by the chief operating decision maker (the chief executive officer) in determining how to allocate resources and evaluate performance. The segments are determined based on several factors, including client base, homogeneity of products, technology, delivery channels and similar economic characteristics.

Certain transactions between the segments are recorded to other (income) and expense and are reflected in segment pre-tax income. These transactions predominately represent loans between Financing and Infrastructure segments to facilitate the acquisition of equipment and software used in IBM IaaS services arrangements.

The company utilizes globally integrated support organizations to realize economies of scale and efficient use of resources. As a result, a considerable amount of expense is shared by all of the segments. This shared expense includes sales coverage, certain marketing functions and support functions such as Accounting, Treasury, Procurement, Legal, Human Resources, Chief Information Office, and Billing and Collections. Where practical, shared expenses are allocated based on measurable drivers of expense, e.g., headcount. When a clear and measurable driver cannot be identified, shared expenses are allocated on a financial basis that is consistent with the company’s management system, e.g., advertising expense is allocated based on the gross profits of the segments. A portion of the shared expenses, which are recorded in net income, are not allocated to the segments. These expenses are associated with the elimination of internal transactions and other miscellaneous items.

The following tables reflect the results of continuing operations of the company’s segments consistent with the management and measurement system utilized within the company. Performance measurement is based on pre-tax income from continuing operations. These results are used by the chief operating decision maker, both in evaluating the performance of, and in allocating resources to, each of the segments.

Management System Segment View

($ in millions)

For the year ended December 31:	Software	Consulting	Infrastructure	Financing	Total Segments
2022					
Revenue	$ 25,037	$ 19,107	$ 15,288	$ 645	$ 60,077
Pre-tax income from continuing operations	6,162	1,677	2,262	340	10,441
Revenue year-to-year change	6.9 %	7.1 %	7.8 %	(16.6)%	6.8 %
Pre-tax income year-to-year change	27.1 %	15.7 %	11.7 %	(22.9)%	19.1 %
Pre-tax income margin	24.6 %	8.8 %	14.8 %	52.6 %	17.4 %
2021*					
Revenue	$ 23,426	$ 17,844	$ 14,188	$ 774	$ 56,231
Pre-tax income from continuing operations	4,849	1,449	2,025	441	8,765
Revenue year-to-year change	5.9 %	9.8 %	(2.4)%	(20.6)%	4.3 %
Pre-tax income year-to-year change	41.7 %	40.1 %	22.4 %	(1.8)%	33.6 %
Pre-tax income margin	20.7 %	8.1 %	14.3 %	57.0 %	15.6 %
2020*					
Revenue	$ 22,124	$ 16,257	$ 14,533	$ 975	$ 53,888
Pre-tax income from continuing operations**	3,423	1,034	1,654	449	6,561

* Recast to reflect segment change.

** Includes the impact of a $1.5 billion pre-tax charge for structural actions in the fourth quarter of 2020. The impact by segment was as follows: Software ($0.6 billion), Consulting ($0.4 billion) and Infrastructure ($0.4 billion). The impact to Financing was immaterial.

Reconciliations of IBM as Reported

($ in millions)

For the year ended December 31:	2022	2021 (1)	2020 (1)
Revenue			
Total reportable segments	$60,077	$56,231	$53,888
Other—divested businesses	318	785	904

Other revenue	135	335	387
Total revenue	$60,530	$57,350	$55,179

($ in millions)

For the year ended December 31:	2022	2021 [1]	2020 [1]
Pre-tax income from continuing operations			
Total reportable segments	$10,441	$ 8,765	$ 6,561 [2]
Amortization of acquired intangible assets	(1,747)	(1,838)	(1,832)
Acquisition-related charges	(18)	(43)	(13)
Non-operating retirement-related (costs)/income	(6,548)[3]	(1,282)	(1,073)
Kyndryl-related impacts [4]	(351)	118	—
Elimination of internal transactions	(10)	(7)	(28)
Other—divested businesses	91 [5]	(102)	(70)
Unallocated corporate amounts and other	(702)	(774)	(973)
Total pre-tax income from continuing operations	$ 1,156	$ 4,837	$ 2,572

[1] Recast to reflect segment change.
[2] Includes the impact of a $1.5 billion pre-tax charge for structural actions in the fourth quarter of 2020.
[3] Includes a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion. See note V, “Retirement-Related Benefits,” for additional information.
[4] Refer to note J, “Financial Assets & Liabilities,” for additional information.
[5] Includes a gain on the sale of the company's healthcare software assets. Refer to note F, "Acquisitions & Divestitures," for additional information.

Immaterial Items

Investment in Equity Alliances and Equity Alliances Gains/(Losses)

The investments in equity alliances and the resulting gains and (losses) from these investments that are attributable to the segments did not have a material effect on the financial position or the financial results of the segments.

Segment Assets and Other Items

Software assets are mainly goodwill, acquired intangible assets and accounts receivable. Consulting assets are primarily goodwill and accounts receivable. Infrastructure assets are primarily goodwill, plant, property and equipment, manufacturing inventory and accounts receivable. Financing assets are primarily financing receivables, and cash and marketable securities.

To ensure the efficient use of the company’s space and equipment, several segments may share leased or owned plant, property and equipment assets. Where assets are shared, landlord ownership of the assets is assigned to one segment and is not allocated to each user segment. This is consistent with the company’s management system and is reflected accordingly in the table below. In those cases, there will not be a precise correlation between segment pre-tax income and segment assets.

Depreciation expense and capital expenditures that are reported by each segment also are consistent with the landlord ownership basis of asset assignment.

Financing amounts for interest income reflect the income associated with Financing's external client transactions, as well as the income from investment in cash and marketable securities. Financing amounts for interest expense reflect the expense associated with intercompany loans and secured borrowings supporting Financing's external client transactions. These secured borrowings are included in note P, “Borrowings.” Intercompany financing activities are recorded to other (income) and expense and are reflected in segment pre-tax income.

Management System Segment View

($ in millions)

For the year ended December 31:	Software *	Consulting	Infrastructure	Financing	Total Segments
2022					
Assets	$ 57,186	$ 13,481	$ 12,243	$ 15,757	$ 98,667
Depreciation/amortization of intangibles**	968	289	1,403	14	2,674
Capital expenditures/investments in intangibles	446	33	853	27	1,359
Interest income	—	—	—	582	582
Interest expense	—	—	—	175	175
2021					
Assets	$ 58,420	$ 11,914	$ 11,766	$ 16,880	$ 98,980
Depreciation/amortization of intangibles**	983	250	1,399	49	2,681
Capital expenditures/investments in intangibles	559	55	792	33	1,439
Interest income	—	—	—	628	628
Interest expense	—	—	—	129	129
2020					
Assets	$ 57,436	$ 10,548	$ 12,378	$ 24,974	$ 105,336
Depreciation/amortization of intangibles**	1,007	207	1,419	120	2,753
Capital expenditures/investments in intangibles	538	26	1,093	41	1,699
Interest income	—	—	—	834	834
Interest expense	—	—	—	307	307

* Prior-year periods were recast to reflect segment change.
** Segment pre-tax income from continuing operations does not include the amortization of acquired intangible assets.

Reconciliations of IBM as Reported

($ in millions)

At December 31:	2022	2021 *	2020 *
Assets			
Total reportable segments	$ 98,667	$ 98,980	$105,336
Elimination of internal transactions	(1,062)	(1,608)	(4,686)
Other—divested businesses	100	1,109	1,376
Unallocated amounts			
Cash and marketable securities	8,138	6,222	12,463
Notes and accounts receivable	281	1,622	1,655
Deferred tax assets	6,078	7,158	8,175
Plant, other property and equipment	1,760	2,196	2,449
Operating right-of-use assets	1,586	1,945	2,368
Pension assets	8,236	9,848	7,557
Other	3,459	4,530	3,514
Total assets of discontinued operations	—	—	15,764
Total IBM consolidated assets	$127,243	$132,001	$155,971

* Recast to reflect segment change.

Major Clients

No single client represented 10 percent or more of the company's total revenue in 2022, 2021 or 2020.

Geographic Information

The following tables provide information for those countries that are 10 percent or more of the specific category.

Revenue*

($ in millions)

For the year ended December 31:	2022	2021	2020
United States	$25,098	$22,893	$22,258
Japan	5,453	5,648	5,680
Other countries	29,980	28,810	27,241
Total revenue	$60,530	$57,350	$55,179

* Revenues are attributed to countries based on the location of the client.

Plant and Other Property–Net

($ in millions)

At December 31:	2022	2021	2020
United States	$3,209	$3,375	$3,452
Other countries	2,100	2,293	2,656
Total*	$5,308	$5,668	$6,108

* Balances do not include rental machines.

Operating Right-of-Use Assets–Net

($ in millions)

At December 31:	2022	2021	2020
United States	$1,074	$1,148	$1,165
Japan	259	398	532
Other countries	1,545	1,676	1,870
Total	$2,878	$3,222	$3,566

Revenue by Classes of Similar Products or Services

The following table presents external revenue for similar classes of products or services within the company's reportable segments. Client solutions often include IBM software and systems and other suppliers' products if the client solution requires it. For each of the segments that include services, Software-as-a-Service, consulting, education, training and other product-related services are included as services. For each of these segments, software includes product license charges and ongoing subscriptions.

($ in millions)

For the year ended December 31:	2022	2021	2020
Software *			
Software	$21,374	$19,845	$18,771
Services	3,575	3,485	3,253
Systems	88	96	100
Consulting			

Services	$18,857	$17,563	$15,986
Software	170	173	183
Systems	80	108	89
Infrastructure			
Maintenance	$ 4,590	$ 4,743	$ 4,804
Servers	4,471	3,483 **	3,686 **
Services	2,653	2,616	2,656
Storage	1,989	1,919 **	1,824 **
Software	1,585	1,426	1,563
Financing			
Financing	$ 582	$ 628	$ 834
Used equipment sales	$ 64	$ 145	$ 140

* Prior-year periods were recast to reflect segment change.

** Recast to conform to 2022 presentation to present used equipment sales in servers and storage.

Acquisitions & Divestitures

Acquisitions & Divestitures	12 Months Ended Dec. 31, 2022

Acquisitions & Divestitures

Acquisitions & Divestitures

NOTE F. ACQUISITIONS & DIVESTITURES

Acquisitions

Purchase price consideration for all acquisitions was paid primarily in cash. All acquisitions, except otherwise stated, were for 100 percent of the acquired business and are reported in the Consolidated Statement of Cash Flows, net of acquired cash and cash equivalents.

2022

In 2022, the company completed eight acquisitions at an aggregate cost of $2,650 million. Each acquisition is expected to enhance the company's portfolio of products and services capabilities and further advance IBM's hybrid cloud and AI strategy.

Acquisition	Segment	Description of Acquired Business
First Quarter		
Envizi	Software	Data and analytics software provider for environmental performance management
Sentaca	Consulting	Telco consulting services and solutions provider specializing in automation, cloud migration, and future networks for telecommunications providers
Neudesic	Consulting	Application development and cloud computing services company
Second Quarter		
Randori	Software	Leading attack surface management (ASM) and cybersecurity provider
Databand.ai	Software	Proactive data observability platform that isolates data errors and issues to alert relevant stakeholders
Third Quarter		
Omnio	Software	Developer of software connectors used in the collection of raw data for various Industrial Internet of Things (IoT) applications
Fourth Quarter		
Dialexa	Consulting	Digital product engineering services firm
Octo	Consulting	IT modernization and digital transformation services provider exclusively serving the U.S. federal government

At December 31, 2022, the remaining cash to be remitted by the company related to certain 2022 acquisitions was $238 million, of which $139 million is expected to be paid in 2023 and the remaining amount is expected to be paid in 2024.

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of December 31, 2022.

($ in millions)

	Amortization Life (in Years)	Octo	Other Acquisitions
Current assets		$ 119	$ 87
Property, plant and equipment/noncurrent assets		13	7
Intangible assets			
Goodwill	N/A	826	1,062
Client relationships	7	370	204
Completed technology	4—7	30	90
Trademarks	2—3	15	10
Total assets acquired		$1,374	$ 1,460
Current liabilities		54	51
Noncurrent liabilities		57	22

Total liabilities assumed	$ 110	$ 73
Total purchase price	$1,263	$ 1,387

N/A–Not applicable

The goodwill generated is primarily attributable to the assembled workforce of the acquired businesses and the increased synergies expected to be achieved from the integration of the acquired businesses into the company's various integrated solutions and services neither of which qualifies as an amortizable intangible asset.

The valuation of the assets acquired and liabilities assumed is subject to revision. If additional information becomes available, the company may further revise the purchase price allocation as soon as practical, but no later than one year from the acquisition date; however, material changes are not expected.

Octo–The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.0 years. Goodwill of $706 million and $120 million was assigned to the Consulting and Software segments, respectively. It is expected that 24 percent of the goodwill will be deductible for tax purposes.

Other acquisitions–The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.7 years. Goodwill of $624 million and $438 million was assigned to the Consulting and Software segments, respectively. It is expected that 52 percent of the goodwill will be deductible for tax purposes.

The identified intangible assets will be amortized on a straight-line basis over their useful lives, which approximates the pattern that the assets' economic benefits are expected to be consumed over time.

2023 Transactions–In February 2023, the company acquired StepZen, Inc., developer of GraphQL to help build application programming interfaces (APIs) quickly and with less code. StepZen will be integrated into the Software segment. The financial terms related to the acquisition were not material. Additionally, in February 2023, the company signed a definitive agreement to acquire NS1, a leading provider of network automation SaaS solutions. Upon closing, NS1 will be integrated into the Software segment. The transaction is expected to close in the first half of 2023, subject to customary closing conditions, including regulatory clearance.

2021

In 2021, the company completed fifteen acquisitions at an aggregate cost of $3,341 million.

Acquisition	Segment	Description of Acquired Business
First Quarter		
Nordcloud	Consulting	Consulting company providing services in cloud implementation, application transformation and managed services
Taos Mountain, LLC (Taos)	Consulting	Leading cloud professional and managed services provider
StackRox	Software	Innovator in container and Kubernetes-native security
Second Quarter		
Turbonomic, Inc. (Turbonomic)	Software	Application Resource Management and Network Performance Management software provider
ECX Copy Data Management business from Catalogic Software, Inc.	Software	Smart data protection solution
Waeg	Consulting	Leading Salesforce consulting partner
myInvenio	Software	Process mining software company
Third Quarter		
VEVRE Software business from Volta, Inc.	Software	Cloud-native virtual routing engine
BoxBoat Technologies	Consulting	Premier DevOps consultancy and enterprise Kubernetes certified service provider
Bluetab Solutions Group	Consulting	Data solutions service provider
Fourth Quarter		
SXiQ Digital Pty Ltd	Consulting	Digital transformation services company specializing in cloud

		applications, cloud platforms and cloud cybersecurity
McD Tech Labs from McDonald’s	Software	Asset purchase to accelerate the development and deployment of McDonald’s Automated Order Taking (AOT) technology
ReaQta	Software	Provider of endpoint security solutions designed to leverage AI to automatically identify and manage threats
Adobe Workfront practice from Rego Consulting Corporation	Consulting	Work management software consulting for enterprise clients
Phlyt	Software	Cloud-native development consultancy

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of December 31, 2022. Net purchase price adjustments recorded in 2022 primarily related to deferred tax assets and liabilities.

($ in millions)

	Amortization Life (in Years)	Turbonomic	Other Acquisitions
Current assets		$ 115	$ 112
Property, plant and equipment/noncurrent assets		11	18
Intangible assets			
Goodwill	N/A	1,390	1,073
Client relationships	4—10	309	196
Completed technology	4—7	117	206
Trademarks	1—6	15	31
Total assets acquired		$ 1,957	$ 1,636
Current liabilities		73	68
Noncurrent liabilities		55	56
Total liabilities assumed		$ 128	$ 124
Total purchase price		$ 1,829	$ 1,512

N/A–Not applicable

The goodwill generated is primarily attributable to the assembled workforce of the acquired businesses and the increased synergies expected to be achieved from the integration of the acquired businesses into the company’s various integrated solutions and services neither of which qualifies as an amortizable intangible asset.

Turbonomic–The overall weighted-average useful life of the identified amortizable intangible assets acquired was 9.0 years. Goodwill of $1,325 million and $65 million was assigned to the Software and Consulting segments, respectively. It is expected that none of the goodwill will be deductible for tax purposes.

Other acquisitions–The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.6 years. Goodwill of $633 million and $440 million was assigned to the Consulting and Software segments, respectively. It is expected that nine percent of the goodwill will be deductible for tax purposes.

The identified intangible assets will be amortized on a straight-line basis over their useful lives, which approximates the pattern that the assets’ economic benefits are expected to be consumed over time.

2020

In 2020, the company completed seven acquisitions at an aggregate cost of $723 million.

Acquisition	Segment	Description of Acquired Business
First Quarter		
Stratoss Lifecycle Manager business (Stratoss) from Accanto Systems Oy	Software	Cloud native business designed to deliver web-scale levels of operational automation for the cloud-based networking world
Second Quarter		
Automated Security Assurance Platform business (ASAP) from Spanugo Inc.	Software	Cloud cybersecurity platform, integrated into the IBM public cloud to further meet the security demands of clients in highly regulated industries
Third Quarter		
WDG Soluções Em Sistemas E Automação De Processos LTDA (WDG Automation)	Software	Provider of robotic process automation

Fourth Quarter		
Instana	Software	Application performance monitoring and observability company which helps businesses better manage applications that span the hybrid cloud landscape
TruQua Enterprises, LLC (TruQua)	Consulting	IT services provider and SAP development partner
Expertus Technologies Inc. (Expertus)	Consulting	Provider of cloud solutions for the financial services industry
7Summits LLC (7Summits)	Consulting	Leading Salesforce partner that delivers transformative digital experiences across industries

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of December 31, 2020.

($ in millions)

	Amortization Life (in Years)	Allocated Amount
Current assets		$ 35
Property, plant and equipment/noncurrent assets		7
Intangible assets		
Goodwill	N/A	575
Client relationships	5—7	84
Completed technology	2—7	73
Trademarks	1—7	11
Total assets acquired		$ 784
Current liabilities		19
Noncurrent liabilities		41
Total liabilities assumed		$ 61
Total purchase price		$ 723

N/A—Not applicable

The goodwill generated is primarily attributable to the assembled workforce of the acquired businesses and the increased synergies expected to be achieved from the integration of the acquired businesses into the company's various integrated solutions and services neither of which qualifies as an amortizable intangible asset.

The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.8 years. These identified intangible assets will be amortized on a straight-line basis over their useful lives, which approximates the pattern that the assets' economic benefits are expected to be consumed over time. Goodwill of $362 million, $205 million and $8 million was assigned to the
Software, Consulting and Infrastructure segments, respectively. The goodwill recorded as a result of these acquisitions was not deductible for tax purposes.

Divestitures

2022

Healthcare Software Assets–In January 2022, IBM and Francisco Partners (Francisco) signed a definitive agreement in which Francisco would acquire IBM's healthcare data and analytics assets reported within Other–divested businesses for $1,065 million. Refer to note E, "Segments," for additional information. The assets included Health Insights, MarketScan, Clinical Development, Social Program Management, Micromedex, and imaging software offerings. In addition, IBM is providing Francisco with transition services including IT and other services. The closing completed for the U.S. and Canada on June 30, 2022 and subsequent closings were completed in most other countries during the second half of 2022. The company expects to close the remaining countries by the first half of 2023.

On June 30, 2022, the company received a cash payment of $1,065 million. The total pre-tax gain recognized on this transaction as of December 31, 2022 was $258 million and was recorded in other (income) and expense in the Consolidated Income Statement. Any pre-tax gains related to the subsequent wave closings are not expected to be material. The total gain on sale may change in the future due to changes in transaction estimates however, such changes are not expected to be material.

Other Divestitures–In the first quarter of 2022, the Infrastructure segment completed one divestiture. The financial terms related to this transaction were not material.

2021

Kyndryl–On November 3, 2021, the company completed the separation of Kyndryl. Refer to note C, "Separation of Kyndryl," for additional information.

Other Divestitures–In 2021, the company completed two divestitures reported in the Software segment and one divestiture reported in Other–divested businesses. In the third quarter of 2021, IBM completed the sale of the company's remaining OEM commercial financing capabilities reported within the Financing segment. The financial terms related to each of these transactions did not have a material impact to IBM's Consolidated Financial Statements.

2020

There were no divestitures completed during the year ended December 31, 2020.

Research, Development & Engineering	12 Months Ended Dec. 31, 2022
Research, Development & Engineering	
Research, Development & Engineering	**NOTE G. RESEARCH, DEVELOPMENT & ENGINEERING** RD&E expense was $6,567 million in 2022, $6,488 million in 2021 and $6,262 million in 2020. The company incurred total expense of $6,267 million, $6,216 million and $5,968 million in 2022, 2021 and 2020, respectively, for scientific research and the application of scientific advances to the development of new and improved products and their uses, as well as services and their application. Within these amounts, software-related expense was $3,971 million, $3,922 million and $3,682 million in 2022, 2021 and 2020, respectively. Expense for product-related engineering was $299 million, $272 million and $295 million in 2022, 2021 and 2020, respectively.

Taxes	12 Months Ended Dec. 31, 2022
Taxes	
Taxes	**NOTE H. TAXES**

($ in millions)

For the year ended December 31:	2022	2021	2020
Income/(loss) from continuing operations before income taxes			
U.S. operations	$(6,602)*	$(2,654)	$(2,349)
Non-U.S. operations	7,758	7,491	4,921
Total income from continuing operations before income taxes	$ 1,156	$ 4,837	$ 2,572

* Includes the impact of a one-time, non-cash pension settlement charge. Refer to note V, “Retirement-Related Benefits,” for additional information.

The income from continuing operations provision for/(benefit from) income taxes by geographic operations was as follows:

($ in millions)

For the year ended December 31:	2022	2021	2020
U.S. operations	$(2,272)	$ (969)	$ 1,913
Non-U.S. operations	1,645	1,093	(3,273)
Total continuing operations provision for/(benefit from) income taxes	$ (626)	$ 124	$(1,360)

The components of the income from continuing operations provision for/(benefit from) income taxes by taxing jurisdiction were as follows:

($ in millions)

For the year ended December 31:	2022	2021	2020
U.S. federal			
Current	$ 391	$ 374	$ 312
Deferred	(2,645)	(1,358)	1,102
	$(2,253)	$ (984)	$ 1,414
U.S. state and local			
Current	$ 184	$ 161	$ 345
Deferred	(486)	(370)	(358)
	$ (302)	$ (209)	$ (13)
Non-U.S.			
Current	$ 1,676	$ 1,342	$ 1,208
Deferred	252	(25)	(3,969)
	$ 1,929	$ 1,317	$(2,761)
Total continuing operations provision for/(benefit from) income taxes	$ (626)	$ 124	$(1,360)
Discontinued operations provision for/(benefit from) income taxes	$ 124	$ 714	$ 484
Total provision for/(benefit from) income taxes	$ (503)	$ 838	$ (876)

In addition to the total provision for/(benefit from) income taxes, the company also recorded a provision included in net income for social security, real estate, personal property and other taxes of approximately $2.8 billion in 2022. The total taxes included in net income was approximately $2.3 billion in 2022.

A reconciliation of the statutory U.S. federal tax rate to the company’s effective tax rate from continuing operations was as follows:

For the year ended December 31:	2022	2021	2020
Statutory rate	21 %	21 %	21 %
Tax differential on foreign income	(29)*	(10)	(31)
Intra-entity IP sale	—	—	(37)
Domestic incentives	(24)*	(5)	(9)
State and local	(21)*	(3)	0
Other	(1)*	0	3
Effective rate	(54)%	3 %	(53)%

* Includes the impacts of the pension settlement charge on tax differential on foreign income, domestic incentives, state and local, and other of (24) points, (20) points, (21) points, and (1) point, respectively.

Percentages rounded for disclosure purposes.

The significant components reflected within the tax rate reconciliation labeled “Tax differential on foreign income” include the effects of foreign subsidiaries’ earnings taxed at rates other than the U.S. statutory rate, U.S. taxes on foreign income and any net impacts of intercompany transactions. These items also reflect audit settlements or changes in the amount of unrecognized tax benefits associated with each of these items.

The continuing operations effective tax rate for 2022 was (54.2) percent compared to 2.6 percent in 2021. The current-year effective tax rate was primarily driven by the transfer of a portion of the Qualified PPP’s defined benefit pension obligations and related plan assets. Refer to note V, “Retirement-Related Benefits,” for additional information. The prior-year effective tax rate was primarily driven by tax benefits related to audit settlements in multiple jurisdictions. The 2020 effective tax rate was primarily driven by an intra-entity sale of certain of the company’s intellectual property which required the recognition of a deferred tax asset.

The effect of tax law changes on deferred tax assets and liabilities did not have a material impact on the company’s 2022 effective tax rate.

Deferred Tax Assets

($ in millions)

At December 31:	2022	2021
Retirement benefits	$ 1,954	$ 3,142
Leases	927	1,061
Share-based and other compensation	608	661
Domestic tax loss/credit carryforwards	1,798	1,619
Deferred income	633	630
Foreign tax loss/credit carryforwards	845	983
Bad debt, inventory and warranty reserves	383	390
Depreciation	247	249
Restructuring charges	101	216
Accruals	215	305
Intangible assets	2,879	2,929
Capitalized research and development	3,012	2,161
Other	1,157	1,306 *
Gross deferred tax assets	14,759	15,652
Less: valuation allowance	770	883
Net deferred tax assets	$13,989	$14,769

* Recast to include 2021 hedging losses in other.

Deferred Tax Liabilities

($ in millions)

At December 31:	2022	2021
Goodwill and intangible assets	$ 3,156	$ 3,306 *
GILTI deferred taxes	2,483	3,257
Leases and right-of-use assets	1,174	1,314
Depreciation	505	518
Retirement benefits	1,609	1,971
Deferred transition costs	56	42
Undistributed foreign earnings	87	131
Other	955	817
Gross deferred tax liabilities	$10,025	$11,356

* Recast to conform to 2022 presentation to include software development costs in goodwill and intangible assets.

For financial reporting purposes, the company had foreign and domestic loss carryforwards, the tax effect of which was $722 million, as well as foreign and domestic credit carryforwards of $1,921 million. Substantially all of these carryforwards are available for at least two years and the majority are available for 10 years or more.

The valuation allowances as of December 31, 2022, 2021 and 2020 were $770 million, $883 million and $850 million, respectively. The amounts principally apply to certain foreign and domestic loss carryforwards and credits. In the opinion of management, it is more likely than not that these assets will not be realized. However, to the extent that tax benefits related to these carryforwards are realized in the future, the reduction in the valuation allowance will reduce income tax expense.

The amount of unrecognized tax benefits at December 31, 2022 increased by $19 million in 2022 to $8,728 million. A reconciliation of the beginning and ending amount of unrecognized tax benefits was as follows:

($ in millions)

	2022	2021	2020
Balance at January 1	$8,709	$8,568	$7,146
Additions based on tax positions related to the current year	355	934	1,690

Additions for tax positions of prior years	174	247	159
Reductions for tax positions of prior years (including impacts due to a lapse of statute)	(470)	(688)	(408)
Settlements	(41)	(352)	(19)
Balance at December 31	$8,728	$8,709	$8,568

The additions to unrecognized tax benefits related to the current and prior years were primarily attributable to non-U.S. tax matters, including transfer pricing, as well as U.S. federal and state tax matters, credits and incentives. The settlements and reductions to unrecognized tax benefits for tax positions of prior years were primarily attributable to non-U.S. audits, U.S. federal and state tax matters, impacts due to lapse of statute of limitations and foreign currency translation adjustments.

The unrecognized tax benefits at December 31, 2022 of $8,728 million can be reduced by $537 million associated with timing adjustments, potential transfer pricing adjustments and state income taxes. The net amount of $8,191 million, if recognized, would favorably affect the company's effective tax rate. The net amounts at December 31, 2021 and 2020 were $8,163 million and $7,994 million, respectively.

Interest and penalties related to income tax liabilities are included in income tax expense. During the years ended December 31, 2022, 2021 and 2020, the company recognized $185 million, $125 million and $117 million, respectively, in interest expense and penalties. The company had $956 million and $935 million for the payment of interest and penalties accrued at December 31, 2022 and December 31, 2021, respectively.

Within the next 12 months, the company believes it is reasonably possible that the total amount of unrecognized tax benefits associated with certain positions may be reduced. The potential decrease in the amount of unrecognized tax benefits is associated with certain non-U.S. positions that are expected to be recognized due to a lapse in statute of limitations, as well as anticipated resolution of various non-U.S. audits. The company estimates that the unrecognized tax benefits at December 31, 2022 could be reduced by $168 million.

During the fourth quarter of 2020, the U.S. Internal Revenue Service (IRS) concluded its examination of the company's U.S. income tax returns for 2013 and 2014, which had a specific focus on certain cross-border transactions that occurred in 2013 and issued a final Revenue Agent's Report (RAR). The IRS' proposed adjustments relative to these cross-border transactions, if sustained, would result in additional taxable income of approximately $4.5 billion. The company strongly disagrees with the IRS on these specific matters and filed its IRS Appeals protest in the first quarter of 2021. In the third quarter of 2018, the IRS commenced its audit of the company's U.S. tax returns for 2015 and 2016. The company anticipates that this audit will be completed in 2023. In the fourth quarter of 2021, the IRS commenced its audit of the company's U.S. tax returns for 2017 and 2018. With respect to major U.S. state and foreign taxing jurisdictions, the company is generally no longer subject to tax examinations for years prior to 2015. The company is no longer subject to income tax examination of its U.S. federal tax return for years prior to 2013. The open years contain matters that could be subject to differing interpretations of applicable tax laws and regulations as it relates to the amount and/or timing of income, deductions, and tax credits. Although the outcome of tax audits is always uncertain, the company believes that adequate amounts of tax, interest and penalties have been provided for any adjustments that are expected to result for these years.

The company is involved in a number of income tax-related matters in India challenging tax assessments issued by the India Tax Authorities. As of December 31, 2022, the company had recorded $689 million as prepaid income taxes in India. A significant portion of this balance represents cash tax deposits paid over time to protect the company's right to appeal various income tax assessments made by the India Tax Authorities. Although the outcome of tax audits are always uncertain, the company believes that adequate amounts of tax, interest and penalties have been provided for any adjustments that are expected to result for these years.

Within consolidated retained earnings at December 31, 2022 were undistributed after-tax earnings from certain non-U.S. subsidiaries that were not indefinitely reinvested. At December 31, 2022, the company had a deferred tax liability of $87 million for the estimated taxes associated with the repatriation of these earnings. Undistributed earnings of approximately $384 million and other outside basis differences in foreign subsidiaries were indefinitely reinvested in foreign operations. Quantification of the deferred tax liability, if any, associated with indefinitely reinvested earnings and outside basis differences was not practicable.

Earnings Per Share	12 Months Ended Dec. 31, 2022
Earnings Per Share	
Earnings Per Share	

NOTE I. EARNINGS PER SHARE

The following table presents the computation of basic and diluted earnings per share of common stock.

($ in millions except per share amounts)

For the year ended December 31:	2022	2021	2020
Weighted-average number of shares on which earnings per share calculations are based			
Basic	902,664,190	895,990,771	890,348,679
Add—incremental shares under stock-based compensation plans	7,593,455	6,883,290	4,802,940
Add—incremental shares associated with contingently issuable shares	2,011,417	1,766,940	1,412,352
Assuming dilution	912,269,062	904,641,001	896,563,971
Income from continuing operations	$1,783	$4,712	$3,932
Income/(loss) from discontinued operations, net of tax	(143)	1,030	1,658
Net income on which basic earnings per share is calculated	$1,639	$5,743	$5,590
Income from continuing operations	$1,783	$4,712	$3,932
Net income applicable to contingently issuable shares	—	—	(2)
Income from continuing operations on which diluted earnings per share is calculated	$1,783	$4,712	$3,930
Income/(loss) from discontinued operations, net of tax, on which basic and diluted earnings per share is calculated	(143)	1,030	1,658
Net income on which diluted earnings per share is calculated	$1,639	$5,743	$5,588
Earnings/(loss) per share of common stock			
Assuming dilution			
Continuing operations	$ 1.95	$ 5.21	$ 4.38
Discontinued operations	(0.16)	1.14	1.85
Total	$ 1.80	$ 6.35	$ 6.23
Basic			
Continuing operations	$ 1.97	$ 5.26	$ 4.42
Discontinued operations	(0.16)	1.15	1.86
Total	$ 1.82	$ 6.41	$ 6.28

Weighted-average stock options to purchase 814,976 common shares in 2022, 980,505 common shares in 2021 and 1,417,665 common shares in 2020 were outstanding, but were not included in the computation of diluted earnings per share because the exercise price of the options was greater than the average market price of the common shares for the full year, and therefore, the effect would have been antidilutive.

Financial Assets & Liabilities	12 Months Ended Dec. 31, 2022
Financial Assets & Liabilities	
Financial Assets & Liabilities	

NOTE J. FINANCIAL ASSETS & LIABILITIES

Fair Value Measurements

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table presents the company's financial assets and financial liabilities that are measured at fair value on a recurring basis at December 31, 2022 and 2021.

($ in millions)

At December 31:	Fair Value Hierarchy Level	2022 Assets [8]	2022 Liabilities [9]	2021 Assets [8]	2021 Liabilities [9]
Cash equivalents [1]					
Time deposits and certificates of deposit [2]	2	$ 3,712	N/A	$ 2,502 [10]	N/A
Money market funds	1	306	N/A	263	N/A
Total cash equivalents		$ 4,018	N/A	$ 2,766	N/A
Equity investments [3]	1	—	N/A	0	N/A
Kyndryl common stock [4]	1	—	N/A	807	N/A
Debt securities–current [2][5]	2	852	N/A	600	N/A
Debt securities–noncurrent [2][6]	2,3	31	N/A	37	N/A
Derivatives designated as hedging instruments					
Interest rate contracts	2	3	336	12	—
Foreign exchange contracts	2	184	674	359	117
Derivatives not designated as hedging instruments					
Foreign exchange contracts	2	42	16	21	42
Equity contracts [7]	1,2	49	8	6	4
Total		$ 5,179	$1,034	$ 4,608	$ 162

[1] Included within cash and cash equivalents in the Consolidated Balance Sheet.

[2] Available-for-sale debt securities with carrying values that approximate fair value.

[3] Included within investments and sundry assets in the Consolidated Balance Sheet.

[4] Refer to "Kyndryl Common Stock" below for additional information.

[5] U.S. treasury bills and term deposits that are reported within marketable securities in the Consolidated Balance Sheet.

[6] Includes immaterial activity related to private company investments reported within investments and sundry assets in the Consolidated Balance Sheet.

[7] Level 1 includes immaterial amounts related to equity futures contracts.

[8] The gross balances of derivative assets contained within prepaid expenses and other current assets, and investments and sundry assets in the Consolidated Balance Sheet at December 31, 2022 were $271 million and $7 million, respectively, and at December 31, 2021 were $358 million and $40 million, respectively.

[9] The gross balances of derivative liabilities contained within other accrued expenses and liabilities, and other liabilities in the Consolidated Balance Sheet at December 31, 2022 were $546 million and $488 million, respectively, and at December 31, 2021 were $60 million and $103 million, respectively.

[10] Recast to conform to 2022 presentation.

N/A–Not applicable

Kyndryl Common Stock

On November 3, 2021, IBM completed the separation of Kyndryl and retained 19.9 percent of the shares of Kyndryl common stock with the intent to dispose of the shares within twelve months of the separation.

On May 18, 2022, the company borrowed an aggregate principal amount of $357 million under a short-term credit facility with a third-party financial institution, the proceeds of which were used to repay certain of the company's existing indebtedness. On May 23, 2022, the company completed a debt-for-equity exchange where 22.3 million shares of Kyndryl common stock, equal to half of the company's 19.9 percent retained interest (the Shares), were exchanged at a strike price of $13.95 per share to extinguish $311 million of the company's indebtedness under the short-term credit facility (the May 2022 Exchange). The remaining portion of the short-term credit facility was repaid with $46 million of cash.

In connection with the May 2022 Exchange, the company entered into a cash-settled swap with the lender of the short-term credit facility as the counterparty that maintained IBM's continued economic exposure in the Shares. As a result of the swap, the transfer of the Shares pursuant to the May 2022 Exchange did not qualify as a true sale, and therefore the Shares and debt remained on the company's Consolidated Balance Sheet. Upon settlement of the swap, which occurred on November 2, 2022, IBM paid the lender $83 million, which was derived from the difference between the volume-weighted average price (VWAP) of the Kyndryl shares over the outstanding term of the swap and the strike price of $13.95 per share. The realized loss of $83 million was reflected in other (income) and expense within the company's Consolidated Income Statement for the year ended December 31, 2022. In addition, both the Shares and debt associated with the May 2022 Exchange were entirely derecognized from the company's Consolidated Balance Sheet in the fourth quarter of 2022 upon settlement of the swap. The debt-for-equity exchange associated with the May 2022 Exchange is reflected as a non-cash financing activity for purposes of the company's Consolidated Statement of Cash Flows for the year ended December 31, 2022.

On August 5, 2022, the company borrowed an aggregate principal amount of $300 million under a short-term credit facility with a third-party financial institution, the proceeds of which were used to repay certain of the company's existing indebtedness. On August 11, 2022, the company completed a debt-for-equity exchange through the transfer of the other 22.3 million shares of Kyndryl common stock to extinguish $229 million of the company's indebtedness under the short-term credit facility (the August 2022 Exchange). The remaining portion of the short-term credit facility was repaid with $71 million of cash. The debt-for-equity exchange associated with the August 2022 Exchange is a non-cash financing activity for purposes of the company's Consolidated Statement of Cash Flows for the year ended December 31, 2022.

At December 31, 2022, the company no longer held an ownership interest in Kyndryl. The Kyndryl common stock of $807 million at December 31, 2021 was included within prepaid expenses and other current assets in the Consolidated Balance Sheet. For the year ended December 31, 2022, the company recognized a total realized loss of $351 million, including $267 million on the Kyndryl shares and $83 million on the swap, compared to an unrealized gain of $126 million on the Kyndryl shares for the year ended December 31, 2021 which is reflected in other (income) and expense in the Consolidated Income Statement.

Financial Assets and Liabilities Not Measured at Fair Value

Short-Term Receivables and Payables

Short-term receivables (excluding the current portion of long-term receivables) and other investments are financial assets with carrying values that approximate fair value. Accounts payable, other accrued expenses and short-term debt (excluding the current portion of long-term debt and including short-term finance lease liabilities) are financial liabilities with carrying values that approximate fair value. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy, except for short-term debt which would be classified as Level 2.

Loans and Long-Term Receivables

Fair values are based on discounted future cash flows using current interest rates offered for similar loans to clients with similar credit ratings for the same remaining maturities. At December 31, 2022 and 2021, the difference between the carrying amount and estimated fair value for loans and long-term receivables was immaterial. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy.

Long-Term Debt

Fair value of publicly traded long-term debt is based on quoted market prices for the identical liability when traded as an asset in an active market. For other long-term debt (including long-term finance lease liabilities) for which a quoted market price is not available, an expected present value technique that uses rates currently available to the company for debt with similar terms and remaining maturities is used to estimate fair value. The carrying amount of long-term debt was $46,189 million and $44,917 million, and the estimated fair value was $42,514 million and $49,465 million at December 31, 2022 and 2021, respectively. If measured at fair value in the financial statements, long-term debt (including the current portion) would be classified as Level 2 in the fair value hierarchy.

Inventory	12 Months Ended Dec. 31, 2022
Inventory	
Inventory	**NOTE K. INVENTORY**

($ in millions)

At December 31:	2022	2021
Finished goods	$ 158	$ 208
Work in process and raw materials	1,394	1,442
Total	$1,552	$1,649

Financing Receivables

[Financing Receivables](#)

[Financing Receivables](#)

12 Months Ended Dec. 31, 2022

NOTE L. FINANCING RECEIVABLES

Financing receivables primarily consist of client loan and installment payment receivables (loans), investment in sales-type and direct financing leases (collectively referred to as client financing receivables) and commercial financing receivables. Loans are provided primarily to clients to finance the purchase of hardware, software and services. Payment terms on these financing arrangements are for terms up to seven years. Investment in sales-type and direct financing leases relate principally to the company's Infrastructure products and are for terms ranging generally from two to six years. Commercial financing receivables, which consist of both held-for-investment and held-for-sale receivables, relate primarily to working capital financing for dealers and remarketers of IBM products. Payment terms for working capital financing generally range from 30 to 90 days.

A summary of the components of the company's financing receivables is presented as follows:

($ in millions)

At December 31, 2022:	Client Financing Receivables: Client Loan and Installment Payment Receivables (Loans)	Client Financing Receivables: Investment in Sales-Type and Direct Financing Leases	Commercial Financing Receivables: Held for Investment	Commercial Financing Receivables: Held for Sale *	Total
Financing receivables, gross	$ 8,875	$ 4,023	$ 299	$ 939	$14,136
Unearned income	(439)	(351)	—	—	(790)
Unguaranteed residual value	—	422	—	—	422
Amortized cost	$ 8,437	$ 4,094	$ 299	$ 939	$13,769
Allowance for credit losses	(108)	(60)	(5)	—	(173)
Total financing receivables, net	$ 8,329	$ 4,034	$ 293	$ 939	$13,596
Current portion	$ 5,073	$ 1,485	$ 293	$ 939	$ 7,790
Noncurrent portion	$ 3,256	$ 2,549	$ —	$ —	$ 5,806

($ in millions)

At December 31, 2021:	Client Financing Receivables: Client Loan and Installment Payment Receivables (Loans)	Client Financing Receivables: Investment in Sales-Type and Direct Financing Leases	Commercial Financing Receivables: Held for Investment	Commercial Financing Receivables: Held for Sale *	Total
Financing receivables, gross	$ 9,303	$ 3,336	$ 450	$ 793	$13,881
Unearned income	(353)	(223)	—	—	(576)
Unguaranteed residual value	—	335	—	—	335
Amortized cost	$ 8,949	$ 3,448	$ 450	$ 793	$13,640
Allowance for credit losses	(131)	(64)	(6)	—	(201)
Total financing receivables, net	$ 8,818	$ 3,384	$ 444	$ 793	$13,439
Current portion	$ 5,371	$ 1,406	$ 444	$ 793	$ 8,014
Noncurrent portion	$ 3,447	$ 1,978	$ —	$ —	$ 5,425

* The carrying value of the receivables classified as held for sale approximates fair value.

The company has a long-standing practice of taking mitigation actions, in certain circumstances, to transfer credit risk to third parties. These actions may include credit insurance, financial guarantees, nonrecourse secured borrowings, transfers of receivables recorded as true sales in accordance with accounting guidance or sales of equipment under operating lease. Sale of receivables arrangements are also utilized in the normal course of business as part of the company's cash and liquidity management.

Financing receivables pledged as collateral for secured borrowings were $349 million and $408 million at December 31, 2022 and 2021, respectively. These borrowings are included in note P, "Borrowings."

Transfer of Financial Assets

The company has an existing agreement with a third-party investor to sell IBM short-term commercial financing receivables on a revolving basis. The company has expanded this agreement to other countries and geographies since commencement in the U.S. and Canada in 2020. In addition, the company enters into agreements with third-party financial institutions to sell certain of its client financing receivables, including both loan and lease receivables, for cash proceeds. In 2022, sales of client financing receivables were largely focused on credit mitigation. During 2021, sales of client financing receivables were utilized as part of the company's cash and liquidity management as well as for credit mitigation.

The following table presents the total amount of commercial and client financing receivables transferred.

($ in millions)

For the year ended December 31:	2022	2021
Commercial financing receivables		
Receivables transferred during the period	$9,029	$7,359
Receivables uncollected at end of period*	$1,561	$1,653
Client financing receivables		
Lease receivables	$ 15	$ 819
Loan receivables	2	2,224
Total client financing receivables transferred	$ 17	$3,043

* Of the total amount of commercial financing receivables sold and derecognized from the Consolidated Balance Sheet, the amounts presented remained uncollected from business partners as of December 31, 2022 and 2021.

The transfer of these receivables qualified as true sales and therefore reduced financing receivables. The cash proceeds from the sales are included in cash flows from operating activities. The impacts to the Consolidated Income Statement including fees and net loss associated with the transfer of commercial financing receivables were $62 million for the year ended December 31, 2022. The fees and net loss recorded in 2021 associated with the transfer of client and commercial financing receivables were not material.

Financing Receivables by Portfolio Segment

The following tables present the amortized cost basis for client financing receivables at December 31, 2022 and 2021, further segmented by three classes: Americas, Europe/Middle East/Africa (EMEA) and Asia Pacific. The commercial financing receivables portfolio segment is excluded from the tables in the sections below as the receivables are short term in nature and the current estimated risk of loss and resulting impact to the company's financial results are not material.

($ in millions)

At December 31, 2022:	Americas	EMEA	Asia Pacific	Total
Amortized cost	$7,281	$3,546	$ 1,704	$12,531
Allowance for credit losses				
Beginning balance at January 1, 2022	$ 111	$ 61	$ 23	$ 195
Write-offs	(20)	(3)	(2)	(25)
Recoveries	1	0	4	5
Additions/(releases)	(5)	6	(4)	(3)
Other*	2	(5)	(2)	(4)
Ending balance at December 31, 2022	$ 88	$ 60	$ 20	$ 168

($ in millions)

At December 31, 2021:	Americas	EMEA	Asia Pacific	Total
Amortized cost	$6,573	$3,793	$ 2,031	$12,397
Allowance for credit losses				
Beginning balance at January 1, 2021	$ 141	$ 77	$ 37	$ 255
Write-offs	(8)	(2)	(7)	(17)
Recoveries	0	0	1	1
Additions/(releases)	(19)	(11)	(7)	(38)
Other*	(3)	(3)	0	(7)
Ending balance at December 31, 2021	$ 111	$ 61	$ 23	$ 195

* Primarily represents translation adjustments.

When determining the allowances, financing receivables are evaluated either on an individual or a collective basis. For the company's policy on determining allowances for credit losses, refer to note A, "Significant Accounting Policies."

Past Due Financing Receivables

The company summarizes information about the amortized cost basis for client financing receivables, including amortized cost aged over 90 days and still accruing, billed invoices aged over 90 days and still accruing, and amortized cost not accruing.

($ in millions)

At December 31, 2022:	Total Amortized Cost	Amortized Cost > 90 Days *	Amortized Cost > 90 Days and Accruing *	Billed Invoices > 90 Days and Accruing	Amortized Cost Not Accruing **
Americas	$ 7,281	$272	$ 198	$ 22	$ 74
EMEA	3,546	52	8	1	46
Asia Pacific	1,704	20	3	1	17
Total client financing receivables	$ 12,531	$344	$ 208	$ 23	$137

($ in millions)

	Total	Amortized	Amortized Cost	Billed Invoices	Amortized Cost

At December 31, 2021:	Amortized Cost	Cost > 90 Days *	> 90 Days and Accruing *	> 90 Days and Accruing	Not Accruing **
Americas	$ 6,573	$188	$ 100	$ 6	$ 90
EMEA	3,793	99	7	2	95
Asia Pacific	2,031	25	5	2	20
Total client financing receivables	$12,397	$312	$ 112	$ 10	$205

* At a contract level, which includes total billed and unbilled amounts for financing receivables aged greater than 90 days.

** Of the amortized cost not accruing, there was a related allowance of $122 million and $153 million at December 31, 2022 and 2021, respectively. Financing income recognized on these receivables was immaterial for the years ended December 31, 2022 and 2021, respectively.

Credit Quality Indicators

The company's credit quality indicators, which are based on rating agency data, publicly available information and information provided by customers, are reviewed periodically based on the relative level of risk. The resulting indicators are a numerical rating system that maps to Moody's Investors Service credit ratings as shown below. The company uses information provided by Moody's, where available, as one of many inputs in its determination of customer credit ratings. The credit quality of the customer is evaluated based on these indicators and is assigned the same risk rating whether the receivable is a lease or a loan.

The following tables present the amortized cost basis for client financing receivables by credit quality indicator at December 31, 2022 and 2021, respectively. Receivables with a credit quality indicator ranging from Aaa to Baa3 are considered investment grade. All others are considered non-investment grade. The credit quality indicators reflect mitigating credit enhancement actions taken by customers which reduce the risk to IBM.

($ in millions)

	Americas		EMEA		Asia Pacific	
At December 31, 2022:	**Aaa - Baa3**	**Ba1 - D**	**Aaa - Baa3**	**Ba1 - D**	**Aaa - Baa3**	**Ba1 - D**
Vintage year						
2022	$ 3,316	$ 1,097	$ 1,447	$ 704	$ 799	$ 96
2021	1,197	323	451	159	203	65
2020	559	217	258	158	210	49
2019	251	91	161	99	127	22
2018	128	26	42	16	84	21
2017 and prior	32	45	14	38	12	17
Total	$ 5,482	$ 1,800	$ 2,373	$ 1,173	$ 1,434	$269

($ in millions)

	Americas		EMEA		Asia Pacific	
At December 31, 2021:	**Aaa - Baa3**	**Ba1 - D**	**Aaa - Baa3**	**Ba1 - D**	**Aaa - Baa3**	**Ba1 - D**
Vintage year						
2021	$ 2,556	$ 1,147	$ 1,181	$ 778	$ 565	$226
2020	1,013	392	506	342	381	86
2019	544	236	287	291	297	51
2018	338	117	189	85	211	64
2017	108	50	15	52	74	17
2016 and prior	20	53	21	46	38	20
Total	$ 4,579	$ 1,994	$ 2,198	$ 1,595	$ 1,567	$464

Troubled Debt Restructurings

The company did not have any significant troubled debt restructurings for the years ended December 31, 2022 and 2021.

Property, Plant & Equipment	12 Months Ended Dec. 31, 2022

Property, Plant & Equipment

Property, Plant & Equipment

NOTE M. PROPERTY, PLANT & EQUIPMENT

($ in millions)

At December 31:	2022	2021
Land and land improvements	$ 213	$ 224
Buildings and building and leasehold improvements	5,678	6,049
Information technology equipment	9,643	10,589 *
Production, engineering, office and other equipment	3,161	3,222
Total—gross	18,695	20,085 *
Less: Accumulated depreciation	13,361	14,390 *
Total—net	$ 5,334	$ 5,694

* Recast to conform to 2022 presentation to present rental machines within information technology equipment.

Leases	12 Months Ended Dec. 31, 2022

Leases

Leases

NOTE N. LEASES

Accounting for Leases as a Lessee

The following table presents the various components of lease costs.

($ in millions)

For the year ended December 31:	2022	2021	2020
Finance lease cost	$ 67	$ 52	$ 35
Operating lease cost	1,050	1,126	1,181
Short-term lease cost	7	21	28
Variable lease cost	262	336	343
Sublease income	(72)	(46)	(28)
Total lease cost	$1,315	$1,489	$1,558

The company recorded net gains on sale and leaseback transactions of $41 million and $7 million for the years ended December 31, 2022 and 2021, respectively. The company had no sale and leaseback transactions in 2020.

The following table presents supplemental information relating to the cash flows arising from lease transactions. Cash payments related to variable lease costs and short-term leases are not included in the measurement of operating and finance lease liabilities, and, as such, are excluded from the amounts below.

($ in millions)

For the year ended December 31:	2022	2021	2020
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash outflows from finance leases	$ 9	$ 8	$ 8
Financing cash outflows from finance leases	55	42	25
Operating cash outflows from operating leases	1,020	1,135	1,212
ROU assets obtained in exchange for new finance lease liabilities*	196	46	50
ROU assets obtained in exchange for new operating lease liabilities*	705	779	785

* Includes the impact of currency.

The following table presents the weighted-average lease term and discount rate for finance and operating leases.

At December 31:	2022	2021
Finance leases		
Weighted-average remaining lease term	3.7 yrs.	4.1 yrs.
Weighted-average discount rate	3.57 %	0.88 %
Operating leases		
Weighted-average remaining lease term	4.5 yrs.	4.5 yrs.
Weighted-average discount rate	3.77 %	3.01 %

The following table presents a maturity analysis of expected undiscounted cash flows for operating and finance leases on an annual basis for the next five years and thereafter.

($ in millions)

	2023	2024	2025	2026	2027	Thereafter	Imputed Interest *	Total **
Finance leases	$ 88	$ 74	$ 54	$ 24	$ 22	$ 19	$ (43)	$ 239
Operating leases	960	788	555	430	285	313	(267)	3,064

* Imputed interest represents the difference between undiscounted cash flows and discounted cash flows.

** The company entered into lease agreements for certain facilities and equipment with payments totaling approximately $691 million that have not yet commenced as of December 31, 2022, and therefore are not included in this table.

The following table presents information on the company's finance leases recognized in the Consolidated Balance Sheet.

($ in millions)

At December 31:	2022	2021
ROU Assets—Property, plant and equipment	$223	$ 86
Lease Liabilities		
Short-term debt	75	36

Long-term debt	164	63

Accounting for Leases as a Lessor

The following table presents amounts included in the Consolidated Income Statement related to lessor activity.

($ in millions)

For the year ended December 31:	2022	2021	2020
Lease income—sales-type and direct financing leases			
Sales-type lease selling price	$1,636	$1,355	$1,321
Less: Carrying value of underlying assets*	(385)	(300)	(410)
Gross profit	1,251	1,055	911
Interest income on lease receivables	200	179	249
Total sales-type and direct financing lease income	1,451	1,234	1,160
Lease income—operating leases	116	169	255
Variable lease income	87	120	115
Total lease income	$1,653	$1,523	$1,530

* Excludes unguaranteed residual value.

Sales-Type and Direct Financing Leases

At December 31, 2022 and 2021, the unguaranteed residual values of sales-type and direct financing leases were $422 million and $335 million, respectively. Refer to note L, "Financing Receivables," for additional information on the company's net investment in leases.

For the years ended December 31, 2022 and 2021, impairment of residual values was immaterial.

The following table presents a maturity analysis of the lease payments due to IBM on sales-type and direct financing leases over the next five years and thereafter, as well as a reconciliation of the undiscounted cash flows to the financing receivables recognized in the Consolidated Balance Sheet at December 31, 2022.

($ in millions)

	Total
2023	$1,692
2024	1,173
2025	738
2026	330
2027	87
Thereafter	3
Total undiscounted cash flows	$4,023
Present value of lease payments (recognized as financing receivables)	3,672 *
Difference between undiscounted cash flows and discounted cash flows	$ 351

* The present value of the lease payments will not equal the financing receivables balances in the Consolidated Balance Sheet due to certain items including IDCs, allowance for credit losses and residual values, which are included in the financing receivable balance, but are not included in the future lease payments.

Intangible Assets Including Goodwill	12 Months Ended Dec. 31, 2022

Intangible Assets Including Goodwill

Intangible Assets Including Goodwill

NOTE O. INTANGIBLE ASSETS INCLUDING GOODWILL

Intangible Assets

The following table presents the company's intangible asset balances by major asset class.

($ in millions)

At December 31, 2022:	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount *
Intangible asset class			
Capitalized software	$ 1,650	$ (705)	$ 945
Client relationships	8,559	(2,951)	5,608
Completed technology	5,220	(2,045)	3,175
Patents/trademarks	2,140	(688)	1,452
Other**	19	(15)	4
Total	$ 17,588	$(6,404)	$11,184

* Includes a decrease in net intangible asset balance of $198 million due to foreign currency translation.

** Other intangibles are primarily acquired proprietary and nonproprietary business processes, methodologies and systems.

($ in millions)

At December 31, 2021:	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount *
Intangible asset class			
Capitalized software	$ 1,696	$ (751)	$ 945
Client relationships	9,021	(2,889)	6,132
Completed technology	6,074	(2,259)	3,815
Patents/trademarks	2,196	(586)	1,610
Other**	44	(35)	9
Total	$ 19,031	$(6,520)	$12,511

* Includes a decrease in net intangible asset balance of $221 million due to foreign currency translation.

** Other intangibles are primarily acquired proprietary and nonproprietary business processes, methodologies and systems.

There was no impairment of intangible assets recorded in 2022 and 2021. The net carrying amount of intangible assets decreased $1,327 million during the year ended December 31, 2022, primarily due to intangible asset amortization, partially offset by additions of acquired intangibles and capitalized software. The aggregate intangible amortization expense was $2,397 million and $2,506 million for the years ended December 31, 2022 and 2021, respectively. In addition, in 2022 and 2021, respectively, the company retired $1,301 million and $904 million of fully amortized intangible assets, impacting both the gross carrying amount and accumulated amortization by this amount. The company also derecognized intangible assets with a gross carrying amount of $1,313 million and $1,149 million of accumulated amortization as part of the divestiture of its healthcare software assets on June 30, 2022.

The future amortization expense relating to intangible assets currently recorded in the Consolidated Balance Sheet is estimated to be the following at December 31, 2022:

($ in millions)	Capitalized Software	Acquired Intangibles	Total
2023	$514	$1,571	$2,085
2024	328	1,554	1,881
2025	103	1,535	1,639
2026	0	1,512	1,512
2027	—	1,493	1,493
Thereafter	—	2,574	2,574

Goodwill

The changes in the goodwill balances by reportable segment for the years ended December 31, 2022 and 2021 are as follows:

($ in millions)

	Purchase	Foreign Currency Translation

Segment	Balance at January 1, 2022	Goodwill Additions	Price Adjustments	Divestitures	and Other Adjustments *	Balance at December 31, 2022
Software	$ 43,966	$ 568	$ (118)	$ —	$ (760)	$ 43,657
Consulting	6,797	1,366	(42)	—	(192)	7,928
Infrastructure	4,396	—	—	(1)	(32)	4,363
Other**	484	—	—	(484)	—	—
Total	$ 55,643	$1,934	$ (159)	$ (485)	$ (984)	$ 55,949

* Primarily driven by foreign currency translation.

** The company derecognized $484 million of goodwill related to the divestiture of its healthcare software assets. Refer to note F, “Acquisitions & Divestitures,” for additional information.

($ in millions)

Segment	Balance at January 1, 2021	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments *	Balance at December 31, 2021
Software**	$ 42,665	$1,836	$ 23	$ (13)	$ (545)	$ 43,966
Consulting	6,145	713	(21)	—	(40)	6,797
Infrastructure	4,436	—	0	—	(39)	4,396
Other**	520	—	-	(37)	1	484
Total	$ 53,765	$2,549	$ 2	$ (50)	$ (623)	$ 55,643

* Primarily driven by foreign currency translation.

** Recast to conform to 2022 presentation.

There were no goodwill impairment losses recorded during 2022 or 2021 and the company has no accumulated impairment losses.

Purchase price adjustments recorded in 2022 and 2021 were related to acquisitions that were still subject to the measurement period that ends at the earlier of 12 months from the acquisition date or when information becomes available. Net purchase price adjustments recorded in 2022 primarily related to deferred tax assets and liabilities associated with the Turbonomic acquisition. Net purchase price adjustments recorded in 2021 were not material.

Borrowings

Borrowings	12 Months Ended Dec. 31, 2022

Borrowings

Borrowings

NOTE P. BORROWINGS

Short-Term Debt

($ in millions)

At December 31:	2022	2021
Short-term loans	$ 8	$ 22
Long-term debt—current maturities	4,751	6,764
Total	$4,760	$6,787

The weighted-average interest rate for short-term loans was 7.6 percent and 6.7 percent at December 31, 2022 and 2021, respectively.

Long-Term Debt

Pre-Swap Borrowing

($ in millions)

At December 31:	Maturities	2022	2021
U.S. dollar debt (weighted-average interest rate at December 31, 2022):*			
2.6%	2022	$ —	$ 5,673
3.4%	2023	1,529	1,573
3.3%	2024	5,009	5,016
5.1%	2025	1,603	608
3.3%	2026	4,351	4,356
3.1%	2027	3,620	2,221
6.5%	2028	313	313
3.5%	2029	3,250	3,250
2.0%	2030	1,350	1,350
4.4%	2032	1,850	600
8.0%	2038	83	83
4.5%	2039	2,745	2,745
2.9%	2040	650	650
4.0%	2042	1,107	1,107
7.0%	2045	27	27
4.7%	2046	650	650
4.3%	2049	3,000	3,000
3.0%	2050	750	750
4.2%	2052	1,400	—
7.1%	2096	316	316
		$33,605	$ 34,290
Other currencies (weighted-average interest rate at December 31, 2022, in parentheses):*			
Euro (1.1%)	2023-2040	$17,087	$ 15,903
Pound sterling	2022	—	406
Japanese yen (0.3%)	2024-2026	694	1,263
Other (16.0%)	2023-2026	361	378
		$51,747	$ 52,240
Finance lease obligations (3.5%)	2023-2030	239	99
		$51,986	$ 52,339
Less: net unamortized discount		835	839
Less: net unamortized debt issuance costs		138	130
Add: fair value adjustment**		(73)	311
		$50,940	$ 51,681
Less: current maturities		4,751	6,764
Total		$46,189	$ 44,917

* Includes notes, debentures, bank loans and secured borrowings.

** The portion of the company's fixed-rate debt obligations that is hedged is reflected in the Consolidated Balance Sheet as an amount equal to the sum of the debt's carrying value and a fair value adjustment representing changes in the fair value of the hedged debt obligations attributable to movements in benchmark interest rates.

The company's indenture governing its debt securities and its various credit facilities each contain significant covenants which obligate the company to promptly pay principal and interest, limit the aggregate amount of secured indebtedness and sale and leaseback transactions to 10 percent of the company's consolidated net tangible assets, and restrict the company's ability to merge or consolidate unless certain conditions are met. The credit facilities also include a covenant on the company's consolidated net interest expense ratio, which cannot be less than 2.20 to 1.0, as well as a cross default provision with respect to other defaulted indebtedness of at least $500 million.

The company is in compliance with all of its debt covenants and provides periodic certifications to its lenders. The failure to comply with its debt covenants could constitute an event of default with respect to the debt to which such provisions apply. If certain events of default were to occur, the principal and interest on the debt to which such event of default applied would become immediately due and payable.

In the first quarter of 2021, IBM Credit LLC early redeemed all of its outstanding fixed-rate debt in the aggregate amount of $1.75 billion with maturity dates ranging from 2021 to 2023 and deregistered with the U.S. Securities and Exchange Commission. The notes were redeemed at a price equal to 100 percent of the aggregate principal plus a make-whole premium and accrued interest. The company incurred a loss of approximately $22 million upon redemption that was recorded in other (income) and expense in the Consolidated Income Statement.

In the first quarter of 2022, the company issued $2.3 billion of Euro fixed-rate notes in tranches with maturities ranging from 8 to 12 years and coupons ranging from 0.875 to 1.25 percent, and $1.8 billion of U.S. dollar fixed-rate notes in tranches with maturities ranging from 5
to 30 years and coupons ranging from 2.20 to 3.43 percent. In the third quarter of 2022, the company issued $3.25 billion of U.S. dollar fixed-rate notes in tranches with maturities ranging from 3 to 30 years and coupons ranging from 4.00 to 4.90 percent.

Post-Swap Borrowing (Long-Term Debt, Including Current Portion)

($ in millions)

	2022		2021	
At December 31:	**Amount**	**Weighted-Average Interest Rate**	**Amount**	**Weighted-Average Interest Rate**
Fixed-rate debt	$43,898	2.7 %	$49,976	2.8 %
Floating-rate debt*	7,042	5.9 %	1,705	2.6 %
Total	$50,940		$51,681	

* Includes $6,525 million and $425 million in 2022 and 2021, respectively, of notional interest-rate swaps that effectively convert fixed-rate long-term debt into floating-rate debt. Refer to note T, "Derivative Financial Instruments," for additional information.

Pre-swap annual contractual obligations of long-term debt outstanding at December 31, 2022, are as follows:

($ in millions)

	Total
2023	$ 4,754
2024	6,367
2025	4,875
2026	4,700
2027	4,705
Thereafter	26,585
Total	$51,986

Interest on Debt

($ in millions)

For the year ended December 31:	2022	2021	2020
Cost of financing	$ 346	$ 392	$ 451
Interest expense	1,216	1,155	1,288
Interest capitalized	5	3	5
Total interest paid and accrued	$1,566	$1,550	$1,743

Refer to the related discussion in note E, "Segments," for interest expense of the Financing segment. Refer to note T, "Derivative Financial Instruments," for a discussion of the use of foreign currency denominated debt designated as a hedge of net investment, as well as a discussion of the use of currency and interest-rate swaps in the company's debt risk management program.

Lines of Credit

On June 30, 2022, the company amended its existing $2.5 billion Three-Year Credit Agreement and $7.5 billion Five-Year Credit Agreement (the Credit Agreements) to extend the maturity dates to June 20, 2025 and June 22, 2027, respectively, and to replace the London Interbank Offered Rate (LIBOR) interest rate provisions with customary provisions based on the Secured Overnight Financing Rate (SOFR). The Credit Agreements permit the company and its subsidiary borrowers to borrow up to $10 billion on a revolving basis. The total expense recorded by the company related to these agreements was $11 million, $12 million, and $12 million in 2022, 2021, and 2020, respectively. Subject to certain conditions stated in the Credit Agreements, the borrower may borrow, prepay and re-borrow amounts under the Credit Agreements at any time during the term of such agreements. Funds borrowed may be used for the general corporate purposes of the borrower.

Interest rates on borrowings under the Credit Agreements will be based on prevailing market interest rates, as further described in the Credit Agreements. The Credit Agreements contain customary representations and warranties, covenants, events of default, and indemnification provisions. The company believes that circumstances that might give rise to breach of these covenants or an event of default, as specified in the Credit Agreements, are remote. As of December 31, 2022, there were no borrowings by the company under the Credit Agreements.

The company also has other committed lines of credit in some of the geographies which are not significant in the aggregate. Interest rates and other terms of borrowing under these lines of credit vary from country to country, depending on local market conditions. As of December 31, 2022, there were no material borrowings by the company under these credit facilities.

Other Liabilities

12 Months Ended
Dec. 31, 2022

Other Liabilities

Other Liabilities

NOTE Q. OTHER LIABILITIES

($ in millions)

At December 31:	2022	2021
Income tax reserves*	$ 6,404	$ 6,179
Excess 401(k) Plus Plan	1,307	1,686
Disability benefits	303	359
Derivative liabilities	488	103
Workforce reductions	524	752
Deferred taxes	2,292	3,956
Other taxes payable	90	72
Environmental accruals	243	224
Warranty accruals	36	29
Asset retirement obligations	82	92
Acquisition related	152	218
Divestiture related	49	47
Other	273	278
Total	$12,243	$13,996

* Refer to note H, “Taxes,” for additional information.

In response to changing business needs, the company periodically takes workforce reduction actions to improve productivity, cost competitiveness and to rebalance skills. The noncurrent contractually obligated future payments associated with these activities are reflected in the workforce reductions caption in the previous table. The noncurrent liabilities are workforce accruals primarily related to terminated employees who are no longer working for the company and who were granted annual payments to supplement their incomes in certain countries. Depending on the individual country’s legal requirements, these required payments will continue until the former employee begins receiving pension benefits or passes away. The total amounts accrued for workforce reductions, including amounts classified as other accrued expenses and liabilities in the Consolidated Balance Sheet, were $701 million and $1,359 million at December 31, 2022 and 2021, respectively. The decrease is primarily due to cash payments made in 2022 for the workforce reduction action in the fourth quarter of 2020. The company recorded a charge of $1,472 million in selling, general and administrative expense in the Consolidated Income Statement in the year ended December 31, 2020 for severance and employee related benefits in accordance with the accounting guidance for ongoing benefit arrangements.

The company employs extensive internal environmental protection programs that primarily are preventive in nature. The company also participates in environmental assessments and cleanups at a number of locations, including operating facilities, previously owned facilities and Superfund sites. The company’s maximum exposure for all environmental liabilities cannot be estimated and no amounts have been recorded for non-ARO environmental liabilities that are not probable or estimable. The total amounts accrued for non-ARO environmental liabilities, including amounts classified as current in the Consolidated Balance Sheet, that do not reflect actual or anticipated insurance recoveries, were $271 million and $248 million at December 31, 2022 and 2021, respectively. Estimated environmental costs are not expected to materially affect the consolidated financial position or consolidated results of the company’s operations in future periods. However, estimates of future costs are subject to change due to protracted cleanup periods, changing environmental remediation regulations and changes in assumptions.

As of December 31, 2022, the company was unable to estimate the range of settlement dates and the related probabilities for certain asbestos remediation AROs. These conditional AROs are primarily related to the encapsulated structural fireproofing that is not subject to abatement unless the buildings are demolished and non-encapsulated asbestos that the company would remediate only if it performed major renovations of certain existing buildings. Because these conditional obligations have indeterminate settlement dates, the company could not develop a reasonable estimate of their fair values. The company will continue to assess its ability to estimate fair values at each future reporting date. The related liability will be recognized once sufficient additional information becomes available. The total amounts accrued for ARO liabilities, including amounts classified as current in the Consolidated Balance Sheet, were $107 million and $119 million at December 31, 2022 and 2021, respectively.

Commitments & Contingencies	12 Months Ended Dec. 31, 2022

Commitments & Contingencies

Commitments & Contingencies

NOTE R. COMMITMENTS & CONTINGENCIES

Commitments

The company's extended lines of credit to third-party entities include unused amounts of $1.6 billion and $1.7 billion at December 31, 2022 and 2021, respectively. A portion of these amounts was available to the company's business partners to support their working capital needs. In addition, the company has committed to provide future financing to its clients in connection with client purchase agreements for $2.1 billion and $3.2 billion at December 31, 2022 and 2021, respectively. The reduction in the future financing commitments is primarily due to lower services financing in the current year. The company collectively evaluates the allowance for these arrangements using a provision methodology consistent with the portfolio of the commitments. Refer to note A, "Significant Accounting Policies," for additional information. The allowance for these commitments is recorded in other liabilities in the Consolidated Balance Sheet and was not material at December 31, 2022 and 2021.

The company has applied the guidance requiring a guarantor to disclose certain types of guarantees, even if the likelihood of requiring the guarantor's performance is remote. The following is a description of arrangements in which the company is the guarantor.

The company is a party to a variety of agreements pursuant to which it may be obligated to indemnify the other party with respect to certain matters. Typically, these obligations arise in the context of contracts entered into by the company, under which the company customarily agrees to hold the party harmless against losses arising from a breach of representations and covenants related to such matters as title to the assets sold, certain intellectual property rights, specified environmental matters, third-party performance of nonfinancial contractual obligations and certain income taxes. In each of these circumstances, payment by the company is conditioned on the other party making a claim pursuant to the procedures specified in the particular contract, the procedures of which typically allow the company to challenge the other party's claims. While indemnification provisions typically do not include a contractual maximum on the company's payment, the company's obligations under these agreements may be limited in terms of time and/or nature of claim, and in some instances, the company may have recourse against third parties for certain payments made by the company.

It is not possible to predict the maximum potential amount of future payments under these or similar agreements due to the conditional nature of the company's obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by the company under these agreements have not had a material effect on the company's business, financial condition or results of operations.

In addition, the company guarantees certain loans and financial commitments. The maximum potential future payment under these financial guarantees and the fair value of these guarantees recognized in the Consolidated Balance Sheet at December 31, 2022 and 2021 was not material.

Changes in the company's warranty liability for standard warranties, which are included in other accrued expenses and liabilities and other liabilities in the Consolidated Balance Sheet, and for extended warranty contracts, which are included in deferred income in the Consolidated Balance Sheet, are presented in the following tables.

Standard Warranty Liability

($ in millions)

	2022	2021
Balance at January 1	$ 77	$ 83
Current period accruals	84	82
Accrual adjustments to reflect experience	(2)	(1)
Charges incurred	(81)	(86)
Balance at December 31	$ 79	$ 77

Extended Warranty Liability (Deferred Income)

($ in millions)

	2022	2021
Balance at January 1	$ 350	$ 425
Revenue deferred for new extended warranty contracts	100	133
Amortization of deferred revenue	(163)	(198)
Other*	(15)	(10)
Balance at December 31	$ 272	$ 350
Current portion	$ 137	$ 163
Noncurrent portion	$ 135	$ 186

* Other consists primarily of foreign currency translation adjustments.

Contingencies

As a company with a substantial employee population and with clients in more than 175 countries, IBM is involved, either as plaintiff or defendant, in a variety of ongoing claims, demands, suits, investigations, tax matters and proceedings that arise from time to time in the ordinary course of its business. The company is a leader in the information technology industry and, as such, has been and will continue to be subject to claims challenging its IP rights and associated products and offerings, including claims of copyright and patent infringement and violations of trade secrets and other IP rights. In addition, the company enforces its own IP against infringement, through license negotiations, lawsuits or otherwise. Further, given the rapidly evolving external landscape of cybersecurity, privacy and data protection laws, regulations and threat actors, the company and its clients have been and will continue to be subject to actions or proceedings in various jurisdictions. Also, as is typical for companies of IBM's scope and scale, the company is party to actions and proceedings in various jurisdictions involving a wide range of labor and employment issues (including matters related to contested employment decisions, country-specific labor and employment laws, and the company's pension, retirement and other benefit plans), as well as actions with respect to contracts, product liability, securities, foreign operations, competition law and environmental matters. These actions may be commenced by a number of different parties, including competitors, clients, current or former employees, government and regulatory agencies, stockholders and representatives of the locations in which the company does business. Some of the actions to which the company is party may involve particularly complex technical issues, and some actions may raise novel questions under the laws of the various jurisdictions in which these matters arise.

The company records a provision with respect to a claim, suit, investigation or proceeding when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Any recorded liabilities, including any changes to such liabilities for the years ended December 31, 2022, 2021 and 2020 were not material to the Consolidated Financial Statements.

In accordance with the relevant accounting guidance, the company provides disclosures of matters for which the likelihood of material loss is at least reasonably possible. In addition, the company also discloses matters based on its consideration of other matters and qualitative factors, including the experience of other companies in the industry, and investor, customer and employee relations considerations.

With respect to certain of the claims, suits, investigations and proceedings discussed herein, the company believes at this time that the likelihood of any material loss is remote, given, for example, the procedural status, court rulings, and/or the strength of the company's defenses in those matters. With respect to the remaining claims, suits, investigations and proceedings discussed in this note, except as specifically discussed herein, the company is unable to provide estimates of reasonably possible losses or range of losses, including losses in excess of amounts accrued, if any, for the following reasons. Claims, suits, investigations and proceedings are inherently uncertain, and it is not possible to predict the ultimate outcome of these matters. It is the company's experience that damage amounts claimed in litigation against it are unreliable and unrelated to possible outcomes, and as such are not meaningful indicators of the company's potential liability. Further, the company is unable to provide such an estimate due to a number of other factors with respect to these claims, suits, investigations and proceedings, including considerations of the procedural status of the matter in question, the presence of complex or novel legal theories, and/or the ongoing discovery and development of information important to the matters. The company reviews claims, suits, investigations and proceedings at least quarterly, and decisions are made with respect to recording or adjusting provisions and disclosing reasonably possible losses or range of losses (individually or in the aggregate), to reflect the impact and status of settlement discussions, discovery, procedural and substantive rulings, reviews by counsel and other information pertinent to a particular matter.

Whether any losses, damages or remedies finally determined in any claim, suit, investigation or proceeding could reasonably have a material effect on the company's business, financial condition, results of operations or cash flows will depend on a number of variables, including: the timing and amount of such losses or damages; the structure and type of any such remedies; the significance of the impact any such losses, damages or remedies may have in the Consolidated Financial Statements; and the unique facts and circumstances of the particular matter that may give rise to additional factors. While the company will continue to defend itself vigorously, it is possible that the company's business, financial condition, results of operations or cash flows could be affected in any particular period by the resolution of one or more of these matters.

The following is a summary of the more significant legal matters involving the company.

In December 2017, CIS General Insurance Limited (CISGIL) sued IBM UK regarding a contract entered into by IBM UK and CISGIL in 2015 to implement and operate an IT insurance platform. The contract was terminated by IBM UK in July 2017 for non-payment by CISGIL. CISGIL alleges wrongful termination, breach of contract and breach of warranty. In February 2021, the Technology & Construction Court in London rejected the majority of CISGIL's claims and ruled in IBM's favor on its counterclaim. The court's decision required IBM to pay approximately $20 million in damages, plus interest and litigation costs. In April 2022, the Court of Appeal awarded CISGIL additional damages of approximately $89 million, plus interest and litigation costs. IBM filed an application for permission to appeal with the UK Supreme Court, which was denied in December 2022.

On June 8, 2021, IBM sued GlobalFoundries U.S. Inc. (GF) in New York State Supreme Court for claims including fraud and breach of contract relating to a long-term strategic relationship between IBM and GF for researching, developing, and manufacturing advanced semiconductor chips for IBM. GF walked away from its obligations and IBM is now suing to recover amounts paid to GF, and other compensatory and punitive damages, totaling more than $1.5 billion. On September 14, 2021, the court ruled on GF's motion to dismiss. On April 7, 2022, the Appellate Division unanimously reversed the lower court's dismissal of IBM's fraud claim. IBM's claims for breaches of contract, promissory estoppel, and fraud are proceeding.

On April 5, 2022, a putative securities law class action was commenced in the United States District Court for the Southern District of New York alleging that during the period from April 4, 2017 through October 20, 2021, certain strategic imperatives revenues were misclassified. The company, two current IBM senior executives, and two former IBM senior executives are named as defendants. On June 23, 2022, the court entered an order appointing Iron Workers Local 580 Joint Funds as lead plaintiff. On September 21, 2022, the plaintiff voluntarily dismissed the case, without prejudice. On January 13, 2023, a putative securities law class action making allegations substantially similar to those in the dismissed case was filed in the same court. On March 25, 2022, the Board of Directors received a shareholder demand letter making similar allegations and demanding that the company's Board of Directors take action to assert the company's rights. A special committee of independent directors was formed to investigate the issues raised in the letter. The special committee has completed its investigation and recommended that no claims should be asserted on behalf of the company. The independent directors of the company's Board of Directors unanimously adopted that recommendation.

On June 2, 2022, a putative class action lawsuit was filed in the United States District Court for the Southern District of New York alleging that the IBM Pension Plan miscalculated certain joint and survivor annuity pension benefits by using outdated actuarial tables in violation of the Employee Retirement Income Security Act of 1974. IBM, the Plan Administrator Committee, and the IBM Pension Plan are named as defendants.

As disclosed in the Kyndryl Form 10 and subsequent Kyndryl public filings, in 2017 BMC Software, Inc. (BMC) filed suit against IBM in the United States District Court for the Southern District of Texas in a dispute involving IBM's former managed infrastructure services business. On May 30, 2022, the trial court awarded BMC $718 million in direct damages and $718 million in punitive damages, plus interest and fees. IBM filed a notice of appeal, and BMC cross appealed. IBM does not believe it has any material exposure relating to this litigation. No material liability or related indemnification asset has been recorded by IBM.

The company is party to, or otherwise involved in, proceedings brought by U.S. federal or state environmental agencies under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), known as "Superfund," or laws similar to CERCLA. Such statutes require potentially responsible parties to participate in remediation activities regardless of fault or ownership of sites. The company is also conducting environmental investigations, assessments or remediations at or in the vicinity of several current or former operating sites globally pursuant to permits, administrative orders or agreements with country, state or local environmental agencies, and is involved in lawsuits and claims concerning certain current or former operating sites.

The company is also subject to ongoing tax examinations and governmental assessments in various jurisdictions. Along with many other U.S. companies doing business in Brazil, the company is involved in various challenges with Brazilian tax authorities regarding non-income tax assessments and non-income tax litigation matters. The total potential amount related to all these matters for all applicable years is approximately $400 million. The company believes it will prevail on these matters and that this amount is not a meaningful indicator of liability.

Equity Activity	12 Months Ended Dec. 31, 2022

[**Equity Activity**]
[Equity Activity]

NOTE S. EQUITY ACTIVITY

The authorized capital stock of IBM consists of (i) 4,687,500,000 shares of common stock with a $.20 per share par value, of which 906,091,977 shares were outstanding at December 31, 2022, and (ii) 150,000,000 shares of preferred stock with a $.01 per share par value, whereby 75,000,000 shares have been designated as Series A Preferred Stock, of which 57,916,244 shares of Series A Preferred Stock were issued to a wholly owned subsidiary of the company but were not outstanding at December 31, 2022. The company does not intend to issue or transfer any shares of Series A Preferred Stock to any third parties.

Stock Repurchases

The Board of Directors authorizes the company to repurchase IBM common stock. The company suspended its share repurchase program at the time of the Red Hat acquisition in 2019. At December 31, 2022, $2,008 million of Board common stock repurchase authorization was available.

Other Stock Transactions

The company issued the following shares of common stock as part of its stock-based compensation plans and employees stock purchase plan: 8,539,072 shares in 2022, 5,608,845 shares in 2021, and 4,972,028 shares in 2020. The company issued 2,512,300 treasury shares in 2022, 2,093,243 treasury shares in 2021, and 2,934,907 treasury shares in 2020, as a result of restricted stock unit releases and exercises of stock options by employees of certain acquired businesses and by non-U.S. employees. Also, as part of the company's stock-based compensation plans, 3,027,994 common shares at a cost of $407 million, 2,286,912 common shares at a cost of $319 million, and 2,363,966 common shares at a cost of $302 million in 2022, 2021 and 2020, respectively, were remitted by employees to the company in order to satisfy minimum statutory tax withholding requirements. These amounts are included in the treasury stock balance in the Consolidated Balance Sheet and the Consolidated Statement of Equity.

Reclassifications and Taxes Related to Items of Other Comprehensive Income

($ in millions)

For the year ended December 31, 2022:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$ 176	$ (406)	$ (229)
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ (1)	$ 0	$ (1)
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ (1)	$ 0	$ (1)
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	$ 241	$ (64)	$ 178
Reclassification of (gains)/losses to:			
Cost of services	(24)	6	(18)
Cost of sales	(99)	28	(70)
Cost of financing	24	(6)	18
SG&A expense	(38)	11	(28)
Other (income) and expense	(349)	88	(261)
Interest expense	86	(22)	64
Total unrealized gains/(losses) on cash flow hedges	$ (158)	$ 41	$ (117)
Retirement-related benefit plans*			
Prior service costs/(credits)	$ 463	$ (99)	$ 364
Net (losses)/gains arising during the period	878	(183)	695
Curtailments and settlements	5,970	(1,490)	4,480
Amortization of prior service (credits)/costs	12	(3)	9
Amortization of net (gains)/losses	1,596	(304)	1,293
Total retirement-related benefit plans	$8,919	$(2,078)	$6,841
Other comprehensive income/(loss)	$8,936	$(2,442)	$6,494

* These AOCI components are included in the computation of net periodic pension cost and include the impact of a one-time, non-cash pension settlement charge of $5.9 billion ($4.4 billion net of tax). Refer to note V, "Retirement-Related Benefits," for additional information.

($ in millions)

For the year ended December 31, 2021:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$ 987	$ (414)	$ 573
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ 0	$ 0	$ 0
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ 0	$ 0	$ 0
Unrealized gains/(losses) on cash flow hedges			

Unrealized gains/(losses) arising during the period	$ 344	$ (89)	$ 256
Reclassification of (gains)/losses to:			
Cost of services	(43)	11	(32)
Cost of sales	16	(3)	13
Cost of financing	22	(6)	17
SG&A expense	24	(6)	19
Other (income) and expense	157	(40)	118
Interest expense	65	(16)	49
Total unrealized gains/(losses) on cash flow hedges	$ 587	$ (149)	$ 438
Retirement-related benefit plans*			
Prior service costs/(credits)	$ (51)	$ (1)	$ (52)
Net (losses)/gains arising during the period	2,433	(601)	1,832
Curtailments and settlements	94	(11)	83
Amortization of prior service (credits)/costs	9	0	9
Amortization of net (gains)/losses	2,484	(528)	1,956
Total retirement-related benefit plans	$4,969	$(1,140)	$3,828
Other comprehensive income/(loss)	$6,542	$(1,703)	$4,839

* These AOCI components are included in the computation of net periodic pension cost. Refer to note V, "Retirement-Related Benefits," for additional information.

($ in millions)

For the year ended December 31, 2020:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$(1,500)	$ 535	$ (965)
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ (1)	$ 0	$ 0
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ (1)	$ 0	$ 0
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	$ (349)	$ 89	$ (261)
Reclassification of (gains)/losses to:			
Cost of services	(23)	6	(18)
Cost of sales	(2)	1	(2)
Cost of financing	27	(7)	20
SG&A expense	0	0	0
Other (income) and expense	(101)	25	(75)
Interest expense	78	(20)	58
Total unrealized gains/(losses) on cash flow hedges	$ (370)	$ 94	$ (277)
Retirement-related benefit plans*			
Prior service costs/(credits)	$ (37)	$ 7	$ (29)
Net (losses)/gains arising during the period	(1,678)	295	(1,383)
Curtailments and settlements	52	(14)	38
Amortization of prior service (credits)/costs	13	(1)	12
Amortization of net (gains)/losses	2,314	(451)	1,863
Total retirement-related benefit plans	$ 664	$ (163)	$ 501
Other comprehensive income/(loss)	$(1,206)	$ 466	$ (740)

* These AOCI components are included in the computation of net periodic pension cost. Refer to note V, "Retirement-Related Benefits," for additional information.

Accumulated Other Comprehensive Income/(Loss) (net of tax)

($ in millions)

	Net Unrealized Gains/(Losses) on Cash Flow Hedges	Foreign Currency Translation Adjustments *	Net Change Retirement-Related Benefit Plans	Net Unrealized Gains/(Losses) on Available-For-Sale Securities	Accumulated Other Comprehensive Income/(Loss)
December 31, 2019	$ (179)	$ (3,700)	$(24,718)	$ 0	$ (28,597)
Other comprehensive income before reclassifications	(261)	(965)	(1,412)	0	(2,638)
Amount reclassified from accumulated other comprehensive income	(16)	—	1,914	—	1,898
Total change for the period	(277)	(965)	501	0	(740)
December 31, 2020	(456)	(4,665)	(24,216)	0	(29,337)
Other comprehensive income before reclassifications	256	573	1,780	0	2,608
Amount reclassified from accumulated other comprehensive income	183	—	2,049	—	2,231
Separation of Kyndryl	—	730	534	—	1,264
Total change for the period	438	1,303	4,362	0	6,103
December 31, 2021	(18)	(3,362)	(19,854)	(1)	(23,234)
Other comprehensive income before reclassifications	178	(229)	1,059	(1)	1,007

Amount reclassified from accumulated other comprehensive income	(295)	—	5,782 **	—	5,487
Total change for the period	(117)	(229)	6,841	(1)	6,494
December 31, 2022	$ (135)	$ (3,591)	$(13,013)	$ (1)	$ (16,740)

* Foreign currency translation adjustments are presented gross except for any associated hedges which are presented net of tax.

** Includes the impact of a one-time, non-cash pension settlement charge of $5.9 billion ($4.4 billion net of tax). Refer to note V, "Retirement-Related Benefits," for additional information.

Derivative Financial Instruments	12 Months Ended Dec. 31, 2022
Derivative Financial Instruments	
Derivative Financial Instruments	

NOTE T. DERIVATIVE FINANCIAL INSTRUMENTS

The company operates in multiple functional currencies and is a significant lender and borrower in the global markets. In the normal course of business, the company is exposed to the impact of interest rate changes and foreign currency fluctuations, and to a lesser extent equity and commodity price changes and client credit risk. The company limits these risks by following established risk management policies and procedures, including the use of derivatives, and, where cost effective, financing with debt in the currencies in which assets are denominated. For interest rate exposures, derivatives are used to better align rate movements between the interest rates associated with the company's lease and other financial assets and the interest rates associated with its financing debt. Derivatives are also used to manage the related cost of debt. For foreign currency exposures, derivatives are used to better manage the cash flow volatility arising from foreign exchange rate fluctuations.

In the Consolidated Balance Sheet, the company does not offset derivative assets against liabilities in master netting arrangements nor does it offset receivables or payables recognized upon payment or receipt of cash collateral against the fair values of the related derivative instruments. The amount recognized in other accounts receivable for the right to reclaim cash collateral was $140 million and $2 million at December 31, 2022 and 2021, respectively. The amount recognized in accounts payable for the obligation to return cash collateral was $8 million and $38 million at December 31, 2022 and 2021, respectively. The company restricts the use of cash collateral received to rehypothecation, and therefore reports it in restricted cash in the Consolidated Balance Sheet. The amount rehypothecated was $8 million and $2 million at December 31, 2022 and 2021, respectively. Additionally, if derivative exposures covered by a qualifying master netting agreement had been netted in the Consolidated Balance Sheet at December 31, 2022 and 2021, the total derivative asset and liability positions each would have been reduced by $220 million and $60 million, respectively.

On May 19, 2022, in connection with the disposition of 22.3 million shares of Kyndryl common stock, the company entered into a cash-settled swap with the lender of the short-term credit facility as the counterparty that maintained IBM's continued economic exposure in those shares pursuant to the May 2022 Exchange. Refer to note J, "Financial Assets & Liabilities," for additional information. The notional value of the swap was $311 million. Upon settlement of the swap, which occurred on November 2, 2022, IBM recognized a loss and paid $83 million derived from the difference between the VWAP of the Kyndryl common stock over the outstanding term of the swap and the strike price of $13.95 per share.

In its hedging programs, the company may use forward contracts, futures contracts, interest-rate swaps, cross-currency swaps, equity swaps and options depending upon the underlying exposure. The company is not a party to leveraged derivative instruments.

A brief description of the major hedging programs, categorized by underlying risk, follows.

Interest Rate Risk

Fixed and Variable Rate Borrowings

The company issues debt in the global capital markets to fund its operations and financing business. Access to cost-effective financing can result in interest rate mismatches with the underlying assets. To manage these mismatches and to reduce overall interest cost, the company may use interest-rate swaps to convert specific fixed-rate debt issuances into variable-rate debt (i.e., fair value hedges) and to convert specific variable-rate debt issuances into fixed-rate debt (i.e., cash flow hedges). At December 31, 2022 and 2021, the total notional amount of the company's interest-rate swaps was $6.5 billion and $0.4 billion, respectively. The weighted-average remaining maturity of these instruments at December 31, 2022 and 2021 was approximately 6 years and 1.2 years, respectively. These interest-rate contracts were accounted for as fair value hedges. The company did not have any cash flow hedges relating to this program outstanding at December 31, 2022 and 2021.

Forecasted Debt Issuance

The company is exposed to interest rate volatility on future debt issuances. To manage this risk, the company may use instruments such as forward starting interest-rate swaps to lock in the rate on the interest payments related to the forecasted debt issuances. There were no instruments outstanding at December 31, 2022 and 2021.

In connection with cash flow hedges of forecasted interest payments related to the company's borrowings, the company recorded net losses (before taxes) of $139 million and $157 million at December 31, 2022 and 2021, respectively, in AOCI. The company estimates that $18 million of the deferred net losses (before taxes) on derivatives in AOCI at December 31, 2022 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying interest payments.

Foreign Exchange Risk

Long-Term Investments in Foreign Subsidiaries (Net Investment)

A large portion of the company's foreign currency denominated debt portfolio is designated as a hedge of net investment in foreign subsidiaries to reduce the volatility in stockholders' equity caused by changes in foreign currency exchange rates in the functional currency of major foreign subsidiaries with respect to the U.S. dollar. At December 31, 2022 and 2021, the carrying value of debt designated as hedging instruments was $13.4 billion and $14.1 billion, respectively. The company also uses cross-currency swaps and foreign exchange forward contracts for this risk management purpose. At December 31, 2022 and 2021, the total notional amount of derivative instruments designated as net investment hedges was $4.7 billion and $6.8 billion, respectively. At both December 31, 2022 and 2021, the weighted-average remaining maturity of these instruments was approximately 0.1 years.

Anticipated Royalties and Cost Transactions

The company's operations generate significant nonfunctional currency, third-party vendor payments and intercompany payments for royalties and goods and services among the company's non-U.S. subsidiaries and with the company. In anticipation of these foreign currency cash flows and in view of the volatility of the currency markets, the company selectively employs foreign exchange forward contracts to manage its currency risk. These forward contracts are accounted for as cash flow hedges. At December 31, 2022, the maximum remaining length of time over which the company has hedged its exposure to the variability in future cash flows is approximately two years. At December 31, 2022 and 2021, the total notional amount of forward contracts designated as cash flow hedges of forecasted royalty and cost transactions was $8.1 billion and $7.2 billion, respectively. At both December 31, 2022 and 2021, the weighted-average remaining maturity of these instruments was approximately 0.6 years.

At December 31, 2022 and 2021, in connection with cash flow hedges of anticipated royalties and cost transactions, the company recorded net gains (before taxes) of $66 million and $315 million, respectively, in AOCI. The company estimates that $7 million of deferred net gains (before taxes) on derivatives in AOCI at December 31, 2022 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying anticipated transactions.

Foreign Currency Denominated Borrowings

The company is exposed to exchange rate volatility on foreign currency denominated debt. To manage this risk, the company employs cross-currency swaps to convert fixed-rate foreign currency denominated debt to fixed-rate debt denominated in the functional currency of the borrowing entity. These swaps are accounted for as cash flow hedges. At December 31, 2022, the maximum length of time remaining over which the company has hedged its exposure was approximately five years. At December 31, 2022 and 2021, the total notional amount of cross-currency swaps designated as cash flow hedges of foreign currency denominated debt was $3.1 billion and $2.0 billion, respectively.

At December 31, 2022 and 2021, in connection with cash flow hedges of foreign currency denominated borrowings, the company recorded net losses (before taxes) of $101 million and $174 million, respectively, in AOCI. The company estimates that $10 million of deferred net gains (before taxes) on derivatives in AOCI at December 31, 2022 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying exposure.

Subsidiary Cash and Foreign Currency Asset/Liability Management

The company uses its Global Treasury Centers to manage the cash of its subsidiaries. These centers principally use currency swaps to convert cash flows in a cost-effective manner. In addition, the company uses foreign exchange forward contracts to economically hedge, on a net basis, the foreign currency exposure of a portion of the company's nonfunctional currency assets and liabilities. The terms of these forward and swap contracts are generally less than one year. The changes in the fair values of these contracts and of the underlying hedged exposures are generally offsetting and are recorded in other (income) and expense in the Consolidated Income Statement. At December 31, 2022 and 2021, the total notional amount of derivative instruments in economic hedges of foreign currency exposure was $5.9 billion and $6.8 billion, respectively.

Equity Risk Management

The company is exposed to market price changes in certain broad market indices and in the company's own stock primarily related to certain obligations to employees. Changes in the overall value of these employee compensation obligations are recorded in SG&A expense in the Consolidated Income Statement. Although not designated as accounting hedges, the company utilizes derivatives, including equity swaps and futures, to economically hedge the exposures related to its employee compensation obligations. The derivatives are linked to the total return on certain broad market indices or the total return on the company's common stock, and are recorded at fair value with gains or losses also reported in SG&A expense in the Consolidated Income Statement. At December 31, 2022 and 2021, the total notional amount of derivative instruments in economic hedges of these compensation obligations was $1.1 billion and $1.4 billion, respectively.

Cumulative Basis Adjustments for Fair Value Hedges

At December 31, 2022 and 2021, the following amounts were recorded in the Consolidated Balance Sheet related to cumulative basis adjustments for fair value hedges:

($ in millions)

At December 31:	2022	2021
Short-term debt		
Carrying amount of the hedged item	$ (199)	$(227)
Cumulative hedging adjustments included in the carrying amount—assets/(liabilities)	1	(2)
Long-term debt		
Carrying amount of the hedged item	(6,216)	(508)
Cumulative hedging adjustments included in the carrying amount—assets/(liabilities)*	72	(309)

* Includes ($250) million and ($302) million of hedging adjustments on discontinued hedging relationships at December 31, 2022 and 2021, respectively.

The Effect of Derivative Instruments in the Consolidated Income Statement

The total amounts of income and expense line items presented in the Consolidated Income Statement in which the effects of fair value hedges, cash flow hedges, net investment hedges and derivatives not designated as hedging instruments are recorded and the total effect of hedge activity on these income and expense line items are as follows:

($ in millions)

For the year ended December 31:	Total 2022	Total 2021	Total 2020	Gains/(Losses) of Total Hedge Activity 2022	Gains/(Losses) of Total Hedge Activity 2021	Gains/(Losses) of Total Hedge Activity 2020
Cost of services	$21,062	$19,147	$17,689	$ 24	$ 43	$ 23
Cost of sales	6,374	6,184	6,048	99	(16)	2
Cost of financing	406	534	577	2	1	12
SG&A expense	18,609	18,745	20,561	(211)	176	141
Other (income) and expense	5,803	873	802	(225)	(205)	101
Interest expense	1,216	1,155	1,288	6	3	35

($ in millions)

	Gain/(Loss) Recognized in Consolidated Income Statement						
For the year ended December 31:	Consolidated Income Statement Line Item	Recognized on Derivatives 2022	Recognized on Derivatives 2021	Recognized on Derivatives 2020	Attributable to Risk Being Hedged [(2)] 2022	Attributable to Risk Being Hedged [(2)] 2021	Attributable to Risk Being Hedged [(2)] 2020
Derivative instruments in fair value hedges [(1)]							
Interest rate contracts	Cost of financing	$ (73)	$ (1)	$ 20	$ 85	$ 18	$ 4
	Interest expense	(257)	(2)	58	299	53	11
Derivative instruments not designated as hedging instruments							
Foreign exchange contracts	Other (income) and expense	(492)	(48)	1	N/A	N/A	N/A
Equity contracts	SG&A expense	(249)	201	142	N/A	N/A	N/A
	Other (income) and expense	(83)	—	—	N/A	N/A	N/A
Total		$(1,153)	$150	$220	$384	$ 71	$ 14

($ in millions)

	Gain/(Loss) Recognized in Consolidated Income Statement and Other Comprehensive Income									
For the year ended December 31:	Recognized in OCI 2022	Recognized in OCI 2021	Recognized in OCI 2020	Consolidated Income Statement Line Item	Reclassified from AOCI 2022	Reclassified from AOCI 2021	Reclassified from AOCI 2020	Amounts Excluded from Effectiveness Testing [(3)] 2022	Amounts Excluded from Effectiveness Testing [(3)] 2021	Amounts Excluded from Effectiveness Testing [(3)] 2020
Derivative instruments in cash flow hedges										
Interest rate contracts	$ —	$ —	$ —	Cost of financing	$ (4)	$ (4)	$ (5)	$ —	$ —	$ —
				Interest expense	(14)	(13)	(13)	—	—	—
Foreign exchange contracts	241	344	(349)	Cost of services	24	43	23	—	—	—
				Cost of sales	99	(16)	2	—	—	—
				Cost of financing	(21)	(18)	(23)	—	—	—
				SG&A expense	38	(24)	0	—	—	—
				Other (income) and expense	349	(157)	101	—	—	—
				Interest expense	(72)	(52)	(65)	—	—	—
Instruments in net investment hedges [(4)]										
Foreign exchange contracts	1,613	1,644	(2,127)	Cost of financing	—	—	—	14	6	16
				Interest expense	—	—	—	50	17	45
Total	$ 1,854	$ 1,989	$ (2,477)		$ 400	$ (243)	$ 21	$ 64	$ 23	$ 60

[(1)] The amount includes changes in clean fair values of the derivative instruments in fair value hedging relationships and the periodic accrual for coupon payments required under these derivative contracts.

[(2)] The amount includes basis adjustments to the carrying value of the hedged item recorded during the period and amortization of basis adjustments recorded on de-designated hedging relationships during the period.

[(3)] The company's policy is to recognize all fair value changes in amounts excluded from effectiveness testing in net income each period.

[(4)] Instruments in net investment hedges include derivative and non-derivative instruments with the amounts recognized in OCI providing an offset to the translation of foreign subsidiaries.

N/A–Not applicable

For the years ending December 31, 2022, 2021 and 2020, there were no material gains or losses excluded from the assessment of hedge effectiveness (for fair value or cash flow hedges), or associated with an underlying exposure that did not or was not expected to occur (for cash flow hedges); nor are there any anticipated in the normal course of business.

Stock-Based Compensation	12 Months Ended Dec. 31, 2022

Stock-Based Compensation

Stock-Based Compensation

NOTE U. STOCK-BASED COMPENSATION

The following table presents total stock-based compensation cost included in income from continuing operations.

($ in millions)

For the year ended December 31:	2022	2021	2020
Cost	$ 164	$ 145	$ 126
SG&A expense	566	555	550
RD&E expense	258	218	197
Pre-tax stock-based compensation cost	987	919	873
Income tax benefits	(249)	(223)	(198)
Net stock-based compensation cost	$ 738	$ 695	$ 675

The company's total unrecognized compensation cost related to non-vested awards at December 31, 2022 was $1.5 billion and is expected to be recognized over a weighted-average period of approximately 2.6 years.

Capitalized stock-based compensation cost was not material at December 31, 2022, 2021 and 2020.

Incentive Awards

Stock-based incentive awards are provided to employees under the terms of the company's long-term performance plans (the Plans). The Plans are administered by the Executive Compensation and Management Resources Committee of the Board of Directors. Awards available under the Plans principally include restricted stock units, performance share units, stock options or any combination thereof.

There were 293 million shares originally authorized to be awarded under the company's existing Plans and 66 million shares granted under previous plans that, if and when those awards were cancelled, could be reissued under the existing Plans. At December 31, 2022, 65 million unused shares were available to be granted.

Stock Awards

Stock awards for the periods presented were made in the form of Restricted Stock Units (RSUs), including Retention Restricted Stock Units (RRSUs), or Performance Share Units (PSUs).

The following table summarizes RSU and PSU activity under the Plans during the years ended December 31, 2022, 2021 and 2020.

	RSUs		PSUs	
	Weighted-Average Grant Price	Number of Units	Weighted-Average Grant Price	Number of Units
Balance at January 1, 2020	$ 123	11,326,628	$ 126	2,856,450
Awards granted	115	10,651,955	117	1,582,666
Awards released	126	(3,781,240)	137	(630,974)
Awards canceled/forfeited/ performance adjusted	121	(1,300,639)	125	(256,642)*
Balance at December 31, 2020	$ 117	16,896,704	$ 120	3,551,500 **
Awards granted	125	9,566,307	129	1,561,120
Awards released	120	(4,582,159)	129	(581,397)
Awards canceled/forfeited/ performance adjusted	119	(2,072,800)	124	(453,178)*
Kyndryl separation - adjustment	—	660,089	—	120,428
Kyndryl separation - cancellation	119	(1,429,661)	119	(469,616)
Balance at December 31, 2021	$ 116	19,038,480	$ 118	3,728,857 **
Awards granted	112	11,447,966	110	1,237,019
Awards released	114	(7,013,530)	114	(679,601)
Awards canceled/forfeited/ performance adjusted	116	(2,420,002)	116	(720,197)*
Balance at December 31, 2022	$ 115	21,052,914	$ 117	3,566,078 **

* Includes adjustments of (362,247), (223,397) and (70,089) PSUs for 2022, 2021 and 2020, respectively, because final performance metrics were above or below specified targets.

** Represents the number of shares expected to be issued based on achievement of grant date performance targets. The actual number of shares issued will depend on final performance against specified targets over the vesting period.

The total fair value of RSUs and PSUs granted and vested during the years ended December 31, 2022, 2021 and 2020 were as follows:

($ in millions)

For the year ended December 31:	2022	2021	2020
RSUs			
Granted	$1,288	$1,195	$1,220
Vested	801	549	478
PSUs			
Granted	$ 136	$ 201	$ 186
Vested	77	75	86

In connection with vesting and release of RSUs and PSUs, the tax benefits realized by the company for the years ended December 31, 2022, 2021 and 2020 were $249 million, $175 million and $139 million, respectively.

Stock Options

Stock options are awards which allow the employee to purchase shares of the company's stock at a fixed price. Stock options are granted at an exercise price equal to the company's average high and low stock price on the date of grant. These awards generally vest in four equal increments on the first four anniversaries of the grant date and have a contractual term of 10 years. The company estimates the fair value of stock options at the date of grant using a Black-Scholes valuation model. Key inputs and assumptions used to estimate the fair value of stock options include the grant price of the award, the expected option term, volatility of the company's stock, the risk-free rate and the company's dividend yield. For the stock options granted for the year ended December 31, 2022, the expected option term was determined from historical exercise patterns, volatility was based on an analysis of the company's historical stock prices over the expected option term, the risk-free rate was obtained from the U.S. Treasury yield curve in effect at the time of grant and the dividend yield was based on the company's expectation of paying dividends in the foreseeable future. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by employees who receive equity awards, and subsequent events are not indicative of the reasonableness of the original estimates of fair value made by the company. During the years ended December 31, 2021 and 2020, the company did not grant stock options and no material stock options were exercised, forfeited or cancelled. In 2022, stock options were primarily granted by the company as part of its executive compensation programs.

The weighted-average fair value of stock options granted for the year ended December 31, 2022 was $14.29. The fair value was estimated based on the following weighted-average assumptions:

For the year ended December 31:	2022
Expected term (years)	6.3
Expected volatility	25.5 %
Risk-free rate	2.0 %
Dividend yield	5.3 %

The following table summarizes option activity under the Plans during the year ended December 31, 2022.

	Weighted-Average Exercise Price	Number of Shares Under Option
Balance at January 1, 2022	$135	1,549,732
Options granted	125	5,044,353
Options exercised	—	—
Options forfeited/cancelled/expired	125	(319,560)
Balance at December 31, 2022	$128	6,274,525
Vested and exercisable at December 31, 2022	$135	1,549,732

The weighted-average remaining contractual term and the aggregate intrinsic value of stock options outstanding was 7.7 years and $87 million, respectively, at December 31, 2022. The weighted-average remaining contractual term and the aggregate intrinsic value of stock options vested and exercisable was 3.1 years and $12 million, respectively, at December 31, 2022. The total intrinsic value of stock options exercised for the years ended December 31, 2022, 2021 and 2020 was immaterial.

The company settles employee stock option exercises primarily with newly issued common shares and, occasionally, with treasury shares. Total treasury shares held at December 31, 2022 and 2021 were approximately 1,351 million shares.

Acquisitions

In connection with various acquisition transactions, there were 0.4 million stock options outstanding at December 31, 2022, as a result of the company's conversion of stock-based awards previously granted by acquired entities. The weighted-average exercise price of these stock options was $20 per share. No material stock awards were outstanding at December 31, 2022.

IBM Employees Stock Purchase Plan

Effective April 1, 2022, the company increased the discount for eligible participants to purchase shares of IBM common stock under its Employee Stock Purchase Plan (ESPP) from 5 percent to 15 percent off the average market price on the date of purchase. With this change, the ESPP is considered compensatory under the accounting requirements for stock-based compensation. The ESPP enables eligible participants to purchase shares of IBM common stock through payroll deductions of up to 10 percent of eligible compensation. Eligible compensation includes any compensation received by the employee during the year. The ESPP provides for semi-annual offering periods during which shares may be purchased and continues as long as shares remain available under the ESPP, unless terminated earlier at the discretion of the Board of Directors. Individual ESPP participants are restricted from purchasing more than $25,000 of common stock in one calendar year or 1,000 shares in an offering period.

Employees purchased approximately 2.4 million, 1.0 million and 1.1 million shares under the ESPP during the years ended December 31, 2022, 2021 and 2020, respectively. For the year ended December 31, 2022, the average market price of shares purchased was $114 per share and the total stock-based compensation cost was $43 million. Cash dividends declared and paid by the company on its common stock also include cash dividends on the company stock purchased through the ESPP. Dividends are paid on full and fractional shares and can be reinvested. The company stock purchased through the ESPP is considered outstanding and is included in the weighted-average outstanding shares for purposes of computing basic and diluted earnings per share.

Approximately 14.4 million shares were available for purchase under the ESPP at December 31, 2022.

Retirement-Related Benefits

	12 Months Ended
	Dec. 31, 2022

Retirement-Related Benefits

Retirement-Related Benefits

NOTE V. RETIREMENT-RELATED BENEFITS

Description of Plans

IBM sponsors the following retirement-related plans/benefits:

Plan		Eligibility	Funding	Benefit Calculation	Other
U.S. Defined Benefit (DB) Pension Plans	Qualified Personal Pension Plan (Qualified PPP)	U.S. regular, full-time and part-time employees hired prior to January 1, 2005	Company contributes to irrevocable trust fund, held for sole benefit of participants and beneficiaries	Vary based on the participant: Five-year, final pay formula based on salary, years of service, mortality and other participant-specific factors Cash balance formula based on percentage of employees' annual salary, as well as an interest crediting rate	Benefit accruals ceased December 31, 2007. Certain defined benefit pension obligations and related plan assets were transferred in 2022, as described below
	Excess Personal Pension Plan (Excess PPP)		Unfunded, provides benefits in excess of IRS limitations for qualified plans		
	Supplemental Executive Retention Plan (Retention Plan)	Eligible U.S. executives	Unfunded	Based on average earnings, years of service and age at termination of employment	
U.S. Defined Contribution (DC) Plans*	401(k) Plus	U.S. regular, full-time and part-time employees	All contributions are made in cash and invested in accordance with participants' investment elections	Dollar-for-dollar match, generally 5 or 6 percent of eligible compensation and automatic matching of 1, 2 or 4 percent of eligible compensation, depending on date of hire	Employees generally receive contributions after one year of service
	Excess 401(k) Plus	U.S. employees whose eligible compensation is expected to exceed IRS compensation limit for qualified plans	Unfunded, non-qualified amounts deferred are record-keeping (notional) accounts and are not held in trust for the participants, but may be invested in accordance with participants' investment elections (under the 401(k) Plus Plan options)	Company match and automatic contributions (at the same rate under 401(k) Plus Plan) on eligible compensation deferred and on compensation earned in excess of the IRC pay limit. The percentage varies depending on eligibility and years of service	Employees generally receive contributions after one year of service. Amounts deferred into the Plan, including company contributions, are recorded as liabilities
U.S. Nonpension Postretirement Benefit Plan	Nonpension Postretirement Plan	Medical and dental benefits for eligible U.S. retirees and eligible dependents, as well as life insurance for eligible U.S. retirees	Company contributes to irrevocable trust fund, held for the sole benefit of participants and beneficiaries	Varies based on plan design formulas and eligibility requirements	Since January 1, 2004, new hires are not eligible for these benefits
Non-U.S. Plans	DB or DC	Eligible regular employees in certain non-U.S. subsidiaries or branches	Company deposits funds under various fiduciary-type arrangements, purchases annuities under group contracts or provides reserves for these plans	Based either on years of service and the employee's compensation (generally during a fixed number of years immediately before retirement) or on annual credits	In certain countries, benefit accruals have ceased and/or have been closed to new hires as of various dates
	Nonpension Postretirement Plan	Medical and dental benefits for eligible non-U.S. retirees and eligible dependents, as well as life insurance for certain eligible non-U.S. retirees	Primarily unfunded except for a few select countries where the company contributes to irrevocable trust funds held for the sole benefit of participants and beneficiaries	Varies based on plan design formulas and eligibility requirements by country	Most non-U.S. retirees are covered by local government sponsored and administered programs

* Matching and automatic contributions are made once at the end of the year for employees that are employed as of December 15 of the plan year. Contributions may be made for certain types of separations that occur prior to December 15. Beginning in 2023, matching and automatic contributions are made each pay period instead of annually.

Plan Financial Information

Summary of Financial Information

The following table presents a summary of the total retirement-related benefits net periodic (income)/cost recorded in the Consolidated Income Statement.

($ in millions)

	U.S. Plans			Non-U.S. Plans			Total		
For the year ended December 31:	**2022**	**2021**	**2020**	**2022**	**2021**	**2020**	**2022**	**2021**	**2020**
Defined benefit pension plans	$5,849 *	$ 303	$167	$ 836	$1,119	$1,057	$6,685	$1,422	$1,224
Retention Plan	8	16	11	—	—	—	8	16	11
Total defined benefit pension plans (income)/cost	$5,857 *	$ 319	$178	$ 836	$1,119	$1,057	$6,693	$1,438	$1,235
IBM 401(k) Plus Plan and non-U.S. plans	$ 530	$ 561	$585	$ 369	$ 409	$ 403	$ 899	$ 971	$ 988
Excess 401(k)	25	21	27	—	—	—	25	21	27
Total defined contribution plans cost	$ 555	$ 582	$612	$ 369	$ 409	$ 403	$ 924	$ 992	$1,015
Nonpension postretirement benefit plans cost	$ 85	$ 127	$145	$ 30	$ 44	$ 57	$ 115	$ 172	$ 202
Total retirement-related benefits net periodic cost	$6,497 *	$1,029	$934	$1,235	$1,573	$1,517	$7,732	$2,601	$2,451

* Includes the impact of a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion related to the Qualified PPP, as described below.

The following table presents a summary of the total PBO for defined benefit pension plans, APBO for nonpension postretirement benefit plans, fair value of plan assets and the associated funded status recorded in the Consolidated Balance Sheet.

($ in millions)

	Benefit Obligations		Fair Value of Plan Assets		Funded Status*	
At December 31:	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
U.S. Plans						
Overfunded plans						
Qualified PPP	$20,091 **	$46,458	$ 25,094 **	$ 51,852	$ 5,002	$ 5,395
Underfunded plans						
Excess PPP	$ 1,173	$ 1,441	$ —	$ —	$ (1,173)	$ (1,441)
Retention Plan	228	283	—	—	(228)	(283)
Nonpension postretirement benefit plan	2,369	3,404	10	8	(2,359)	(3,395)
Total underfunded U.S. plans	$ 3,771	$ 5,128	$ 10	$ 8	$ (3,761)	$ (5,119)
Non-U.S. Plans						
Overfunded plans						
Qualified defined benefit pension plans+	$15,443	$21,617	$ 18,677	$ 26,071	$ 3,234	$ 4,454
Nonpension postretirement benefit plans	7	—	7	—	0	—
Total overfunded non-U.S. plans	$15,450	$21,617	$ 18,684	$ 26,071	$ 3,234	$ 4,454
Underfunded plans						
Qualified defined benefit pension plans+	$11,361	$17,360	$ 9,694	$ 13,908	$ (1,667)	$ (3,452)
Nonqualified defined benefit pension plans+	4,457	6,120	—	—	(4,457)	(6,120)
Nonpension postretirement benefit plans	524	638	22	31	(502)	(607)
Total underfunded non-U.S. plans	$16,342	$24,118	$ 9,716	$ 13,939	$ (6,626)	$(10,179)
Total overfunded plans	$35,541	$68,075	$ 43,778	$ 77,924	$ 8,236	$ 9,850
Total underfunded plans	$20,113	$29,246	$ 9,726	$ 13,947	$(10,387)	$(15,300)

* Funded status is recognized in the Consolidated Balance Statement as follows: Asset amounts as prepaid pension assets; (Liability) amounts as compensation and benefits (current liability) and retirement and nonpension postretirement benefit obligations (noncurrent liability).

** Year-to-year reduction includes the transfer of $16 billion of pension benefit obligations and assets to the Insurers as discussed below.

\+ Non-U.S. qualified plans represent plans funded outside of the U.S. Non-U.S. nonqualified plans are unfunded.

At December 31, 2022, the company's qualified defined benefit pension plans worldwide were 114 percent funded compared to the benefit obligations, with the U.S. Qualified PPP 125 percent funded. Overall, including nonqualified plans, the company's defined benefit pension plans worldwide were 101 percent funded.

Defined Benefit Pension and Nonpension Postretirement Benefit Plan Financial Information

The following tables through page 112 represent financial information for the company's retirement-related benefit plans, excluding defined contribution plans. The defined benefit pension plans under U.S. Plans consist of the Qualified PPP, the Excess PPP and the Retention Plan. The defined benefit pension plans and the nonpension postretirement benefit plans under non-U.S. Plans consist of all plans sponsored by the company's subsidiaries. The nonpension postretirement benefit plan under U.S. Plan consists of only the U.S. Nonpension Postretirement Benefit Plan.

The following tables present the components of net periodic (income)/cost of the retirement-related benefit plans recognized in the Consolidated Income Statement, excluding defined contribution plans.

($ in millions)

	Defined Benefit Pension Plans	
	U.S. Plans	Non-U.S. Plans

For the year ended December 31:	2022	2021	2020	2022	2021	2020
Service cost	$ —	$ —	$ —	$ 237	$ 300	$ 328
Interest cost*	1,129	1,109	1,501	493	424	541
Expected return on plan assets*	(1,729)	(1,802)	(2,169)	(1,016)	(1,115)	(1,229)
Amortization of transition assets*	—	—	—	—	—	—
Amortization of prior service costs/(credits)*	8	16	16	14	(12)	(9)
Recognized actuarial losses*	527	996	829	1,031	1,392	1,336
Curtailments and settlements*	5,923 **	—	—	47	94	49
Multi-employer plans	—	—	—	15	17	23
Other costs/(credits)	—	—	—	15	18	18
Total net periodic (income)/cost	$ 5,857 *	$ 319	$ 178	$ 836	$ 1,119	$ 1,057

($ in millions)

	Nonpension Postretirement Benefit Plans					
	U.S. Plan			Non-U.S. Plans		
For the year ended December 31:	2022	2021	2020	2022	2021	2020
Service cost	$ 5	$ 7	$ 9	$ 3	$ 4	$ 4
Interest cost*	85	65	103	24	27	35
Expected return on plan assets*	—	—	—	(2)	(3)	(4)
Amortization of transition assets*	—	—	—	—	—	—
Amortization of prior service costs/(credits)*	(10)	4	4	0	0	0
Recognized actuarial losses*	5	52	29	4	15	21
Curtailments and settlements*	—	—	—	0	0	0
Other costs/(credits)	—	—	—	0	0	0
Total net periodic cost	$ 85	$127	$145	$30	$44	$57

* These components of net periodic pension costs are included in other (income) and expense in the Consolidated Income Statement.

** Includes the impact of a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion related to the Qualified PPP, as described below.

IBM U.S. Pension and Nonpension Postretirement Plan Changes

Over the past several years, the company has taken actions to reduce the risk profile of its worldwide retirement-related plans, while at the same time increasing the funded status of the plans. As described in note A, “Significant Accounting Policies,” in September 2022, the Qualified PPP irrevocably transferred to the Insurers approximately $16 billion of the Qualified PPP’s defined benefit pension obligations and related plan assets, thereby reducing the company’s pension obligations and assets by the same amount. This transaction further de-risks the company’s retirement-related plans by eliminating the potential for the company to make future cash contributions to fund this portion of pension obligations being transferred to the Insurers.

Upon issuance of the group annuity contracts, the Qualified PPP’s benefit obligations and administration for approximately 100,000 of the company’s retirees and beneficiaries (the Transferred Participants) were transferred to the Insurers. Under the group annuity contracts, each Insurer has made an irrevocable commitment, and will be solely responsible, to pay 50 percent of the pension benefits of each Transferred Participant that are due on and after January 1, 2023. The transaction resulted in no changes to the benefits to be received by the Transferred Participants. The company recognized a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022 primarily related to the accelerated recognition of actuarial losses included within AOCI in the Consolidated Statement of Equity.

In September 2022, the company amended its U.S. Nonpension Postretirement Plan to transition coverage for Medicare-eligible participants to a new IBM-sponsored group Medicare Advantage program administered by UnitedHealthcare, starting January 1, 2023. The changes are intended to provide an enhanced member experience, better value and more comprehensive benefits to IBM participants. This change resulted in a decrease in nonpension postretirement benefit obligations and a corresponding decrease in AOCI.

The following table presents the changes in benefit obligations and plan assets of the company’s retirement-related benefit plans, excluding DC plans.

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2022	2021	2022	2021	2022	2021	2022	2021
Change in benefit obligation								
Benefit obligation at January 1	$ 48,182	$52,237	$45,097	$50,447	$ 3,404	$ 3,791	$ 638	$ 756
Service cost	—	—	237	300	5	7	3	4
Interest cost	1,129	1,109	493	424	85	65	24	27
Plan participants' contributions	—	—	14	19	43	50	—	—
Acquisitions/divestitures, net	—	—	(45)	(70)	—	—	—	6
Actuarial losses/(gains)	(7,849)	(1,582)	(8,819)	(876)	(780)	(141)	(87)	(78)
Benefits paid from trust*	(3,133)	(3,181)	(1,572)	(1,736)	(385)	(369)	(6)	(6)
Direct benefit payments	(123)	(125)	(418)	(516)	(2)	(1)	(32)	(28)
Foreign exchange impact	—	—	(3,463)	(2,548)	—	—	(10)	(42)

Amendments/curtailments/ settlements/other*	(16,712)**	(276)	(262)	(347)	0	3	(1)	(1)
Benefit obligation at December 31	$ 21,493	$48,182	$31,261	$45,097	$ 2,369	$ 3,404	$ 531	$ 638
Change in plan assets								
Fair value of plan assets at January 1	$ 51,852	$54,386	$39,979	$42,308	$ 8	$ 15	$ 31	$ 40
Actual return on plan assets	(6,914)	924	(6,737)	1,686	—	—	3	(14)
Employer contributions	—	—	103	86	344	313	—	6
Acquisitions/divestitures, net	—	—	(20)	(87)	—	—	—	—
Plan participants' contributions	—	—	14	19	43	50	—	—
Benefits paid from trust*	(3,133)	(3,181)	(1,572)	(1,736)	(385)	(369)	(6)	(6)
Foreign exchange impact	—	—	(3,154)	(1,939)	—	—	2	6
Amendments/curtailments/ settlements/other*	(16,712)**	(276)	(243)	(358)	0	0	0	0
Fair value of plan assets at December 31	$ 25,094	$51,852	$28,371	$39,979	$ 10	$ 8	$ 29	$ 31
Funded status at December 31	$ 3,600	$ 3,671	$ (2,891)	$ (5,118)	$ (2,359)	$ (3,395)	$ (501)	$ (607)
Accumulated benefit obligation+	$ 21,493	$48,182	$30,961	$44,628	N/A	N/A	N/A	N/A

* Prior period amounts for defined benefit pension plans have been recast to conform to 2022 presentation.

** Primarily represents the transfer of Qualified PPP pension obligations and related plan assets to the Insurers pursuant to group annuity contracts.

\+ Represents the benefit obligation assuming no future participant compensation increases.

N/A–Not applicable

The following table presents the net funded status recognized in the Consolidated Balance Sheet.

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
At December 31:	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
Prepaid pension assets	$ 5,002	$ 5,395	$ 3,234	$ 4,455	$ 0	$ 0	$ 0	$ 0
Current liabilities—compensation and benefits	(121)	(123)	(347)	(359)	(307)	(364)	(16)	(19)
Noncurrent liabilities—retirement and nonpension postretirement benefit obligations	(1,281)	(1,601)	(5,777)	(9,215)	(2,052)	(3,031)	(486)	(588)
Funded status—net	$ 3,600	$ 3,671	$(2,891)	$(5,118)	$ (2,359)	$ (3,395)	$ (501)	$ (607)

The following table presents the pre-tax net loss, prior service costs/(credits) and transition (assets)/liabilities recognized in OCI and the changes in the pre-tax net loss, prior service costs/(credits) and transition (assets)/liabilities recognized in AOCI for the retirement-related benefit plans.

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2022	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
Net loss at January 1	$ 14,273	$ 15,972	$ 13,412	$ 16,310	$ 464	$ 656	$ 183	$ 263
Current period loss/(gain)	794	(704)	(1,115)	(1,411)	(365)	(141)	(93)	(65)
Curtailments and settlements	(5,923)*	—	(47)	(94)	—	—	0	0
Amortization of net loss included in net periodic (income)/cost	(527)	(996)	(1,031)	(1,392)	(5)	(52)	(4)	(15)
Net loss at December 31	$ 8,617	$ 14,273	$ 11,219	$ 13,412	$ 94	$ 464	$ 86	$ 183
Prior service costs/(credits) at January 1	$ 8	$ 24	$ 397	$ 325	$ 26	$ 30	$ (4)	$ (4)
Current period prior service costs/(credits)	—	—	(53)	60	(415)	—	5	0
Curtailments, settlements and other	—	—	—	—	—	—	—	—
Amortization of prior service (costs)/credits included in net periodic (income)/cost	(8)	(16)	(14)	12	10	(4)	0	0
Prior service costs/ (credits) at December 31	$ 0	$ 8	$ 330	$ 397	$ (379)	$ 26	$ 0	$ (4)
Transition (assets)/liabilities at January 1	$ —	$ —	$ 0	$ 0	$ —	$ —	$ 0	$ 0
Amortization of transition assets/ (liabilities) included in net periodic (income)/cost	—	—	—	—	—	—	—	0

Transition (assets)/ liabilities at December 31	$ —	$ —	$ 0	$ 0	$ —	$ —	$ 0	$ 0
Total loss recognized in accumulated other comprehensive income/ (loss)**	$ 8,617	$ 14,281	$ 11,549	$ 13,809	$ (285)	$ 490	$ 86	$ 179

* Includes the impact of a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion related to the Qualified PPP, as described above.

** Refer to note S, “Equity Activity,” for the total change in AOCI, and the Consolidated Statement of Comprehensive Income for the components of net periodic (income)/cost, including the related tax effects, recognized in OCI for the retirement-related benefit plans.

Assumptions Used to Determine Plan Financial Information

Underlying both the measurement of benefit obligations and net periodic (income)/cost are actuarial valuations. These valuations use participant-specific information such as salary, age and years of service, as well as certain assumptions, the most significant of which include estimates of discount rates, expected return on plan assets, rate of compensation increases, interest crediting rates and mortality rates. The company evaluates these assumptions, at a minimum, annually, and makes changes as necessary.

The following tables present the assumptions used to measure the net periodic (income)/cost and the year-end benefit obligations for retirement-related benefit plans.

	Defined Benefit Pension Plans					
	U.S. Plans			Non-U.S. Plans		
	2022	2021	2020	2022	2021	2020
Weighted-average assumptions used to measure net periodic (income)/cost for the year ended December 31						
Discount rate	3.30 %*	2.20 %	3.10 %	1.26 %	0.87 %	1.20 %
Expected long-term returns on plan assets	4.33 %*	3.75 %	4.50 %	2.97 %	2.85 %	3.36 %
Rate of compensation increase	N/A	N/A	N/A	3.02 %	2.59 %	2.32 %
Interest crediting rate	2.07 %*	1.10 %	2.70 %	0.26 %	0.26 %	0.28 %
Weighted-average assumptions used to measure benefit obligations at December 31						
Discount rate	5.30 %	2.60 %	2.20 %	3.80 %	1.26 %	0.87 %
Rate of compensation increase	N/A	N/A	N/A	4.00 %	3.02 %	2.59 %
Interest crediting rate	4.40 %	1.10 %	1.10 %	0.34 %	0.26 %	0.26 %

* The Qualified PPP discount rate, expected long-term return on plan assets and interest crediting rate of 2.60 percent, 4.00 percent and 1.10 percent, respectively, for the period January 1, 2022 through August 31, 2022, changed to 4.70 percent, 5.00 percent and 4.00 percent, respectively, for the period September 1, 2022 through December 31, 2022 due to remeasurement of the plan as a result of the changes described on page 110.

N/A–Not applicable

	Nonpension Postretirement Benefit Plans					
	U.S. Plan			Non-U.S. Plans		
	2022	2021	2020	2022	2021	2020
Weighted-average assumptions used to measure net periodic cost for the year ended December 31						
Discount rate	3.05 %*	1.80 %	2.80 %	5.35 %	4.55 %	5.08 %
Expected long-term returns on plan assets	N/A	N/A	N/A	6.64 %	6.62 %	7.73 %
Interest crediting rate	2.16 %*	1.10 %	2.70 %	N/A	N/A	N/A
Weighted-average assumptions used to measure benefit obligations at December 31						
Discount rate	5.30 %	2.30 %	1.80 %	7.25 %	5.35 %	4.55 %
Interest crediting rate	4.40 %	1.10 %	1.10 %	N/A	N/A	N/A

* The U.S. Nonpension Postretirement Plan discount rate and interest crediting rate of 2.30 percent and 1.10 percent, respectively, for the period January 1, 2022 through July 31, 2022, changed to 4.10 percent and 3.65 percent, respectively, for the period August 1, 2022 through December 31, 2022 due to remeasurement of the plan as a result of the changes described on page 110.

N/A–Not applicable

Item	Description of Assumptions
Discount Rate	Changes in discount rate assumptions impact net periodic (income)/cost and the PBO. For the U.S. and certain non-U.S. countries, a portfolio of high-quality corporate bonds is used to construct a yield curve. Cash flows from the company’s expected benefit obligation payments are matched to the yield curve to derive the discount rates.

	In other non-U.S. countries where the markets for high-quality long-term bonds are not as well developed, a portfolio of long-term government bonds is used as a base, and a credit spread is added to simulate corporate bond yields at these maturities in the jurisdiction of each plan. This is the benchmark for developing the respective discount rates.
Expected Long-Term Returns on Plan Assets	Represents the expected long-term returns on plan assets based on the calculated market-related value of plan assets and considers long-term expectations for future returns and the investment policies and strategies discussed on pages 114 to 115. These rates of return are developed and tested for reasonableness against historical returns by the company. The use of expected returns may result in pension income that is greater or less than the actual return of those plan assets in a given year. Over time, however, the expected long-term returns are designed to approximate the actual long-term returns, and therefore result in a pattern of income or loss recognition that more closely matches the pattern of the services provided by the employees. The difference between actual and expected returns is recognized as a component of net loss or gain in AOCI, which is amortized as a component of net periodic (income)/cost over the service lives or life expectancy of the plan participants, depending on the plan, provided such amounts exceed certain thresholds provided by accounting standards. The market-related value of plan assets recognizes changes in the fair value of plan assets systematically over a five-year period in the expected return on plan assets line in net periodic (income)/cost. The projected long-term rate of return on plan assets for 2023 is 5.50 percent for U.S. and 4.44 percent for non-U.S. DB Plans.
Rate of Compensation Increases and Mortality Assumptions	Compensation rate increases are determined based on the company's long-term plans for such increases. These rate increases are not applicable to the U.S. DB pension plans as benefit accruals ceased December 31, 2007. Mortality assumptions are based on life expectancy and death rates for different types of participants and are periodically updated based on actual experience.
Interest Crediting Rate	Benefits for certain participants in the PPP are calculated using a cash balance formula. An assumption underlying this formula is an interest crediting rate, which impacts both net periodic (income)/cost and the PBO. This provides the basis for projecting the expected interest rate that plan participants will earn on the benefits that they are expected to receive in the following year and is based on the average from August to October of the one-year U.S. Treasury Constant Maturity yield plus one percent.
Healthcare Cost Trend Rate	For nonpension postretirement benefit plans, the company determines healthcare cost trend rates based on medical cost inflation expectations in each market and IBM's plan characteristics. The healthcare cost trend rate is an important consideration when setting future expectations for plan costs or benefit obligations, taking into account the terms of the plan which limit the company's future obligations to the participants. The company's U.S. healthcare cost trend rate assumption for 2023 is 5.40 percent and is expected to decrease to 4.15 percent over approximately 14 years.

Plan Assets

Retirement-related benefit plan assets are recognized and measured at fair value. Because of the inherent uncertainty of valuations, these fair value measurements may not necessarily reflect the amounts the company could realize in current market transactions.

Investment Policies and Strategies

The investment objectives of the Qualified PPP portfolio are designed to generate returns that will enable the plan to meet its future obligations. The precise amount for which these obligations will be settled depends on future events, including the retirement dates and life expectancy of the plans' participants. The obligations are estimated using actuarial assumptions, based on the current economic environment and other pertinent factors described above. The Qualified PPP portfolio's investment strategy balances the requirement to generate returns, using potentially higher yielding assets such as equity securities, with the need to control risk in the portfolio with less volatile assets, such as fixed-income securities. Risks include, among others, inflation, volatility in equity values and changes in interest rates that could cause the plan to become underfunded, thereby increasing its dependence on contributions from the company. To mitigate any potential concentration risk, careful consideration is given to balancing the portfolio among industry sectors, companies and geographies, taking into account interest rate sensitivity, dependence on economic growth, currency and other
factors that affect investment returns. There were no significant changes to investment strategy made in 2022 and none are planned for 2023. The Qualified PPP portfolio's target allocation is 8 percent equity securities, 83 percent fixed-income securities, 4 percent real estate and 5 percent other investments.

The assets are managed by professional investment firms and investment professionals who are employees of the company. They are bound by investment mandates determined by the company's management and are measured against specific benchmarks. Among these managers, consideration is given, but not limited to, balancing security concentration, issuer concentration, investment style and reliance on particular active and passive investment strategies.

Market liquidity risks are tightly controlled, with $3,159 million of the Qualified PPP portfolio as of December 31, 2022 invested in private market assets consisting of private equities and private real estate investments, which are less liquid than publicly traded securities. In addition, the Qualified PPP portfolio had $1,137 million in commitments for future investments in private markets to be made over a number of years. These commitments are expected to be funded from plan assets.

Derivatives are used as an effective means to achieve investment objectives and/or as a component of the plan's risk management strategy. The primary reasons for the use of derivatives are fixed income management, including duration, interest rate management and credit exposure, cash equitization and to manage currency strategies.

Outside the U.S., the investment objectives are similar to those described previously, subject to local regulations. The weighted-average target allocation for the non-U.S. plans is 17 percent equity securities, 62 percent fixed-income securities, 3 percent real estate, 13 percent insurance contracts and 5 percent other investments, which is consistent with the allocation decisions made by the company's management. In some countries, a higher percentage allocation to fixed income is required to manage solvency and funding risks. In others, the responsibility for managing the investments typically lies with a board that may include up to 50 percent of members elected by employees and retirees. This can result in slight differences compared with the strategies previously described. The percentage of non-U.S. plans investment in assets that are less liquid is consistent with the U.S. plan. The use of derivatives is also consistent with the U.S. plan and mainly for currency hedging, interest rate risk management, credit exposure and alternative investment strategies.

The company's nonpension postretirement benefit plans are underfunded or unfunded. For some plans, the company maintains a nominal, highly liquid trust fund balance to ensure timely benefit payments.

Defined Benefit Pension Plan Assets

The following table presents the company's defined benefit pension plans' asset classes and their associated fair value at December 31, 2022. The U.S. Plan consists of the Qualified PPP and the non-U.S. Plans consist of all plans sponsored by the company's subsidiaries.

($ in millions)

	U.S. Plan				Non-U.S. Plans			
	Level 1	**Level 2**	**Level 3**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Total**
Equity								
Equity securities [1]	$ 518	$ —	$ —	$ 518	$ 247	$ —	$ —	$ 247
Equity mutual funds [2]	114	—	—	114	0	—	—	0
Fixed income								
Government and related [3]	—	9,074	—	9,074	—	6,837	—	6,837
Corporate bonds [4]	—	6,885	721	7,606	—	2,546	—	2,546
Mortgage and asset-backed securities	—	238	—	238	—	2	—	2
Fixed income mutual funds [5]	234	—	—	234	—	—	9	9
Insurance contracts [6]	—	—	—	—	—	3,654	—	3,654
Cash and short-term investments [7]	72	570	—	643	286	263	—	549
Private equity	—	—	421	421	—	—	—	—
Real estate	—	8	—	8	—	—	145	145
Derivatives [8]	—	—	—	—	32	262	—	294
Other mutual funds[9]	—	—	—	—	25	—	—	25
Subtotal	937	16,776	1,142	18,855	590	13,563	155	14,308
Investments measured at net asset value using the NAV practical expedient [10]	—	—	—	6,242	—	—	—	14,141
Other [11]	—	—	—	(4)	—	—	—	(78)
Fair value of plan assets	$ 937	$16,776	$1,142	$25,094	$ 590	$13,563	$155	$28,371

[1] Represents U.S. and international securities. The U.S. Plan includes IBM common stock of $1 million. Non-U.S. Plans include IBM common stock of $2 million.

[2] Invests in predominantly equity securities.

[3] Includes debt issued by national, state and local governments and agencies.

[4] The U.S. Plans include IBM corporate bonds of $6 million. Non-U.S. Plans include IBM corporate bonds of $3 million.

[5] Invests predominantly in fixed-income securities.

[6] Primarily represents insurance policy contracts (Buy-In) in certain non-U.S. plans.

[7] Includes cash, cash equivalents and short-term marketable securities.

[8] Includes interest-rate derivatives, forwards, exchange-traded and other over-the-counter derivatives.

[9] Invests in both equity and fixed-income securities.

[10] Investments measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient, including commingled funds, hedge funds, private equity and real estate partnerships.

[11] Represents net unsettled transactions, relating primarily to purchases and sales of plan assets.

The U.S. nonpension postretirement benefit plan assets of $10 million were invested primarily in cash equivalents, categorized as Level 1 in the fair value hierarchy. The non-U.S. nonpension postretirement benefit plan assets of $29 million, primarily in Brazil, and, to a lesser extent, in Mexico and South Africa, were invested primarily in government and related fixed-income securities and corporate bonds, categorized as Level 2 in the fair value hierarchy.

The following table presents the company's defined benefit pension plans' asset classes and their associated fair value at December 31, 2021. The U.S. Plan consists of the Qualified PPP and the non-U.S. Plans consist of all plans sponsored by the company's subsidiaries.

($ in millions)

	U.S. Plan				Non-U.S. Plans			
	Level 1	**Level 2**	**Level 3**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Total**
Equity								
Equity securities [1]	$ 2,023	$ 0	$ —	$ 2,023	$ 485	$ —	$ —	$ 485
Equity mutual funds [2]	133	—	—	133	0	—	—	0
Fixed income								
Government and related [3]	—	21,751	—	21,751	—	9,900	—	9,900
Corporate bonds [4]	—	16,246	598	16,844	—	3,842	—	3,842
Mortgage and asset-backed securities	—	660	—	660	—	3	—	3
Fixed income mutual funds [5]	281	—	—	281	—	—	—	—
Insurance contracts [6]	—	—	—	—	—	5,662	—	5,662
Cash and short-term investments [7]	104	1,269	—	1,373	324	403	—	728
Real estate	—	—	—	—	—	—	174	174
Derivatives [8]	3	3	—	5	61	489	—	550
Other mutual funds [9]	—	—	—	—	30	—	—	30
Subtotal	2,543	39,930	598	43,070	900	20,300	174	21,374
Investments measured at net asset value using the NAV practical expedient [10]	—	—	—	9,078	—	—	—	18,652
Other [11]	—	—	—	(296)	—	—	—	(47)
Fair value of plan assets	$ 2,543	$39,930	$598	$51,852	$ 900	$20,300	$174	$39,979

(1) Represents U.S. and international securities. The U.S. Plan includes IBM common stock of $2 million. Non-U.S. Plans include IBM common stock of $2 million.

(2) Invests in predominantly equity securities.

(3) Includes debt issued by national, state and local governments and agencies.

(4) The U.S. Plans include IBM corporate bonds of $19 million. Non-U.S. Plans include IBM corporate bonds of $4 million.

(5) Invests in predominantly fixed-income securities.

(6) Primarily represents insurance policy contracts (Buy-In) in certain non-U.S. plans.

(7) Includes cash, cash equivalents and short-term marketable securities.

(8) Includes interest-rate derivatives, forwards, exchange-traded and other over-the-counter derivatives.

(9) Invests in both equity and fixed-income securities.

(10) Investments measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient, including commingled funds, hedge funds, private equity and real estate partnerships.

(11) Represents net unsettled transactions, relating primarily to purchases and sales of plan assets.

The U.S. nonpension postretirement benefit plan assets of $8 million were invested in cash equivalents, categorized as Level 1 in the fair value hierarchy. The non-U.S. nonpension postretirement benefit plan assets of $31 million, primarily in Brazil, and, to a lesser extent, in Mexico and South Africa, were invested primarily in government and related fixed-income securities and corporate bonds, categorized as Level 2 in the fair value hierarchy.

The following tables present the reconciliation of the beginning and ending balances of Level 3 assets for the years ended December 31, 2022 and 2021 for the U.S. Plan.

($ in millions)

	Corporate Bonds	**Private Equity**	**Total**
Balance at January 1, 2022	$ 598	$ —	$ 598
Return on assets held at end of year	(114)	—	(114)
Return on assets sold during the year	(2)	—	(2)
Purchases, sales and settlements, net	206	—	206
Transfers, net	33	421	454
Balance at December 31, 2022	$ 721	$421	$1,142

($ in millions)

	Corporate Bonds
Balance at January 1, 2021	$ 542
Return on assets held at end of year	(15)
Return on assets sold during the year	1
Purchases, sales and settlements, net	63
Transfers, net	6
Balance at December 31, 2021	$ 598

The following tables present the reconciliation of the beginning and ending balances of Level 3 assets for the years ended December 31, 2022 and 2021 for the non-U.S. Plans.

($ in millions)

	Government and Related	Private Real Estate	Total
Balance at January 1, 2022	$ —	$ 174	$ 174
Return on assets held at end of year	0	6	6
Return on assets sold during the year	—	(1)	(1)
Purchases, sales and settlements, net	10	(16)	(7)
Transfers, net	—	0	0
Foreign exchange impact	0	(18)	(19)
Balance at December 31, 2022	$ 9	$ 145	$ 155

($ in millions)

	Government and Related	Private Real Estate	Total
Balance at January 1, 2021	$ 2	$ 298	$ 300
Return on assets held at end of year	0	(43)	(43)
Return on assets sold during the year	0	58	58
Purchases, sales and settlements, net	(2)	(138)	(140)
Transfers, net	—	—	—
Foreign exchange impact	0	(1)	(1)
Balance at December 31, 2021	$ —	$ 174	$ 174

Valuation Techniques

The following is a description of the valuation techniques used to measure plan assets at fair value. There were no changes in valuation techniques during 2022 and 2021.

Equity securities are valued at the closing price reported on the stock exchange on which the individual securities are traded. IBM common stock is valued at the closing price reported on the New York Stock Exchange. Mutual funds are typically valued based on quoted market prices. These assets are generally classified as Level 1.

The fair value of fixed-income securities is typically estimated using pricing models, quoted prices of securities with similar characteristics or discounted cash flows and are generally classified as Level 2. If available, they are valued using the closing price reported on the major market on which the individual securities are traded.

Cash includes money market accounts that are valued at their cost plus interest on a daily basis, which approximates fair value. Short-term investments represent securities with original maturities of one year or less. These assets are classified as Level 1 or Level 2.

Real estate valuations require significant judgment due to the absence of quoted market prices, the inherent lack of liquidity and the long-term nature of such assets. These assets are initially valued at cost and are reviewed periodically utilizing available and relevant market data, including appraisals, to determine if the carrying value of these assets should be adjusted. These assets are classified as Level 3.

Exchange-traded derivatives are valued at the closing price reported on the exchange on which the individual securities are traded, while forward contracts are valued using a mid-close price. Over-the-counter derivatives are typically valued using pricing models. The models require a variety of inputs, including, for example, yield curves, credit curves, measures of volatility and foreign exchange rates. These assets are classified as Level 1 or Level 2 depending on availability of quoted market prices.

Certain investments are measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient. These investments, which include commingled funds, hedge funds, private equity and real estate partnerships, are typically valued
using the NAV provided by the administrator of the fund and reviewed by the company. The NAV is based on the value of the underlying assets owned by the fund, minus liabilities and divided by the number of shares or units outstanding.

Contributions and Direct Benefit Payments

It is the company's general practice to fund amounts for pensions sufficient to meet the minimum requirements set forth in applicable employee benefits laws and local tax laws. From time to time, the company contributes additional amounts as it deems appropriate.

The following table presents the contributions made to the non-U.S. DB plans, nonpension postretirement benefit plans, multi-employer plans, DC plans and direct benefit payments for 2022 and 2021. The cash contributions to the multi-employer plans represent the annual cost included in the net periodic (income)/cost recognized in the Consolidated Income Statement. The company's participation in multi-employer plans has no material impact on the company's financial statements.

($ in millions)

For the years ended December 31:	2022	2021
Non-U.S. DB plans	$ 103	$ 86
Nonpension postretirement benefit plans	344	319
Multi-employer plans	15	17
DC plans	924	992
Direct benefit payments	576	671
Total	$ 1,962	$ 2,085

In 2022 and 2021, $349 million and $416 million, respectively, of contributions to the non-U.S. DB plans and nonpension postretirement benefit plans were made in U.S. Treasury securities. Additionally, in 2022 and 2021, contributions of $557 million and $424 million, respectively, were made to the Active Medical Trust in U.S. Treasury securities. Contributions made with U.S. Treasury securities are considered a non-cash transaction.

Defined Benefit Pension Plans

In 2023, the company is not legally required to make any contributions to the U.S. defined benefit pension plans. However, depending on market conditions, or other factors, the company may elect to make discretionary contributions to the Qualified PPP during the year.

In 2023, the company estimates contributions to its non-U.S. defined benefit and multi-employer plans to be approximately $200 million, the largest of which will be contributed to defined benefit pension plans in India and Spain. This amount generally represents legally mandated minimum contributions.

Financial market performance in 2023 could increase the legally mandated minimum contribution in certain countries which require monthly or daily remeasurement of the funded status. The company could also elect to contribute more than the legally mandated amount based on market conditions or other factors.

Expected Benefit Payments

Defined Benefit Pension Plan Expected Payments

The following table presents the total expected benefit payments to defined benefit pension plan participants subsequent to the transfer of Qualified PPP's defined benefit pension obligations and related plan assets, as described above. These payments have been estimated based on the same assumptions used to measure the plans' PBO at December 31, 2022 and include benefits attributable to estimated future compensation increases, where applicable.

($ in millions)

	Qualified U.S. Plan Payments	Nonqualified U.S. Plans Payments	Qualified Non-U.S. Plans Payments	Nonqualified Non-U.S. Plans Payments	Total Expected Benefit Payments
2023	$1,757	$ 124	$ 1,893	$ 342	$ 4,115
2024	1,791	123	1,869	323	4,106
2025	1,813	121	1,879	324	4,137
2026	1,765	119	1,866	328	4,077
2027	1,712	116	1,846	321	3,996
2028-2032	7,792	538	8,876	1,548	18,754

The 2023 expected benefit payments to defined benefit pension plan participants not covered by the respective plan assets (underfunded plans) represent a component of compensation and benefits, within current liabilities, in the Consolidated Balance Sheet.

Nonpension Postretirement Benefit Plan Expected Payments

The following table presents the total expected benefit payments to nonpension postretirement benefit plan participants. These payments have been estimated based on the same assumptions used to measure the plans' APBO at December 31, 2022.

($ in millions)

	U.S. Plan Payments	Qualified Non-U.S. Plans Payments	Nonqualified Non-U.S. Plans Payments	Total Expected Benefit Payments

2023	$ 326	$ 17	$ 23	$ 367
2024	253	18	23	294
2025	238	19	23	280
2026	229	20	22	272
2027	220	21	22	263
2028-2032	1,043	122	106	1,271

The 2023 expected benefit payments to nonpension postretirement benefit plan participants not covered by the respective plan assets represent a component of compensation and benefits, within current liabilities, in the Consolidated Balance Sheet.

Other Plan Information

The following table presents information for defined benefit pension plans with accumulated benefit obligations (ABO) in excess of plan assets. For a more detailed presentation of the funded status of the company's defined benefit pension plans, see the table on page 111.

($ in millions)

	2022		2021	
At December 31:	**Benefit Obligation**	**Plan Assets**	**Benefit Obligation**	**Plan Assets**
Plans with PBO in excess of plan assets	$17,220	$ 9,694	$25,204	$13,908
Plans with ABO in excess of plan assets	16,979	9,694	24,853	13,908
Plans with plan assets in excess of PBO	35,534	43,770	68,075	77,924

The following table presents information for the nonpension postretirement benefit plan with APBO in excess of plan assets. For a more detailed presentation of the funded status of the company's nonpension postretirement benefit plans, see the table on page 111.

($ in millions)

	2022		2021	
At December 31:	**Benefit Obligation**	**Plan Assets**	**Benefit Obligation**	**Plan Assets**
Plans with APBO in excess of plan assets	$2,893	$32	$4,042	$40
Plans with plan assets in excess of APBO	7	7	—	—

Subsequent Events	12 Months Ended Dec. 31, 2022
Subsequent Events	
Subsequent Events	**NOTE W. SUBSEQUENT EVENTS** On January 31, 2023, the company announced that the Board of Directors approved a quarterly dividend of $1.65 per common share. The dividend is payable March 10, 2023 to shareholders of record on February 10, 2023. On January 27, 2023, the company issued $0.7 billion of Japanese yen floating-rate syndicated bank loans with a maturity of 5 years. On February 6, 2023, the company issued $4.6 billion of Euro fixed-rate notes in tranches with maturities ranging from 4 to 20 years and coupons ranging from 3.375 to 4 percent; $0.9 billion of Pound sterling fixed-rate notes with a maturity of 15 years and a coupon of 4.875 percent; and $3.25 billion of U.S. dollar fixed-rate notes in tranches with maturities ranging from 3 to 30 years and coupons ranging from 4.5 to 5.1 percent.

SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS AND RESERVES	12 Months Ended
	Dec. 31, 2022
SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS AND RESERVES	
SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS AND RESERVES	

SCHEDULE II

INTERNATIONAL BUSINESS MACHINES CORPORATION AND SUBSIDIARY COMPANIES
VALUATION AND QUALIFYING ACCOUNTS AND RESERVES
For the Years Ended December 31:
(Dollars in Millions)

Description	Balance at Beginning of Period	Additions/ (Deductions)	Write-offs	Foreign Currency and Other	Balance at End of Period
Allowance For Credit Losses					
2022					
–Current	$ 418	$ 59	$ (55)	$ 45 *	$ 467
–Noncurrent	$ 25	$ 6	$ 0	$ (2)	$ 28
2021					
–Current	$ 503	$ (35)	$ (46)	$ (4)	$ 418
–Noncurrent	$ 47	$ (21)	$ 0	$ (2)	$ 25
2020					
–Current	$ 471	$ 91	$ (78)	$ 19	$ 503
–Noncurrent	$ 56	$ 4	$ 0	$ (13)	$ 47
Allowance For Inventory Losses					
2022	$ 633	$ 162	$ (148)	$ (15)	$ 631
2021	$ 514	$ 240	$ (118)	$ (3)	$ 633
2020	$ 490	$ 135	$ (125)	$ 15	$ 514
Revenue Based Provisions					
2022	$ 435	$ 620	$ (629)	$ (2)	$ 424
2021	$ 372	$ 627	$ (574)	$ 10	$ 435
2020	$ 383	$ 689	$ (712)	$ 13	$ 372

* Includes reserves related to discontinued operations.

Additions/(Deductions) to the allowances represent changes in estimates of unrecoverable amounts in receivables and inventory and are recorded to expense and cost accounts, respectively. Amounts are written-off when they are deemed unrecoverable by the company. Additions/(Deductions) to Revenue Based Provisions represent changes in estimated reductions to revenue, primarily as a result of revenue-related programs, including customer and business partner rebates. Write-offs for Revenue Based Provisions represent reductions in the provision due to amounts remitted to customers and business partners.

Significant Accounting Policies (Policies)	12 Months Ended Dec. 31, 2022

Significant Accounting Policies

Basis of Presentation

Basis of Presentation

The accompanying Consolidated Financial Statements and footnotes of the International Business Machines Corporation (IBM or the company) have been prepared in accordance with accou in the United States of America (GAAP).

Within the financial statements and tables presented, certain columns and rows may not add due to the use of rounded numbers for disclosure purposes. Percentages presented are calculat amounts. Certain prior-year amounts have been reclassified to conform to the current year presentation. This is annotated where applicable. In addition, in the first quarter of 2022, an adju between common stock and retained earnings related to the issuance of treasury stock in connection with certain previously issued stock-based compensation awards and is reflected in th Consolidated Statement of Equity at December 31, 2022.

On November 3, 2021, the company completed the separation of its managed infrastructure services unit into a new public company with the distribution of 80.1 percent of the outstanding Inc. (Kyndryl) to IBM stockholders on a pro rata basis. To effect the separation, IBM stockholders received one share of Kyndryl common stock for every five shares of IBM common sto October 25, 2021, the record date for the distribution. The company retained 19.9 percent of the shares of Kyndryl common stock immediately following the separation. During 2022, the co interest in Kyndryl common stock pursuant to exchange agreements with a third-party financial institution, which were completed within twelve months of separation. Refer to note J, "Financi information. At December 31, 2022, the company no longer held an ownership interest in Kyndryl.

The accounting requirements for reporting the separation of Kyndryl as a discontinued operation were met when the separation was completed. Accordingly, the historical results of Kyn operations and, as such, have been excluded from continuing operations and segment results for all periods presented. Refer to note C, "Separation of Kyndryl," for additional information.

In the first quarter of 2022, the company realigned its management structure to reflect the planned divestiture of its healthcare software assets which was completed in the second quarter company's Software segment and Other–divested businesses category, but did not impact the company's Consolidated Financial Statements. Refer to note E, "Segments," for additional infor segments. The segments presented in this Annual Report are reported on a comparable basis for all periods.

In September 2022, the IBM Qualified Personal Pension Plan (Qualified PPP) purchased two separate nonparticipating single premium group annuity contracts from The Prudential In Metropolitan Life Insurance Company (collectively, the Insurers) and irrevocably transferred to the Insurers approximately $16 billion of the Qualified PPP's defined benefit pension obligatio reducing the company's pension obligations and assets by the same amount. The group annuity contracts were purchased using assets of the Qualified PPP and no additional funding company. As a result of this transaction the company recognized a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022, recognition of accumulated actuarial losses of the Qualified PPP. Refer to note V, "Retirement-Related Benefits," for additional information.

The company reported a benefit from income taxes of $626 million for the year ended December 31, 2022. This tax benefit was primarily due to the transfer of a portion of the Qualified PPP's and related plan assets, as described above. The benefit from income taxes for the year ended December 31, 2020 was primarily due to the tax impacts of an intra-entity sale of certain of Refer to note H, "Taxes," for additional information.

Noncontrolling interest amounts of $20 million, $19 million and $13 million, net of tax, for the years ended December 31, 2022, 2021 and 2020, respectively, are included as a reduction withi Consolidated Income Statement.

Principles of Consolidation

Principles of Consolidation

The Consolidated Financial Statements include the accounts of IBM and its controlled subsidiaries, which are primarily majority owned. Any noncontrolling interest in the equity of a subsid total equity in the Consolidated Balance Sheet. Net income and losses attributable to the noncontrolling interest is reported as described above in the Consolidated Income Statement. The a (VIEs) are included in the Consolidated Financial Statements, if required. Investments in business entities in which the company does not have control but has the ability to exercise sign financial policies, are accounted for using the equity method and the company's proportionate share of income or loss is recorded in other (income) and expense. The accounting policy for o is described within the "Marketable Securities" section of this note. Equity investments in non-publicly traded entities lacking controlling financial interest or significant influence are prima indicators of fair value, net of impairment, if any. All intercompany transactions and accounts have been eliminated in consolidation.

Use of Estimates

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect amounts that are reported in the Consolidated Finan disclosures. Estimates are made for the following, among others: revenue, costs to complete service contracts, income taxes, pension assumptions, valuation of assets including g contingencies, allowance for credit losses and other matters. These estimates are based on management's best knowledge of current events, historical experience, actions that the compa on various other assumptions that are believed to be reasonable under the circumstances. Actual results may be different from these estimates.

In the fourth quarter of 2022, the company completed its annual assessment of the useful lives of its information technology equipment. Due to advances in technology, the company determi useful lives of its server and network equipment from five to six years for new assets and from three to four years for used assets. This change in accounting estimate will be effective beginn a prospective basis to these assets on the company's balance sheet as of December 31, 2022, as well as future asset purchases. Based on the carrying amount of server and network equip equipment-net in the company's Consolidated Balance Sheet as of December 31, 2022, the company estimates this change will increase income from continuing operations before income t

Revenue

Revenue

The company accounts for a contract with a client when it has written approval, the contract is committed, the rights of the parties, including payment terms, are identified, the contra consideration is probable of collection.

Revenue is recognized when, or as, control of a promised product or service transfers to a client, in an amount that reflects the consideration to which the company expects to be entitled products or services. If the consideration promised in a contract includes a variable amount, the company estimates the amount to which it expects to be entitled using either the expected v The company's contracts may include terms that could cause variability in the transaction price, including, for example, rebates, volume discounts, service-level penalties, and performance b revenue.

The company only includes estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the unce consideration is resolved. The company may not be able to reliably estimate contingent revenue in certain long-term arrangements due to uncertainties that are not expected to be resolve the company's experience with similar types of contracts is limited. The company's arrangements infrequently include contingent revenue. Changes in estimates of variable consideratio Recognition."

The company's standard billing terms are that payment is due upon receipt of invoice, payable within 30 days. Invoices are generally issued as control transfers and/or as services are rende transaction price, the company adjusts the promised amount of consideration for the effects of the time value of money if the billing terms are not standard and the timing of payments agr provide the client or the company with a significant benefit of financing, in which case the contract contains a significant financing component. As a practical expedient, the company does components if the period between when the company transfers the promised product or service to the client and when the client pays for that product or service will be one year or less financing component are financed through the company's Financing business and include explicit financing terms.

The company may include subcontractor services or third-party vendor equipment or software in certain integrated services arrangements. In these types of arrangements, revenue from sa services is recorded net of costs when the company is acting as an agent between the client and the vendor, and gross when the company is the principal for the transaction. To determine w principal, the company considers whether it obtains control of the products or services before they are transferred to the customer. In making this evaluation, several factors are considered, has primary responsibility for fulfillment to the client, as well as inventory risk and pricing discretion.

The company recognizes revenue on sales to solution providers, resellers and distributors (herein referred to as resellers) when the reseller has economic substance apart from the compar principal for the transaction with the end-user client.

The company reports revenue net of any revenue-based taxes assessed by governmental authorities that are imposed on and concurrent with specific revenue-producing transactions.

In addition to the aforementioned general policies, the following are the specific revenue recognition policies for arrangements with multiple performance obligations and for each major categ

Arrangements with Multiple Performance Obligations

The company's global capabilities as a hybrid cloud platform and AI company include services, software, hardware and related financing. The company enters into revenue arrangements t of these products and services based on the needs of its clients.

The company continues to develop new products and offerings and their associated consumption and delivery methods, including the use of cloud and as-a-Service models. These are not sep across the segments that address market opportunities in areas such as analytics, data, cloud, security and sustainability. Revenue from these offerings follows the specific revenue recogr multiple performance obligations and for each major category of revenue, depending on the type of offering, which are comprised of services, software and/or hardware.

To the extent that a product or service in multiple performance obligation arrangements is subject to other specific accounting guidance, such as leasing guidance, that product or service such specific guidance. For all other products or services in these arrangements, the company determines if the products or services are distinct and allocates the consideration to each c relative standalone selling price basis.

When products and services are not distinct, the company determines an appropriate measure of progress based on the nature of its overall promise for the single performance obligation.

The revenue policies in the Services, Hardware and/or Software sections below are applied to each performance obligation, as applicable.

Services

The company's primary services offerings include consulting services, including business transformation; technology consulting and application operations including the design and develo to a client's specifications (e.g., design and build); cloud services; business process outsourcing; and infrastructure support. Many of these services can be delivered entirely or partially thr models. The company's services are provided on a time-and-material basis, as a fixed-price contract or as a fixed-price per measure of output contract and the contract terms generally range

In services arrangements, the company typically satisfies the performance obligation and recognizes revenue over time. In design and build arrangements, the performance obligation is sa client controls the asset as it is created (e.g., when the asset is built at the customer site) or because the company's performance does not create an asset with an alternative use and the to payment plus a reasonable profit for performance completed to date. In most other services arrangements, the performance obligation is satisfied over time because the client simultar benefits provided as the company performs the services.

Revenue from time-and-material contracts is recognized on an output basis as labor hours are delivered and/or direct expenses are incurred. Revenue from as-a-Service type contracts, su recognized either on a straight-line basis or on a usage basis, depending on the terms of the arrangement (such as whether the company is standing ready to perform or whether the contr as-a-Service contract includes setup activities, those promises in the arrangement are evaluated to determine if they are distinct.

In areas such as application management, business process outsourcing and other cloud-based services arrangements, the company determines whether the services performed during th such as setup activities, are distinct. In most cases, the arrangement is a single performance obligation comprised of a series of distinct services that are substantially the same and that hav distinct days of service). The company applies a measure of progress (typically time-based) to any fixed consideration and allocates variable consideration to the distinct periods of service ba is generally recognized over the period the services are provided on a usage basis. This results in revenue recognition that corresponds with the value to the client of the services transferr services promised.

Revenue related to maintenance and technology lifecycle support and extended warranty is recognized on a straight-line basis over the period of performance because the company is stanc

In design and build contracts, revenue is recognized based on progress toward completion of the performance obligation using a cost-to-cost measure of progress. Revenue is recognized to date as a percentage of the total estimated labor costs to fulfill the contract. Due to the nature of the work performed in these arrangements, the estimation of cost at completion is com requires significant judgment. Key factors reviewed by the company to estimate costs to complete each contract are future labor and product costs and expected productivity efficiencies reflected in revenue on a cumulative catch-up basis in the period in which the circumstances that gave rise to the revision become
known by the company. Refer to note D, "Revenue Recognition," for the amount of revenue recognized in the reporting period on a cumulative catch-up basis (i.e., from performance obliga in previous periods).

The company performs ongoing profitability analyses of its design and build services contracts accounted for using a cost-to-cost measure of progress in order to determine whether the late profits require updating. If at any time these estimates indicate that the contract will be unprofitable, the entire estimated loss for the remainder of the contract is recorded immediately. For ot losses are recorded as incurred.

In some services contracts, the company bills the client prior to recognizing revenue from performing the services. Deferred income of $3,241 million and $3,460 million at December 31, 2022 in the Consolidated Balance Sheet. In other services contracts, the company performs the services prior to billing the client. When the company performs services prior to billing the client in to consideration is typically subject to milestone completion or client acceptance and the unbilled accounts receivable is classified as a contract asset. At December 31, 2022 and 2021, cont $426 million and $430 million, respectively, are included in prepaid expenses and other current assets in the Consolidated Balance Sheet. The remaining amount of unbilled accounts receiva at December 31, 2022 and 2021, respectively, is included in notes and accounts receivable–trade in the Consolidated Balance Sheet.

Billings usually occur in the month after the company performs the services or in accordance with specific contractual provisions.

Hardware

The company's hardware offerings include the sale or lease of Hybrid Infrastructure solutions including zSystems as well as Distributed Infrastructure solutions such as Power and storage products can also be delivered through as-a-Service or cloud delivery models, such as Infrastructure-as-a-Service and Storage-as-a-Service. The company also offers installation servi products. Hardware offerings are often sold with distinct maintenance services, described in the Services section above.

Revenue from hardware sales is recognized when control has transferred to the customer which typically occurs when the hardware has been shipped to the client, risk of loss has transferre a present right to payment for the hardware. In limited circumstances when a hardware sale includes client acceptance provisions, revenue is recognized either when client acceptance ha provisions have lapsed, or the company has objective evidence that the criteria specified in the client acceptance provisions have been satisfied. Revenue from hardware sales-type leases i lease term. Revenue from rentals and operating leases is recognized on a straight-line basis over the term of the rental or lease.

Revenue from as-a-Service arrangements is recognized either on a straight-line basis or on a usage basis as described in the Services section above. Installation services are accounted for with revenue recognized as the services are performed. Shipping and handling activities that occur after the client has obtained control of a product are accounted for as an activity to fulfill rather than as an additional promised service and, therefore, no revenue is deferred and recognized over the shipping period.

Software

The company's software offerings include hybrid platform software solutions, which contain many of the company's strategic areas including Red Hat, automation, data and AI, security and su which primarily supports mission-critical systems for clients; and distributed infrastructure software, which provides operating systems for zSystems and Power Systems hardware. These of and open-source software, and many can be delivered entirely or partially through as-a-Service or cloud delivery models, while others are delivered as on-premise software licenses.

Revenue from proprietary perpetual (one-time charge) license software is recognized at a point in time at the inception of the arrangement when control transfers to the client, if the softwa contract support (PCS) offered by the company.

Revenue from proprietary term license software is recognized at a point in time for the committed term of the contract, unless consideration depends on client usage, in which case reve occurs.

Proprietary term licenses often have a one-month contract term due to client termination rights, in which case, revenue would be recognized in that month for both the license and PCS. C existing IBM term license software into perpetual license software plus PCS. When proprietary term license software is converted to perpetual license software, the consideration becon therefore, revenue for the perpetual license is recognized upon conversion, consistent with the accounting for other perpetual licenses, as described above. PCS revenue is recognized as d

The company also has open-source software offerings. Since open-source software is offered under an open-source licensing model and therefore, the license is available for free, the stand
when the license is sold with PCS or other products and services, no consideration is allocated to the license when it is a distinct performance obligation and therefore no revenue is rec
transfers to the client. Revenue is recognized over the PCS period. In certain cases, open-source software is bundled with proprietary software and, if the open-source software is not cons
(e.g., Cloud Pak) is accounted for under a proprietary software model. Cloud Paks can be sold either as perpetual or committed-term software licenses, both of which are described above.

Revenue from PCS is recognized over the contract term on a straight-line basis because the company is providing a service of standing ready to provide support, when-and-if needed, ar
upgrades on a when-and-if available basis over the contract term.

Revenue from software hosting or Software-as-a-Service (SaaS) arrangements is recognized either on a straight-line basis or on a usage basis as described in the Services section above
the rights provided to the client (e.g., ownership of a license, contract termination provisions and the feasibility of the client to operate the software) are considered in determining whether the
arrangements that include a software license, the associated revenue is recognized in accordance with the software license recognition policy above rather than over time as a service.

Financing

Financing income attributable to sales-type leases, direct financing leases and loans is recognized on the accrual basis using the effective interest method. Operating lease income is reco
the term of the lease.

Standalone Selling Price

The company allocates the transaction price to each performance obligation on a relative standalone selling price basis. The standalone selling price (SSP) is the price at which the compa
service separately to a client. In most cases, the company is able to establish SSP based on the observable prices of products or services sold separately in comparable circumstances to si
establishes SSP ranges for its products and services which are reassessed on a periodic basis or when facts and circumstances change.

In certain instances, the company may not be able to establish a SSP range based on observable prices, and as a result, the company estimates SSP. The company estimates SSP by co
but not limited to, overall market conditions, including geographic or regional specific factors, internal costs, profit objectives and pricing practices. Additionally, in certain circumstances, the
product or service by applying the residual approach. Estimating SSP is a formal process that includes review and approval by the company's management.

Costs, Warranties, Shipping and Handling

Services Costs

Recurring operating costs for services contracts are recognized as incurred. For fixed-price design and build contracts, the costs of external hardware and software accounted for under th
are deferred and recognized based on the labor costs incurred to date (i.e., the measure of progress), as a percentage of the total estimated labor costs to fulfill the contract as co
performance obligations. Certain eligible, nonrecurring costs (i.e., setup costs) incurred in the initial phases of business process outsourcing contracts and other cloud-based services contrac
arrangements, are capitalized when the costs relate directly to the contract, the costs generate or enhance resources of the company that will be used in satisfying the performance obliga
expected to be recovered. These costs consist of transition and setup costs related to the provisioning, configuring, implementation and training and other deferred fulfillment costs, includin
in services contracts (i.e., prepaid software or prepaid maintenance). Capitalized costs are amortized on a straight-line basis over the expected period of benefit, which includes anticipate
consistent with the transfer to the client of the services to which the asset relates. Additionally, fixed assets associated with these contracts are capitalized and depreciated on a straight-lin
of the asset. If an asset is contract specific, then the depreciation period is the shorter of the useful life of the asset or the contract term. Amounts paid to clients in excess of the fair value o
process outsourcing arrangements are deferred and amortized on a straight-line basis as a reduction of revenue over the expected period of benefit. The company performs periodic rev
deferred contract transition and setup costs. If the carrying amount is deemed not recoverable, an impairment loss is recognized. Refer to note D, "Revenue Recognition," for the amount of
December 31, 2022 and 2021.

In situations in which a business process outsourcing or other cloud-based services contract is terminated, the terms of the contract may require the client to reimburse the company fo
receivable, unamortized deferred contract costs and additional costs incurred by the company to transition the services.

Software Costs

Costs that are related to the conceptual formulation and design of licensed software programs are expensed as incurred to research, development and engineering expense; costs that a
product after technological feasibility has been established are capitalized as an intangible asset. Capitalized amounts are amortized on a straight-line basis over periods ranging up to three
cost within cost of sales. The company performs periodic reviews to ensure that unamortized program costs remain recoverable from future revenue. Costs to support or service licensed pro
within cost of sales as incurred.

The company capitalizes certain costs that are incurred to purchase or develop internal-use software. Internal-use software programs also include software used by the company to deliv
client does not receive a license to the software and the company has no substantive plans to market the software externally. Capitalized costs are amortized on a straight-line basis over pe
are recorded in selling, general and administrative expense or cost of sales, depending on whether the software is used by the company in revenue generating transactions. Additionally,
types of implementation costs and amortize them over the term of the arrangement when the company is a customer in a cloud-computing arrangement.

Incremental Costs of Obtaining a Contract

Incremental costs of obtaining a contract (e.g., sales commissions) are capitalized and amortized on a straight-line basis over the expected customer relationship period if the company e
expected customer relationship period, determined based on the average customer relationship period, including expected renewals, for each offering type, is three years. Expected renew
expected customer relationship period if commission amounts paid upon renewal are not commensurate with amounts paid on the initial contract. Incremental costs of obtaining a contract in
incurs to obtain a contract that it would not have incurred if the contract had not been obtained. The company has determined that certain commissions programs meet the requirements t
programs are not subject to capitalization as the commission expense is paid and recognized as the related revenue is recognized. Additionally, as a practical expedient, the company exp
incurred if the amortization period would have been a year or less. These costs are included in selling, general and administrative expenses.

Product Warranties

The company offers warranties for its hardware products that generally range up to three years, with the majority being either one or three years. Any cost of standard warranties is accrue
is recognized. The company estimates its standard warranty costs for products based on historical warranty claim experience and estimates of future spending and applies this estimate
under warranty. Estimated future costs for warranties applicable to revenue recognized in the current period are charged to cost of sales. The warranty liability is reviewed quarterly to verify t
obligation based on the anticipated expenditures over the balance of the obligation period. Adjustments are made when actual warranty claim experience differs from estimates. Costs from
contracts, including extended warranty contracts, are recognized as incurred.

Revenue from extended warranty contracts is initially recorded as deferred income and subsequently recognized on a straight-line basis over the delivery period because the company is p
to provide services over such term.

Refer to note R, "Commitments & Contingencies," for additional information.

Shipping and Handling

Costs related to shipping and handling are recognized as incurred and included in cost in the Consolidated Income Statement.

Selling, General and Administrative

Selling, General and Administrative

Selling, general and administrative (SG&A) expense is charged to income as incurred, except for certain sales commissions, which are capitalized and amortized. For further infor
commissions, see "Incremental Costs of Obtaining a Contract" above. Expenses of promoting and selling products and services are classified as selling expense and, in addition to sales c
compensation, advertising and travel. General and administrative expense includes such items as compensation, legal costs, office supplies, non-income taxes, insurance and office rental. In
expense includes other operating items such as an allowance for credit losses, workforce rebalancing charges for contractually obligated payments to employees terminated in the ongoing c
related to business combinations, amortization of certain intangible assets and environmental remediation costs.

Advertising and Promotional Expense

Advertising and Promotional Expense

The company expenses advertising and promotional costs as incurred. Cooperative advertising reimbursements from vendors are recorded net of advertising and promotional expense
advertising and promotional expense is incurred.
Advertising and promotional expense, which includes media, agency and promotional expense, was $1,330 million, $1,413 million and $1,509 million in 2022, 2021 and 2020, respectively, a
the Consolidated Income Statement.

Research, Development and Engineering

Research, Development and Engineering

Research, development and engineering (RD&E) costs are expensed as incurred. Software costs that are incurred to produce the finished product after technological feasibility has bee
intangible asset.

Intellectual Property and Custom Development Income

Intellectual Property and Custom Development Income

The company licenses and sells the rights to certain of its intellectual property (IP) including internally developed patents, trade secrets and technological know-how. Certain IP transac
royalty-based and others are transaction-based sales/other transfers. Income from licensing arrangements is recognized at the inception of the license term if the nature of the company's pro
company's intellectual property as it exists at that point in time (i.e., the license is functional intellectual property) and control has transferred to the client. Income is recognized over time if th
is to provide a right to access the company's intellectual property throughout the license period (i.e., the license is symbolic intellectual property), such as a trademark license. Income from
recognized at the later of when the subsequent sale or usage occurs or the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially s
into cross-licensing arrangements of patents, and income from these arrangements is recognized when control transfers to the customer. In addition, the company earns income from certain
strategic technology partners and specific clients. The company records the income from these projects over time as the company satisfies the performance obligation if the fee is nonrefund
ultimate success of the project.

Other (Income) and Expense

Other (Income) and Expense

Components of other (income) and expense are as follows:

($ in millions)

For the year ended December 31:		2022	
Other (income) and expense			
Foreign currency transaction losses/(gains)*	$	(643)	$
(Gains)/losses on derivative instruments		225	
Interest income		(162)	
Net (gains)/losses from securities and investment assets		278	
Retirement-related costs/(income)		6,548 **	
OtherÈ		(443)	
Total other (income) and expense	$	5,803	$

* The company uses financial hedging instruments to limit specific currency risks related to foreign currency-based transactions. The hedging program does not hedge 100 percent of currency exposures and defers, vers
Refer to note T, "Derivative Financial Instruments," for additional information on foreign exchange risk.

** Includes a one-time, non-cash pension settlement charge of $5.9 billion. Refer to note V, "Retirement-Related Benefits," for additional information.

È Other primarily consists of (gains)/losses from divestitures, dispositions of land/buildings and other.

Government Assistance

Government Assistance

The company receives grants from governments and government agencies (government) in support of certain of the company's business activities, primarily related to research, job creation,
received in the form of cash as either a recovery for expenses incurred or as an incentive for meeting certain requirements as agreed to in the grant, with terms ranging from one to five ye
against Cost, SG&A and RD&E in the Consolidated Income Statement based on the nature of the grant and the expense being offset once the conditions and restrictions of the grant hav
received from the government. When a grant is received before conditions of the grant have been met, the grant is recorded in other accrued expenses and liabilities or other liabilities in th
the year ended December 31, 2022, grants recorded in the company's Consolidated Financial Statements were not material.

Business Combinations and Intangible Assets Including Goodwill

Business Combinations and Intangible Assets Including Goodwill

The company accounts for business combinations using the acquisition method and accordingly, the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in t
at their acquisition date fair values. Contract assets and contract liabilities are measured in accordance with the guidance on revenue recognition. Goodwill represents the excess of the p
net assets, including the amount assigned to identifiable intangible assets. The primary drivers that generate goodwill are the value of synergies between the acquired entities and the com
workforce, neither of which qualifies as a separately identifiable intangible asset. Goodwill recorded in an acquisition is assigned to applicable reporting units based on expected revenues
intangible assets with finite lives are amortized over their useful lives. Amortization of completed technology is recorded in cost, and amortization of all other intangible assets is recorded in
costs, including advisory, legal, accounting, valuation and pre-close and other
costs, are typically expensed in the periods in which the costs are incurred and are recorded in SG&A expense. The results of operations of acquired businesses are included in the Consolid
acquisition date.

Impairment

Impairment

Long-lived assets, other than goodwill, are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The impairment tes
cash flows and, if impaired, the asset is written down to fair value based on either discounted cash flows or appraised values. Goodwill is tested for impairment at least annually, in the fourt
circumstances indicate an impairment may exist. The goodwill impairment test is performed at the reporting unit level, which is generally at the level of or one level below an operating segm

Depreciation and Amortization

Depreciation and Amortization

Property, plant and equipment are carried at cost and depreciated over their estimated useful lives using the straight-line method. The estimated useful lives of certain depreciable assets
years; building equipment, 10 to 20 years; land improvements, 20 years; production, engineering, office and other equipment, 2 to 20 years; and information technology equipment, 1.5 to
are amortized over the shorter of their estimated useful lives or the related lease term, rarely exceeding 25 years. Refer to the "Use of Estimates" section above for additional information a
technology equipment.

As noted within the "Software Costs" section of this note, capitalized software costs are amortized on a straight-line basis over periods ranging up to 3 years. Other intangible assets are am
20 years.

Environmental

Environmental

The cost of internal environmental protection programs that are preventative in nature are expensed as incurred. When a cleanup program becomes likely, and it is probable that the compan
costs can be reasonably estimated, the company accrues remediation costs for known environmental liabilities.

Asset Retirement Obligations

Asset Retirement Obligations

Asset retirement obligations (ARO) are legal obligations associated with the retirement of long-lived assets and the liability is initially recorded at fair value. The related asset retirement cos
carrying amount of the related assets by the same amount as the liability. Asset retirement costs are subsequently depreciated over the useful lives of the related assets. Subsequent to initi
period-to-period changes in the ARO liability resulting from the passage of time in interest expense and revisions to either the timing or the amount of the original expected cash flows to the

Defined Benefit Pension and Nonpension Postretirement Benefit Plans, Defined Contribution Plans

Defined Benefit Pension and Nonpension Postretirement Benefit Plans

The funded status of the company's defined benefit pension plans and nonpension postretirement benefit plans (retirement-related benefit plans) is recognized in the Consolidated Balance Sh
as the difference between the fair value of plan assets and the benefit obligation at December 31, the measurement date. For defined benefit pension plans, the benefit obligation is the projec
represents the actuarial present value of benefits expected to be paid upon retirement based on employee services already rendered and estimated future compensation levels. For the nonp
the benefit obligation is the accumulated postretirement benefit obligation (APBO), which represents the actuarial present value of postretirement benefits attributed to employee services alre
assets represents the current market value of assets held in an irrevocable trust fund, held for the sole benefit of participants, which are invested by the trust fund. Overfunded plans, with the
the benefit obligation, are aggregated and recorded as a prepaid pension asset equal to this excess. Underfunded plans, with the benefit obligation exceeding the fair value of plan assets,
retirement and nonpension postretirement benefit obligation equal to this excess.

The current portion of the retirement and nonpension post-retirement benefit obligations represents the actuarial present value of benefits payable in the next 12 months exceeding the fair v
plan-by-plan basis. This obligation is recorded in compensation and benefits in the Consolidated Balance Sheet.

Net periodic pension and nonpension postretirement benefit cost/(income) is recorded in the Consolidated Income Statement and includes service cost, interest cost, expected return on plan costs/(credits) and (gains)/losses previously recognized as a component of other comprehensive income/(loss) (OCI) and amortization of the net transition asset remaining in accumulated (AOCI). The service cost component of net benefit cost is recorded in Cost, SG&A and RD&E in the Consolidated Income Statement (unless eligible for capitalization) based on the employ components of net benefit cost are presented separately from service cost within other (income) and expense in the Consolidated Income Statement.

(Gains)/losses and prior service costs/(credits) are recognized as a component of OCI in the Consolidated Statement of Comprehensive Income as they arise. Those (gains)/losses a subsequently recognized as a component of net periodic
cost/(income) pursuant to the recognition and amortization provisions of applicable accounting guidance. (Gains)/losses arise as a result of differences between actual experience and assu actuarial assumptions. Prior service costs/(credits) represent the cost of benefit changes attributable to prior service granted in plan amendments.

The measurement of benefit obligations and net periodic cost/(income) is based on estimates and assumptions approved by the company's management. These valuations reflect the terr specific information such as compensation, age and years of service, as well as certain assumptions, including estimates of discount rates, expected return on plan assets, rate of compe rates and mortality rates.

Defined Contribution Plans

The company's contribution for defined contribution plans is recorded when the employee renders service to the company. The charge is recorded in Cost, SG&A and RD&E in the Consol the employees' respective functions.

Stock-Based Compensation

Stock-Based Compensation

Stock-based compensation represents the cost related to stock-based awards granted to employees. The company measures stock-based compensation cost at the grant date, based on t and recognizes the cost on a straight-line basis (net of estimated forfeitures) over the employee requisite service period. The company grants its employees Restricted Stock Units (RSUs), i Units (RRSUs); Performance Share Units (PSUs); and stock options. RSUs are stock awards granted to employees that entitle the holder to shares of common stock as the award vests, typic PSUs are stock awards where the number of shares ultimately received by the employee depends on performance against specified targets and typically vest over a three-year period. Over t of shares that will be issued is adjusted based upon the probability of achievement of performance targets. The ultimate number of shares issued and the related compensation cost recogn comparison of the final performance metrics to the specified targets. Dividend equivalents are not paid on the stock awards described above. The fair value of the awards is determined ar the company's stock price, adjusted for the exclusion of dividend equivalents where applicable and for PSUs assumes that performance targets will be achieved. The company estimates th Black-Scholes valuation model. Stock-based compensation cost is recorded in Cost, SG&A, and RD&E in the Consolidated Income Statement based on the employees' respective functions

The company records deferred tax assets for awards that result in deductions on the company's income tax returns, based on the amount of compensation cost recognized and the relevant between the deferred tax assets recognized for financial reporting purposes and the actual tax deduction reported on the income tax return are recorded as a benefit or expense to th Consolidated Income Statement.

Income Taxes

Income Taxes

Income tax expense is based on reported income before income taxes. Deferred income taxes reflect the tax effect of temporary differences between asset and liability amounts that ar purposes and the amounts that are recognized for income tax purposes. These deferred taxes are measured by applying currently enacted tax laws. The company includes Global Intan measuring deferred taxes. Valuation allowances are recognized to reduce deferred tax assets to the amount that will more likely than not be realized. In assessing the need for a valuation all available evidence for each jurisdiction including past operating results, estimates of future taxable income and the feasibility of ongoing tax planning strategies/actions. When the company amount of deferred tax assets that can be realized, the valuation allowance is adjusted with a corresponding impact to income tax expense in the period in which such determination is made

The company recognizes additional tax liabilities when the company believes that certain positions may not be fully sustained upon review by tax authorities. Benefits from tax positions a of benefit that is greater than 50 percent likely of being realized upon settlement. The noncurrent portion of tax liabilities is included in other liabilities in the Consolidated Balance Sheet. becomes available which causes the company to change its judgment regarding the adequacy of existing tax liabilities, such changes to tax liabilities will impact income tax expense in the p made. Interest and penalties, if any, related to accrued liabilities for potential tax assessments are included in income tax expense.

Translation of Non-U.S. Currency Amounts

Translation of Non-U.S. Currency Amounts

Assets and liabilities of non-U.S. subsidiaries that have a local functional currency are translated to U.S. dollars at year-end exchange rates. Translation adjustments are recorded in O translated at weighted-average rates of exchange prevailing during the year.

Inventory, property, plant and equipment—net and other non-monetary assets and liabilities of non-U.S. subsidiaries and branches that operate in U.S. dollars are translated at the approxim the company acquired the assets or
liabilities. All other assets and liabilities denominated in a currency other than U.S. dollars are translated at year-end exchange rates with the transaction gain or loss recognized in other expense items are translated at the weighted-average rates of exchange prevailing during the year. These translation gains and losses are included in net income for the period in which exc

Derivative Financial Instruments

Derivative Financial Instruments

The company uses derivative financial instruments primarily to manage foreign currency and interest rate risk, and to a lesser extent, equity and credit risk. The company does not use trading or speculative purposes. Derivatives that qualify for hedge accounting can be designated as either cash flow hedges, net investment hedges, or fair value hedges. The company ma economically hedge certain of its risks, even when hedge accounting does not apply, or the company elects not to apply hedge accounting.

Derivatives are recognized in the Consolidated Balance Sheet at fair value on a gross basis as either assets or liabilities and classified as current or noncurrent based upon whether the ma or greater than 12 months.

Changes in the fair value of derivatives designated as a cash flow hedge are recorded, net of applicable taxes, in OCI and subsequently reclassified into the same income statement line underlying hedged item is recognized in earnings. Effectiveness for net investment hedging derivatives is measured on a spot-to-spot basis. Changes in the fair value of highly effective net other non-derivative financial instruments designated as net investment hedges are recorded as foreign currency translation adjustments in AOCI. Changes in the fair value of the portion of excluded from the assessment of effectiveness are recorded in interest expense and cost of financing. Changes in the fair value of interest rate derivatives designated as a fair value hedg fair value of the underlying hedged exposure are recorded in interest expense and cost of financing. Changes in the fair value of derivatives not designated as hedges are reported in earn expense. See note T, "Derivative Financial Instruments," for further information.

The cash flows associated with derivatives designated as fair value and cash flow hedges are reported in cash flows from operating activities in the Consolidated Statement of Cash designated as net investment hedges and derivatives not designated as hedges are reported in cash flows from investing activities in the Consolidated Statement of Cash Flows. Cash fl hedges of foreign currency denominated debt directly associated with the settlement of the principal are reported in payments to settle debt in cash flows from financing activities in the Cons

Financial Instruments and Fair Value Measurement

Financial Instruments

In determining the fair value of its financial instruments, the company uses a variety of methods and assumptions that are based on market conditions and risks existing at each balance Assets & Liabilities," for further information. All methods of assessing fair value result in a general approximation of value, and such value may never actually be realized.

Fair Value Measurement

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The co liabilities based on the following fair value hierarchy:

- Level 1–Quoted prices (unadjusted) in active markets for identical assets or liabilities that can be accessed at the measurement date;
- Level 2–Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and
- Level 3–Unobservable inputs for the asset or liability.

When available, the company uses unadjusted quoted market prices in active markets to measure the fair value and classifies such items as Level 1. If quoted market prices are not availabl developed models that use current market-based or independently sourced market parameters such as interest rates and currency rates. Items valued using internally generated models ar level input or value driver that is significant to the valuation.

The determination of fair value considers various factors including interest rate yield curves and time value underlying the financial instruments. For derivatives and debt securities, the co
analysis using discount rates commensurate with the duration of the instrument.

In determining the fair value of financial instruments, the company considers certain market valuation adjustments to the "base valuations" calculated using the methodologies describe
market participants would consider in determining fair value:

- Counterparty credit risk adjustments are applied to financial instruments, taking into account the actual credit risk of a counterparty as observed in the credit default swap market to dete
instrument.
- Credit risk adjustments are applied to reflect the company's own credit risk when valuing all liabilities measured at fair value. The methodology is consistent with that applied in developi
adjustments, but incorporates the company's own credit risk as observed in the credit default swap market.

The company holds investments primarily in time deposits, certificates of deposit, and U.S. government debt that are designated as available-for-sale. The primary objective of the company's
is to maintain principal by investing in very liquid and highly rated investment grade securities.

Available-for-sale securities are measured for impairment on a recurring basis by comparing the security's fair value with its amortized cost basis. If the fair value of the security falls below its
fair value is recognized in the period the impairment is identified when the loss is due to credit factors. The change in fair value due to non-credit factors is recorded in other comprehensive i
intend to sell and has the ability to hold the investment. The company's standard practice is to hold all of its debt security investments classified as available-for-sale until maturity. There w
and no material non-credit impairments recognized for the years ended December 31, 2022, 2021 and 2020.

Certain nonfinancial assets such as property, plant and equipment, land, goodwill and intangible assets are subject to nonrecurring fair value measurements if they are deemed to be impair
nonfinancial assets depend on the type of asset. There were no material impairments of nonfinancial assets for the years ended December 31, 2022, 2021 and 2020.

Cash Equivalents

Cash Equivalents
All highly liquid investments with maturities of three months or less at the date of purchase are considered to be cash equivalents.

Marketable Securities

Marketable Securities
The company measures equity investments at fair value with changes recognized in net income.

Debt securities included in current assets represent securities that are expected to be realized in cash within one year of the balance sheet date. Long-term debt securities and allian
investments and sundry assets. At December 31, 2022 and 2021, alliance equity securities were $142 million and $159 million, respectively. Debt securities are considered available-for-sa
unrealized gains and losses, net of applicable taxes, in OCI. The realized gains and losses on available-for-sale debt securities are included in other (income) and expense in the Conso
gains and losses are calculated based on the specific identification method.

Inventory

Inventory
Raw materials, work in process and finished goods are stated at the lower of average cost or net realizable value.

Notes and Accounts Receivable-Trade and Contract Assets

Notes and Accounts Receivable—Trade and Contract Assets
The company classifies the right to consideration in exchange for products or services transferred to a client as either a receivable or a contract asset. A receivable is a right to consideratio
to a contract asset which is a right to consideration that is conditional upon factors other than the passage of time. The majority of the company's contract assets represent unbilled amounts
contracts when the cost-to-cost method of revenue recognition is utilized, revenue recognized exceeds the amount billed to the client, and the right to consideration is subject to milesto
Contract assets are generally classified as current and are recorded on a net basis with deferred income (i.e., contract liabilities) at the contract level.

Financing Receivables

Financing Receivables
Financing receivables primarily consist of client loan and installment payment receivables (loans) and investment in sales-type and direct financing leases (collectively referred to as client fin
financing receivables. Leases are accounted for in accordance with lease accounting standards. Loans, which are generally unsecured, are primarily for software and services. Commercia
for working capital financing to distributors and resellers of IBM products and services. Financing receivables are classified as either held for sale or held for investment, depending on the
the underlying contract for the foreseeable future or until maturity or payoff. Loans and commercial financing receivables are recorded at amortized cost, which approximates fair value.

Transfers of Financial Assets

Transfers of Financial Assets
The company enters into arrangements to sell certain financial assets (primarily notes and accounts receivable–trade and financing receivables) to third-party financial institutions. For
considered a sale, the asset must be legally
isolated from the company and the purchaser must have control of the asset. Determining whether all the requirements have been met includes an evaluation of legal considerations, the
involvement with the assets transferred and any other relevant consideration. When the true sale criteria are met, the company derecognizes the carrying value of the financial asset tran
loss on the sale. The proceeds from these arrangements are reflected as cash provided by operating activities in the Consolidated Statement of Cash Flows. If the true sale criteria are n
secured borrowing and the financial asset remains on the Consolidated Balance Sheet with proceeds from the sale recognized as debt and recorded as cash flows from financing activiti
Cash Flows.

Arrangements to sell notes and accounts receivable–trade are used in the normal course of business as part of the company's cash and liquidity management. Facilities primarily in the U
enable the company to sell certain notes and accounts receivable–trade, without recourse, to third parties in order to manage credit, collection, concentration and currency risk. The gross
under these arrangements were $3.3 billion, $1.8 billion and $2.2 billion for the years ended December 31, 2022, 2021 and 2020, respectively. Within the notes and accounts receivables
the Consolidated Balance Sheet, $1.0 billion, $0.7 billion, and $0.4 billion remained uncollected from customers at December 31, 2022, 2021 and 2020, respectively. The fees and the net g
transfer of receivables were not material for any of the periods presented. Refer to note L, "Financing Receivables," for more information on transfers of financing receivables.

Allowance for Credit Losses - Financing Receivables

Allowance for Credit Losses
Receivables are recorded concurrent with billing and shipment of a product and/or delivery of a service to customers. An allowance for uncollectible trade receivables and contract asset
specific customer situations, current and future expected economic conditions, past experiences of losses, as well as an assessment of potential recoverability of the balance due.

The company estimates its allowances for expected credit losses for financing receivables by considering past events, including any historical default, historical concessions and resulting
economic conditions, any non-freestanding mitigating credit enhancements, and certain forward-looking information, including reasonable and supportable forecasts. The methodologies th
financing receivables reserves, which are applied consistently to its different portfolios, are as follows:

Individually Evaluated–The company reviews all financing receivables considered at risk quarterly, and performs an analysis based upon current information available about the client,
reports, published credit ratings, current market-implied credit analysis, as well as collateral net of repossession cost, prior collection history and current and future expected economic co
dependent, impairment is measured using the fair value of the collateral when foreclosure is probable. Using this information, the company determines the expected cash flow for the rece
the potential loss and the probability of loss. For those accounts in which the loss is probable, the company records a specific reserve.

Collectively Evaluated–The company determines its allowances for credit losses for collectively evaluated financing receivables (unallocated) based on two portfolio segments: client fin
financing receivables. The company further segments the portfolio into three classes: Americas, Europe/Middle East/Africa (EMEA) and Asia Pacific.

For client financing receivables, the company uses a credit loss model to calculate allowances based on its internal loss experience and current conditions and forecasts, by class of financi
an unallocated reserve that is calculated by applying a reserve rate to its portfolio, excluding accounts that have been individually evaluated and specifically reserved. This reserve rate is ba
default, term and loss history. The allowance is adjusted quarterly for expected recoveries of amounts that were previously written off or are expected to be written off. Recoveries cannot e
previous write-off or expected write-off.

The company considers forward-looking macroeconomic variables such as gross domestic product, unemployment rates, equity prices and corporate profits when quantifying the impac
financing receivables allowance for expected credit losses. Macroeconomic variables may vary by class of financing receivables based on historical experiences, portfolio composition and
also considers the impact of current conditions and economic forecasts relating to specific industries, geographical areas, and client credit ratings, in addition to performing a qualitative re
portfolio. Under this approach, forecasts of these variables over two years are considered reasonable and supportable. Beyond two years, the company reverts to long-term average loss ex
require the use of judgment, particularly in times of economic uncertainty.

The portfolio of commercial financing receivables is short term in nature and any allowance for these assets is estimated based on a combination of write-off history and current economic c
evaluated accounts.

Other Credit-Related Policies
Past Due–The company views receivables as past due when payment has not been received after 90 days, measured from the original billing date.

Non-Accrual–Non-accrual assets include those receivables (impaired loans or nonperforming leases) with specific reserves and other accounts for which it is likely that the company will b according to original terms of the lease or loan agreement. Interest income recognition is discontinued on these receivables. Cash collections are first applied as a reduction to principal outsta of principal payments outstanding is recognized as interest income. Receivables may be removed from non-accrual status, if appropriate, based upon changes in client circumstances, such

Write-Off–Receivable losses are charged against the allowance in the period in which the receivable is deemed uncollectible. Subsequent recoveries, if any, are credited to the allowance. Writ reserves occur to the extent that the customer is no longer in operation and/or there is no reasonable expectation of additional collections or repossession.

Leases

Leases
The company conducts business as both a lessee and a lessor. In its ordinary course of business, the company enters into leases as a lessee for property, plant and equipment. The co equipment, mainly through its Financing segment.

When procuring goods or services, or upon entering into a contract with its clients, the company determines whether an arrangement contains a lease at its inception. As part of that evaluati there is an implicitly or explicitly identified asset in the arrangement and whether the company, as the lessee, or the client, if the company is the lessor, has the right to control the use of that

Accounting for Leases as a Lessee

Accounting for Leases as a Lessee
When the company is the lessee, all leases with a term of more than 12 months are recognized as right-of-use (ROU) assets and associated lease liabilities in the Consolidated Balance Shee at the lease commencement date and determined using the present value of the lease payments not yet paid and the company's incremental borrowing rate, which approximates the rate a on a secured basis in the country where the lease was executed. The interest rate implicit in the lease is generally not determinable in transactions where the company is the lessee. The l adjusted for any initial direct costs (IDCs), prepaid rent and lease incentives. The company's variable lease payments generally relate to payments tied to various indexes, non-lease c contractual minimum fixed amount.

Operating leases are included in operating right-of-use assets–net, current operating lease liabilities and operating lease liabilities in the Consolidated Balance Sheet. Finance leases equipment, short-term debt and long-term debt in the Consolidated Balance Sheet. The lease term includes options to extend or terminate the lease when it is reasonably certain that the co

The company made a policy election to not recognize leases with a lease term of 12 months or less in the Consolidated Balance Sheet.

For all asset classes, the company has elected the lessee practical expedient to combine lease and non-lease components (e.g., maintenance services) and account for the combined u significant portion of the company's lease portfolio is real estate, which are mainly accounted for as operating leases, and are primarily used for corporate offices and data centers. The avera approximately five years. The company also has equipment leases, such as IT equipment and vehicles, which have lease terms that range from two to five years. For certain of these operatin applies a portfolio approach to account for the lease assets and lease liabilities.

Accounting for Leases as a Lessor

Accounting for Leases as a Lessor
The company typically enters into leases as an alternative means of realizing value from equipment that it would otherwise sell. Assets under lease primarily include new and used IBM eq consists of zSystems, Power and Storage products.

Lease payments due to IBM are typically fixed and paid in equal installments over the lease term. The majority of the company's leases do not contain variable payments that are depen lease payments that do not depend on an index or a rate (e.g., property taxes), that are paid directly by the company and are reimbursed by the client, are recorded as revenue, along w which collection of these payments is probable. Payments that are made directly by the client to a third party, including certain property taxes and insurance, are not considered part of varia recorded by the company. The company has made a policy election to exclude from consideration in contracts all collections from sales and other similar taxes.

The company's payment terms for leases are typically unconditional. Therefore, in an instance when the client requests to terminate the lease prior to the end of the lease term, the client w remaining lease payments in full. At the end of the lease term, the company allows the client to either return the equipment, purchase the equipment at the then-current fair market value o renew the lease based on mutually agreed upon terms.

When lease arrangements include multiple performance obligations, the company allocates the consideration in the contract between the lease components and the non-lease components o basis.

Sales-Type and Direct Financing Leases
For a sales-type or direct financing lease, the carrying amount of the asset is derecognized from inventory and a net investment in the lease is recorded. For a sales-type lease, the net in at commencement date as the sum of the lease receivable and the estimated residual value of the equipment less unearned income and allowance for credit losses. Any selling profit or los recorded at lease commencement. Selling profit or loss is presented on a gross basis when the company enters into a lease to realize value from a product that it would otherwise sell in segment reporting, the net investment in sales-type leases excluding the allowance for credit losses is recognized as hardware revenue in the Infrastructure segment, while the estimated r income is recognized as a reduction in revenue in the Other revenue category and represents the portion of fair value retained by the company. In transactions where the company ent generating revenue by providing financing, the selling profit or loss is presented on a net basis. Under a sales-type lease, initial direct costs are expensed at lease commencement. Over recognizes finance income on the net investment in the lease and any variable lease payments, which are not included in the net investment in the lease.

For a direct financing lease, the net investment in the lease is measured similarly to a sales-type lease, however, the net investment in the lease is reduced by any selling profit. In a direct fi initial direct costs are deferred at commencement and recognized over the lease term. The company rarely enters into direct financing leases.

The estimated residual value represents the estimated fair value of the equipment under lease at the end of the lease. The company estimates the future fair value of leased equipment by us current market for new and used equipment and obtaining forward-looking product information such as marketing plans and technology innovations. The company optimizes the recovery o arrangements with, or selling leased equipment to existing clients, and periodically reassesses the realizable value of its lease residual values. Anticipated decreases in specific future resid other-than-temporary are recognized immediately upon identification and are recorded as adjustments to the residual value estimate and unearned income, which reduces current period respectively.

Common Stock

Common Stock
Common stock refers to the $.20 par value per share capital stock as designated in the company's Certificate of Incorporation. Treasury stock is accounted for using the cost method. When t is computed and recorded using a weighted-average basis.

Earnings Per Share of Common Stock

Earnings Per Share of Common Stock
Earnings per share (EPS) is computed using the two-class method, which determines EPS for each class of common stock and participating securities according to dividends and divide participation rights in undistributed earnings. Basic EPS of common stock is computed by dividing net income by the weighted-average number of common shares outstanding for the perio computed on the basis of the weighted-average number of shares of common stock plus the effect of dilutive potential common shares outstanding during the period using the treasury stock shares include outstanding stock awards, convertible notes and stock options.

Accounting Changes

New Standards to be Implemented
Disclosures of Supplier Finance Program Obligations
Standard/Description–Issuance date: September 2022. This guidance requires an entity to provide certain interim and annual disclosures about the use of supplier finance programs goods or services.

Effective Date and Adoption Considerations–The guidance was effective January 1, 2023 with certain annual disclosures required beginning in 2024 and early adoption was pe guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters–As the guidance is a change to disclosures only, the company does not expect it to have a material impact in the company's use of supplier finance programs as of December 31, 2022 was not material.

Troubled Debt Restructurings and Vintage Disclosures
Standard/Description–Issuance date: March 2022. This eliminates the accounting guidance for troubled debt restructurings and requires an entity to apply the general loan modification including those made to customers experiencing financial difficulty, to determine whether the modification results in a new loan or a continuation of an existing loan. The guidance also requ write-offs by year of origination for financing receivables and net investment in leases.

Effective Date and Adoption Considerations–The amendment was effective January 1, 2023 and early adoption was permitted. The company adopted the guidance as of the effec

Effect on Financial Statements or Other Significant Matters–The guidance is not expected to have a material impact in the consolidated financial results.

Standards Implemented
Disclosures about Government Assistance
Standard/Description–Issuance date: November 2021. This guidance requires an entity to provide certain annual disclosures about government assistance received and accounted fo accounting model by analogy.

Effective Date and Adoption Considerations–The guidance was effective for annual disclosures beginning in 2022 and early adoption was permitted. The company adopted the gu

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results. Refer to note A, "Significant information.

Lessors–Certain Leases with Variable Lease Payments
Standard/Description–Issuance date: July 2021. This guidance modifies a lessor's accounting for certain leases with variable lease payments that resulted in the recognition of a day-c the arrangement to be profitable overall. The amendment requires these types of lease contracts to be classified as operating leases which eliminates any recognition of a day-one loss.

Effective Date and Adoption Considerations–The amendment was effective January 1, 2022 and early adoption was permitted. The company adopted the guidance on a prospecti

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results.

Revenue Contracts with Customers Acquired in a Business Combination
Standard/Description–Issuance date: October 2021. This guidance requires that an acquirer recognize and measure contract assets and contract liabilities acquired in a business comb guidance, as if it had originated the contracts. Deferred revenue acquired in a business combination is no longer required to be measured at its fair value, but rather will generally be re acquiree.

Effective Date and Adoption Considerations–The amendment was effective January 1, 2023 and early adoption was permitted, including adoption in an interim period. The co October 1, 2021 using the retrospective transition method whereby the new guidance was applied to all business combinations that occurred on or after January 1, 2021.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results. The impact of the guidance in dependent on the nature and size of its acquisitions.

Simplifying the Accounting for Income Taxes
Standard/Description–Issuance date: December 2019. This guidance simplifies various aspects of income tax accounting by removing certain exceptions to the general principle of amends existing guidance to improve consistency in application.

Effective Date and Adoption Considerations–The guidance was effective January 1, 2021 and early adoption was permitted. The company adopted the guidance on a prospective

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results.

For all other standards that the company adopted in the periods presented, there was no material impact in the consolidated financial results.

Separation of Kyndryl

The historical results of Kyndryl have been presented as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods pres of discontinued operations excludes general corporate overhead costs which were historically allocated to Kyndryl, consistent with the company's management system, that did not mee in discontinued operations. Such allocations include labor and non-labor expenses related to IBM's corporate support functions (e.g., finance, accounting, tax, treasury, IT, HR, legal, amo support to Kyndryl and transferred to Kyndryl at separation. In addition, discontinued operations excludes the historical intercompany purchases and sales between IBM and Kyndryl that we

Remaining Performance Obligations

Remaining Performance Obligations
The remaining performance obligation (RPO) disclosure provides the aggregate amount of the transaction price yet to be recognized as of the end of the reporting period and an explanatio to recognize these amounts in revenue. It is intended to be a statement of overall work under contract that has not yet been performed and does not include contracts in which the custome as-a-Service, governmental, term software license and services offerings. The customer is not considered committed when they are able to terminate for convenience without payment of a includes estimates of variable consideration, except when the variable consideration is a sales-based or usage-based royalty promised in exchange for a license of intellectual property. A the company does not include contracts that have an original duration of one year or less. RPO estimates are subject to change and are affected by several factors, including terminations, periodic revalidations, adjustment for revenue that has not materialized and adjustments for currency.

Segments

In January 2022, IBM announced the divestiture of its healthcare software assets which closed in the second quarter of 2022. Refer to note F, "Acquisitions & Divestitures," for additional infor management structure to manage these assets outside of the Software segment prior to the divestiture. Beginning in the first quarter of 2022, the financial results of these assets are prese This change impacted the company's reportable segments, but did not impact its Consolidated Financial Statements. The prior-year periods have been recast to reflect this segment change

Segment Revenue and Pre-tax Income

The segments represent components of the company for which separate financial information is available that is utilized on a regular basis by the chief operating decision maker (the chief e to allocate resources and evaluate performance. The segments are determined based on several factors, including client base, homogeneity of products, technology, delivery channels and s

Certain transactions between the segments are recorded to other (income) and expense and are reflected in segment pre-tax income. These transactions predominately represent loans be segments to facilitate the acquisition of equipment and software used in IBM IaaS services arrangements.

The company utilizes globally integrated support organizations to realize economies of scale and efficient use of resources. As a result, a considerable amount of expense is shared by all of includes sales coverage, certain marketing functions and support functions such as Accounting, Treasury, Procurement, Legal, Human Resources, Chief Information Office, and Billing and C expenses are allocated based on measurable drivers of expense, e.g., headcount. When a clear and measurable driver cannot be identified, shared expenses are allocated on a financ company's management system, e.g., advertising expense is allocated based on the gross profits of the segments. A portion of the shared expenses, which are recorded in net income, are n expenses are associated with the elimination of internal transactions and other miscellaneous items.

The following tables reflect the results of continuing operations of the company's segments consistent with the management and measurement system utilized within the company. Perfo pre-tax income from continuing operations. These results are used by the chief operating decision maker, both in evaluating the performance of, and in allocating resources to, each of the s

Segment Assets and Other Items

To ensure the efficient use of the company's space and equipment, several segments may share leased or owned plant, property and equipment assets. Where assets are shared, landlord to one segment and is not allocated to each user segment. This is consistent with the company's management system and is reflected accordingly in the table below. In those cases, th between segment pre-tax income and segment assets.

Depreciation expense and capital expenditures that are reported by each segment also are consistent with the landlord ownership basis of asset assignment.

Financing amounts for interest income reflect the income associated with Financing's external client transactions, as well as the income from investment in cash and marketable securit expense reflect the expense associated with intercompany loans and secured borrowings supporting Financing's external client transactions. These secured borrowings are included in financing activities are recorded to other (income) and expense and are reflected in segment pre-tax income.

Financial Assets and Liabilities Not Measured At Fair Value

Financial Assets and Liabilities Not Measured at Fair Value

Short-Term Receivables and Payables

Short-term receivables (excluding the current portion of long-term receivables) and other investments are financial assets with carrying values that approximate fair value. Accounts pay
short-term debt (excluding the current portion of long-term debt and including short-term finance lease liabilities) are financial liabilities with carrying values that approximate fair value. If m
statements, these financial instruments would be classified as Level 3 in the fair value hierarchy, except for short-term debt which would be classified as Level 2.

Loans and Long-Term Receivables

Fair values are based on discounted future cash flows using current interest rates offered for similar loans to clients with similar credit ratings for the same remaining maturities. At Decembe
between the carrying amount and estimated fair value for loans and long-term receivables was immaterial. If measured at fair value in the financial statements, these financial instruments w
fair value hierarchy.

Long-Term Debt

Fair value of publicly traded long-term debt is based on quoted market prices for the identical liability when traded as an asset in an active market. For other long-term debt (including long-ter
a quoted market price is not available, an expected present value technique that uses rates currently available to the company for debt with similar terms and remaining maturities is used
amount of long-term debt was $46,189 million and $44,917 million, and the estimated fair value was $42,514 million and $49,465 million at December 31, 2022 and 2021, respectively. If m
statements, long-term debt (including the current portion) would be classified as Level 2 in the fair value hierarchy.

Cash Payments Lease Costs

Cash payments related to variable lease costs and short-term leases are not included in the measurement of operating and
liabilities

Goodwill

The company derecognized $484 million of goodwill related to the divestiture of its healthcare software assets.

Commitments

The company has applied the guidance requiring a guarantor to disclose certain types of guarantees, even if the likelihood of requiring the guarantor's performance is remote. The following
which the company is the guarantor.

Contingencies

The company records a provision with respect to a claim, suit, investigation or proceeding when it is probable that a liability has been incurred and the amount of the loss can be reasonabl
including any changes to such liabilities for the years ended December 31, 2022, 2021 and 2020 were not material to the Consolidated Financial Statements.

In accordance with the relevant accounting guidance, the company provides disclosures of matters for which the likelihood of material loss is at least reasonably possible. In addition, the co
on its consideration of other matters and qualitative factors, including the experience of other companies in the industry, and investor, customer and employee relations considerations.

With respect to certain of the claims, suits, investigations and proceedings discussed herein, the company believes at this time that the likelihood of any material loss is remote, given, for ex
rulings, and/or the strength of the company's defenses in those matters. With respect to the remaining claims, suits, investigations and proceedings discussed in this note, except as specifi
is unable to provide estimates of reasonably possible losses or range of losses, including losses in excess of amounts accrued, if any, for the following reasons. Claims, suits, investigati
uncertain, and it is not possible to predict the ultimate outcome of these matters. It is the company's experience that damage amounts claimed in litigation against it are unreliable and u
as such are not meaningful indicators of the company's potential liability. Further, the company is unable to provide such an estimate due to a number of other factors with respect to the
proceedings, including considerations of the procedural status of the matter in question, the presence of complex or novel legal theories, and/or the ongoing discovery and development of i
The company reviews claims, suits, investigations and proceedings at least quarterly, and decisions are made with respect to recording or adjusting provisions and disclosing reasonabl
(individually or in the aggregate), to reflect the impact and status of settlement discussions, discovery, procedural and substantive rulings, reviews by counsel and other information pertinent

Derivative Financial Instruments

The company operates in multiple functional currencies and is a significant lender and borrower in the global markets. In the normal course of business, the company is exposed to the i
foreign currency fluctuations, and to a lesser extent equity and commodity price changes and client credit risk. The company limits these risks by following established risk management po
use of derivatives, and, where cost effective, financing with debt in the currencies in which assets are denominated. For interest rate exposures, derivatives are used to better align rate mo
associated with the company's lease and other financial assets and the interest rates associated with its financing debt. Derivatives are also used to manage the related cost of debt. For fore
are used to better manage the cash flow volatility arising from foreign exchange rate fluctuations.

Offsetting Derivatives

In the Consolidated Balance Sheet, the company does not offset derivative assets against liabilities in master netting arran
offset receivables or payables recognized upon payment or receipt of cash collateral against the fair values of the related d
instruments.The company restricts the use of cash collateral received to rehypothecation, and therefore reports it in restric
Consolidated Balance Sheet

Derivatives, Methods of Accounting, Hedge Effectiveness

(3) The company's policy is to recognize all fair value changes in amounts excluded from effectiveness testing in net income each period.

Stock Options

Stock options are granted at an exercise price equal to the company's average high and low stock price on the date of gran
estimates the fair value of stock options at the date of grant using a Black-Scholes valuation model. Key inputs and assum
estimate the fair value of stock options include the grant price of the award, the expected option term, volatility of the com
risk-free rate and the company's dividend yield.

Option Settlement Policy

The company settles employee stock option exercises primarily with newly issued common shares and, occasionally, with

Employee Stock Purchase Plan

Effective April 1, 2022, the company increased the discount for eligible participants to purchase shares of IBM common s
Employee Stock Purchase Plan (ESPP) from 5 percent to 15 percent off the average market price on the date of purchase.
ESPP is considered compensatory under the accounting requirements for stock-based compensation.

Significant Accounting Policies (Tables)	12 Months Ended Dec. 31, 2022

Significant Accounting Policies

Schedule of other (income) and expense

($ in millions)

For the year ended December 31:	2022	2021	2020
Other (income) and expense			
Foreign currency transaction losses/(gains)*	$ (643)	$ (204)	$ 114
(Gains)/losses on derivative instruments	225	205	(101)
Interest income	(162)	(52)	(105)
Net (gains)/losses from securities and investment assets	278	(133)	(22)
Retirement-related costs/(income)	6,548 **	1,282	1,073
Other[È]	(443)	(225)	(156)
Total other (income) and expense	$5,803	$ 873	$ 802

* The company uses financial hedging instruments to limit specific currency risks related to foreign currency-based transactions. The hedging program does not hedge 100 percent of currency exposures and defers, versus eliminates, the impact of currency. Refer to note T, "Derivative Financial Instruments," for additional information on foreign exchange risk.

** Includes a one-time, non-cash pension settlement charge of $5.9 billion. Refer to note V, "Retirement-Related Benefits," for additional information.

È Other primarily consists of (gains)/losses from divestitures, dispositions of land/buildings and other.

Separation of Kyndryl (Tables)

Separation of Kyndryl (Tables)	12 Months Ended Dec. 31, 2022

Separation of Kyndryl

Schedule of discontinued operations

($ in millions)

For the year ended December 31:	2022	2021 *	2020 *
Revenue	$ 7	$ 14,994	$ 18,441
Cost of sales	24	11,270	13,651
Selling, general and administrative expense	86	1,869 **	1,641 **
Kyndryl-related workforce rebalancing charges	—	31 **	884 **
RD&E and Other (income) and expense	(84)	80	124
Income/(loss) from discontinued operations before income taxes	$ (20)	$ 1,744	$ 2,142
Provision for income taxes	124	714 È	484
Income/(loss) from discontinued operations, net of taxÈÈ	$ (143)	$ 1,030	$ 1,658

* Excludes intercompany transactions between IBM and Kyndryl and general corporate overhead costs transferred to Kyndryl as discussed above.

** Recast to conform to 2022 presentation.

È Includes tax charges related to the Kyndryl separation.

ÈÈ Includes $(1) million and $89 million in 2021 and 2020, respectively, related to discontinued operations of Microelectronics, divested in 2015.

($ in millions)

For the year ended December 31:	2022	2021	2020
Net cash provided by/(used in) operating activities	$ —	$1,612 *	$4,403
Net cash provided by/(used in) investing activities	48	(380)	(935)

* Excludes intercompany transactions between IBM and Kyndryl and general corporate overhead costs transferred to Kyndryl as discussed above.

Revenue Recognition (Tables)	12 Months Ended Dec. 31, 2022

Revenue Recognition

Schedule of disaggregation of revenue

Revenue by Major Products/Service Offerings

($ in millions)

For the year ended December 31:	2022	2021	2020
Hybrid Platform & Solutions	$17,866	$17,036 *	$15,518 *
Transaction Processing	7,171	6,390	6,606
Total Software	$25,037	$23,426 *	$22,124 *
Business Transformation	$ 8,834	$ 8,284	$ 7,193
Application Operations	6,508	6,095	5,931
Technology Consulting	3,765	3,466	3,133
Total Consulting	$19,107	$17,844	$16,257
Hybrid Infrastructure	$ 9,451	$ 8,167	$ 8,415
Infrastructure Support	5,837	6,021	6,118
Total Infrastructure	$15,288	$14,188	$14,533
Financing**	$ 645	$ 774	$ 975
Other	$ 453	$ 1,119 *	$ 1,291 *
Total Revenue	$60,530	$57,350	$55,179

* Recast to reflect segment change.

** Contains lease and loan financing arrangements which are not subject to the guidance on revenue from contracts with customers.

Schedule of hybrid cloud revenue by segment

($ in millions)

For the year ended December 31:	2022	2021	2020
Software	$ 9,321	$ 8,386 *	$ 6,517 *
Consulting	9,019	7,852	5,861
Infrastructure	3,895	3,645	4,039
Other	142	328 *	422 *
Total	$22,377	$20,210	$16,838

* Recast to reflect segment change.

Schedule of disaggregation of revenue by geography

($ in millions)

For the year ended December 31:	2022	2021	2020
Americas	$31,057	$28,299	$27,119
Europe/Middle East/Africa	17,950	17,447	16,767
Asia Pacific	11,522	11,604	11,293
Total	$60,530	$57,350	$55,179

Schedule of reconciliation of contract balances

($ in millions)

At December 31:	2022	2021
Notes and accounts receivable — trade (net of allowances of $233 in 2022 and $218 in 2021)	$ 6,541	$ 6,754
Contract assets*	464	471
Deferred income (current)	12,032	12,518
Deferred income (noncurrent)	3,499	3,577

* Included within prepaid expenses and other current assets in the Consolidated Balance Sheet.

Schedule of notes and accounts receivable - trade allowance for credit losses

($ in millions)

January 1, 2022	Additions/(Releases)	Write-offs	Foreign currency and Other	December 31, 2022
$218	$ 59	$(31)	$ (14)	$233

January 1, 2021	Additions/(Releases)	Write-offs	Foreign currency and Other	December 31, 2021
$260	$(15)	$(28)	$ 1	$218

Schedule of deferred contract costs

($ in millions)

At December 31:	2022	2021
Capitalized costs to obtain a contract	$ 563	$ 476

Deferred costs to fulfill a contract		
Deferred setup costs	456	546
Other deferred fulfillment costs	814	1,000
Total deferred costs*	$1,833	$2,022

* Of the total deferred costs, $967 million was current and $866 million was noncurrent at December 31, 2022 and $1,097 million was current and $924 million was noncurrent at December 31, 2021.

Segments (Tables)

	12 Months Ended Dec. 31, 2022

Segments

Revenue and Pre-tax Income by Segment

($ in millions)

For the year ended December 31:	Software	Consulting	Infrastructure	Financing	Total Segments
2022					
Revenue	$ 25,037	$ 19,107	$ 15,288	$ 645	$ 60,077
Pre-tax income from continuing operations	6,162	1,677	2,262	340	10,441
Revenue year-to-year change	6.9 %	7.1 %	7.8 %	(16.6)%	6.8 %
Pre-tax income year-to-year change	27.1 %	15.7 %	11.7 %	(22.9)%	19.1 %
Pre-tax income margin	24.6 %	8.8 %	14.8 %	52.6 %	17.4 %
2021*					
Revenue	$ 23,426	$ 17,844	$ 14,188	$ 774	$ 56,231
Pre-tax income from continuing operations	4,849	1,449	2,025	441	8,765
Revenue year-to-year change	5.9 %	9.8 %	(2.4)%	(20.6)%	4.3 %
Pre-tax income year-to-year change	41.7 %	40.1 %	22.4 %	(1.8)%	33.6 %
Pre-tax income margin	20.7 %	8.1 %	14.3 %	57.0 %	15.6 %
2020*					
Revenue	$ 22,124	$ 16,257	$ 14,533	$ 975	$ 53,888
Pre-tax income from continuing operations**	3,423	1,034	1,654	449	6,561

* Recast to reflect segment change.

** Includes the impact of a $1.5 billion pre-tax charge for structural actions in the fourth quarter of 2020. The impact by segment was as follows: Software ($0.6 billion), Consulting ($0.4 billion) and Infrastructure ($0.4 billion). The impact to Financing was immaterial.

Reconciliation of segment revenue and pre-tax income to IBM as reported

Reconciliations of IBM as Reported

($ in millions)

For the year ended December 31:	2022	2021 (1)	2020 (1)
Revenue			
Total reportable segments	$60,077	$56,231	$53,888
Other—divested businesses	318	785	904
Other revenue	135	335	387
Total revenue	$60,530	$57,350	$55,179

($ in millions)

For the year ended December 31:	2022	2021 (1)	2020 (1)
Pre-tax income from continuing operations			
Total reportable segments	$10,441	$ 8,765	$ 6,561 (2)
Amortization of acquired intangible assets	(1,747)	(1,838)	(1,832)
Acquisition-related charges	(18)	(43)	(13)
Non-operating retirement-related (costs)/income	(6,548) (3)	(1,282)	(1,073)
Kyndryl-related impacts (4)	(351)	118	—
Elimination of internal transactions	(10)	(7)	(28)
Other—divested businesses	91 (5)	(102)	(70)
Unallocated corporate amounts and other	(702)	(774)	(973)
Total pre-tax income from continuing operations	$ 1,156	$ 4,837	$ 2,572

(1) Recast to reflect segment change.
(2) Includes the impact of a $1.5 billion pre-tax charge for structural actions in the fourth quarter of 2020.
(3) Includes a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion. See note V, “Retirement-Related Benefits,” for additional information.
(4) Refer to note J, “Financial Assets & Liabilities,” for additional information.
(5) Includes a gain on the sale of the company's healthcare software assets. Refer to note F, "Acquisitions & Divestitures," for additional information.

Assets and Other Items by segment

($ in millions)

For the year ended December 31:	Software *	Consulting	Infrastructure	Financing	Total Segments
2022					
Assets	$ 57,186	$ 13,481	$ 12,243	$ 15,757	$ 98,667
Depreciation/amortization of intangibles**	968	289	1,403	14	2,674
Capital expenditures/investments in intangibles	446	33	853	27	1,359
Interest income	—	—	—	582	582

Interest expense	—	—	—	175	175
2021					
Assets	$ 58,420	$ 11,914	$ 11,766	$ 16,880	$ 98,980
Depreciation/amortization of intangibles**	983	250	1,399	49	2,681
Capital expenditures/investments in intangibles	559	55	792	33	1,439
Interest income	—	—	—	628	628
Interest expense	—	—	—	129	129
2020					
Assets	$ 57,436	$ 10,548	$ 12,378	$ 24,974	$ 105,336
Depreciation/amortization of intangibles**	1,007	207	1,419	120	2,753
Capital expenditures/investments in intangibles	538	26	1,093	41	1,699
Interest income	—	—	—	834	834
Interest expense	—	—	—	307	307

* Prior-year periods were recast to reflect segment change.

** Segment pre-tax income from continuing operations does not include the amortization of acquired intangible assets.

Reconciliation of assets to IBM as reported

($ in millions)

At December 31:	**2022**	**2021 ***	**2020 ***
Assets			
Total reportable segments	$ 98,667	$ 98,980	$105,336
Elimination of internal transactions	(1,062)	(1,608)	(4,686)
Other—divested businesses	100	1,109	1,376
Unallocated amounts			
Cash and marketable securities	8,138	6,222	12,463
Notes and accounts receivable	281	1,622	1,655
Deferred tax assets	6,078	7,158	8,175
Plant, other property and equipment	1,760	2,196	2,449
Operating right-of-use assets	1,586	1,945	2,368
Pension assets	8,236	9,848	7,557
Other	3,459	4,530	3,514
Total assets of discontinued operations	—	—	15,764
Total IBM consolidated assets	$127,243	$132,001	$155,971

* Recast to reflect segment change.

Geographic Information

Revenue*

($ in millions)

For the year ended December 31:	**2022**	**2021**	**2020**
United States	$25,098	$22,893	$22,258
Japan	5,453	5,648	5,680
Other countries	29,980	28,810	27,241
Total revenue	$60,530	$57,350	$55,179

* Revenues are attributed to countries based on the location of the client.

Plant and Other Property–Net

($ in millions)

At December 31:	**2022**	**2021**	**2020**
United States	$3,209	$3,375	$3,452
Other countries	2,100	2,293	2,656
Total*	$5,308	$5,668	$6,108

* Balances do not include rental machines.

Operating Right-of-Use Assets–Net

($ in millions)

At December 31:	**2022**	**2021**	**2020**
United States	$1,074	$1,148	$1,165
Japan	259	398	532
Other countries	1,545	1,676	1,870
Total	$2,878	$3,222	$3,566

Revenue by Classes of Similar Products or Services

($ in millions)

For the year ended December 31:	**2022**	**2021**	**2020**
Software *			
Software	$21,374	$19,845	$18,771
Services	3,575	3,485	3,253

Systems	88	96	100
Consulting			
Services	$18,857	$17,563	$15,986
Software	170	173	183
Systems	80	108	89
Infrastructure			
Maintenance	$ 4,590	$ 4,743	$ 4,804
Servers	4,471	3,483 **	3,686 **
Services	2,653	2,616	2,656
Storage	1,989	1,919 **	1,824 **
Software	1,585	1,426	1,563
Financing			
Financing	$ 582	$ 628	$ 834
Used equipment sales	$ 64	$ 145	$ 140

* Prior-year periods were recast to reflect segment change.

** Recast to conform to 2022 presentation to present used equipment sales in servers and storage.

Acquisitions & Divestitures (Tables)	12 Months Ended Dec. 31, 2022

2022 Acquisitions

Acquisitions & Divestitures

Business acquisition, purchase price allocation

($ in millions)

	Amortization Life (in Years)	Octo	Other Acquisitions
Current assets		$ 119	$ 87
Property, plant and equipment/noncurrent assets		13	7
Intangible assets			
Goodwill	N/A	826	1,062
Client relationships	7	370	204
Completed technology	4—7	30	90
Trademarks	2—3	15	10
Total assets acquired		$1,374	$ 1,460
Current liabilities		54	51
Noncurrent liabilities		57	22
Total liabilities assumed		$ 110	$ 73
Total purchase price		$1,263	$ 1,387

N/A–Not applicable

2021 Acquisitions

Acquisitions & Divestitures

Business acquisition, purchase price allocation

($ in millions)

	Amortization Life (in Years)	Turbonomic	Other Acquisitions
Current assets		$ 115	$ 112
Property, plant and equipment/noncurrent assets		11	18
Intangible assets			
Goodwill	N/A	1,390	1,073
Client relationships	4—10	309	196
Completed technology	4—7	117	206
Trademarks	1—6	15	31
Total assets acquired		$ 1,957	$ 1,636
Current liabilities		73	68
Noncurrent liabilities		55	56
Total liabilities assumed		$ 128	$ 124
Total purchase price		$ 1,829	$ 1,512

N/A–Not applicable

2020 Acquisitions

Acquisitions & Divestitures

Business acquisition, purchase price allocation

($ in millions)

	Amortization Life (in Years)	Allocated Amount
Current assets		$ 35
Property, plant and equipment/noncurrent assets		7
Intangible assets		
Goodwill	N/A	575
Client relationships	5—7	84
Completed technology	2—7	73
Trademarks	1—7	11
Total assets acquired		$ 784
Current liabilities		19
Noncurrent liabilities		41
Total liabilities assumed		$ 61
Total purchase price		$ 723

N/A—Not applicable

Taxes (Tables)

12 Months Ended Dec. 31, 2022

Taxes

Income before income taxes

($ in millions)

For the year ended December 31:	2022	2021	2020
Income/(loss) from continuing operations before income taxes			
U.S. operations	$(6,602)*	$(2,654)	$(2,349)
Non-U.S. operations	7,758	7,491	4,921
Total income from continuing operations before income taxes	$ 1,156	$ 4,837	$ 2,572

* Includes the impact of a one-time, non-cash pension settlement charge. Refer to note V, "Retirement-Related Benefits," for additional information.

Components of the provision for income taxes by geographic operations and taxing jurisdiction

($ in millions)

For the year ended December 31:	2022	2021	2020
U.S. operations	$(2,272)	$ (969)	$ 1,913
Non-U.S. operations	1,645	1,093	(3,273)
Total continuing operations provision for/(benefit from) income taxes	$ (626)	$ 124	$(1,360)

($ in millions)

For the year ended December 31:	2022	2021	2020
U.S. federal			
Current	$ 391	$ 374	$ 312
Deferred	(2,645)	(1,358)	1,102
	$(2,253)	$ (984)	$ 1,414
U.S. state and local			
Current	$ 184	$ 161	$ 345
Deferred	(486)	(370)	(358)
	$ (302)	$ (209)	$ (13)
Non-U.S.			
Current	$ 1,676	$ 1,342	$ 1,208
Deferred	252	(25)	(3,969)
	$ 1,929	$ 1,317	$(2,761)
Total continuing operations provision for/(benefit from) income taxes	$ (626)	$ 124	$(1,360)
Discontinued operations provision for/(benefit from) income taxes	$ 124	$ 714	$ 484
Total provision for/(benefit from) income taxes	$ (503)	$ 838	$ (876)

Effective income tax rate reconciliation

For the year ended December 31:	2022	2021	2020
Statutory rate	21 %	21 %	21 %
Tax differential on foreign income	(29)*	(10)	(31)
Intra-entity IP sale	—	—	(37)
Domestic incentives	(24)*	(5)	(9)
State and local	(21)*	(3)	0
Other	(1)*	0	3
Effective rate	(54)%	3 %	(53)%

* Includes the impacts of the pension settlement charge on tax differential on foreign income, domestic incentives, state and local, and other of (24) points, (20) points, (21) points, and (1) point, respectively.

Percentages rounded for disclosure purposes.

Components of deferred tax assets and liabilities

Deferred Tax Assets

($ in millions)

At December 31:	2022	2021
Retirement benefits	$ 1,954	$ 3,142

Leases	927	1,061
Share-based and other compensation	608	661
Domestic tax loss/credit carryforwards	1,798	1,619
Deferred income	633	630
Foreign tax loss/credit carryforwards	845	983
Bad debt, inventory and warranty reserves	383	390
Depreciation	247	249
Restructuring charges	101	216
Accruals	215	305
Intangible assets	2,879	2,929
Capitalized research and development	3,012	2,161
Other	1,157	1,306 *
Gross deferred tax assets	14,759	15,652
Less: valuation allowance	770	883
Net deferred tax assets	$13,989	$14,769

* Recast to include 2021 hedging losses in other.

Deferred Tax Liabilities

($ in millions)

At December 31:	2022	2021
Goodwill and intangible assets	$ 3,156	$ 3,306 *
GILTI deferred taxes	2,483	3,257
Leases and right-of-use assets	1,174	1,314
Depreciation	505	518
Retirement benefits	1,609	1,971
Deferred transition costs	56	42
Undistributed foreign earnings	87	131
Other	955	817
Gross deferred tax liabilities	$10,025	$11,356

* Recast to conform to 2022 presentation to include software development costs in goodwill and intangible assets.

Reconciliation of the beginning and ending amount of unrecognized tax benefits

($ in millions)

	2022	2021	2020
Balance at January 1	$8,709	$8,568	$7,146
Additions based on tax positions related to the current year	355	934	1,690
Additions for tax positions of prior years	174	247	159
Reductions for tax positions of prior years (including impacts due to a lapse of statute)	(470)	(688)	(408)
Settlements	(41)	(352)	(19)
Balance at December 31	$8,728	$8,709	$8,568

Earnings Per Share (Tables)

	12 Months Ended Dec. 31, 2022

Earnings Per Share

Computation of basic and diluted earnings/(loss) per share

($ in millions except per share amounts)

For the year ended December 31:	2022	2021	2020
Weighted-average number of shares on which earnings per share calculations are based			
Basic	902,664,190	895,990,771	890,348,679
Add—incremental shares under stock-based compensation plans	7,593,455	6,883,290	4,802,940
Add—incremental shares associated with contingently issuable shares	2,011,417	1,766,940	1,412,352
Assuming dilution	912,269,062	904,641,001	896,563,971
Income from continuing operations	$1,783	$4,712	$3,932
Income/(loss) from discontinued operations, net of tax	(143)	1,030	1,658
Net income on which basic earnings per share is calculated	$1,639	$5,743	$5,590
Income from continuing operations	$1,783	$4,712	$3,932
Net income applicable to contingently issuable shares	—	—	(2)
Income from continuing operations on which diluted earnings per share is calculated	$1,783	$4,712	$3,930
Income/(loss) from discontinued operations, net of tax, on which basic and diluted earnings per share is calculated	(143)	1,030	1,658
Net income on which diluted earnings per share is calculated	$1,639	$5,743	$5,588
Earnings/(loss) per share of common stock			
Assuming dilution			
Continuing operations	$ 1.95	$ 5.21	$ 4.38
Discontinued operations	(0.16)	1.14	1.85
Total	$ 1.80	$ 6.35	$ 6.23
Basic			
Continuing operations	$ 1.97	$ 5.26	$ 4.42
Discontinued operations	(0.16)	1.15	1.86
Total	$ 1.82	$ 6.41	$ 6.28

Financial Assets & Liabilities (Tables)	12 Months Ended Dec. 31, 2022

Financial Assets & Liabilities

Financial assets and financial liabilities measured at fair value on a recurring basis

($ in millions)

At December 31:	Fair Value Hierarchy Level	2022 Assets [8]	2022 Liabilities [9]	2021 Assets [8]	2021 Liabilities [9]
Cash equivalents [1]					
Time deposits and certificates of deposit [2]	2	$ 3,712	N/A	$ 2,502 [10]	N/A
Money market funds	1	306	N/A	263	N/A
Total cash equivalents		$ 4,018	N/A	$ 2,766	N/A
Equity investments [3]	1	—	N/A	0	N/A
Kyndryl common stock [4]	1	—	N/A	807	N/A
Debt securities–current [2][5]	2	852	N/A	600	N/A
Debt securities–noncurrent [2][6]	2,3	31	N/A	37	N/A
Derivatives designated as hedging instruments					
Interest rate contracts	2	3	336	12	—
Foreign exchange contracts	2	184	674	359	117
Derivatives not designated as hedging instruments					
Foreign exchange contracts	2	42	16	21	42
Equity contracts [7]	1,2	49	8	6	4
Total		$ 5,179	$1,034	$ 4,608	$ 162

[1] Included within cash and cash equivalents in the Consolidated Balance Sheet.

[2] Available-for-sale debt securities with carrying values that approximate fair value.

[3] Included within investments and sundry assets in the Consolidated Balance Sheet.

[4] Refer to "Kyndryl Common Stock" below for additional information.

[5] U.S. treasury bills and term deposits that are reported within marketable securities in the Consolidated Balance Sheet.

[6] Includes immaterial activity related to private company investments reported within investments and sundry assets in the Consolidated Balance Sheet.

[7] Level 1 includes immaterial amounts related to equity futures contracts.

[8] The gross balances of derivative assets contained within prepaid expenses and other current assets, and investments and sundry assets in the Consolidated Balance Sheet at December 31, 2022 were $271 million and $7 million, respectively, and at December 31, 2021 were $358 million and $40 million, respectively.

[9] The gross balances of derivative liabilities contained within other accrued expenses and liabilities, and other liabilities in the Consolidated Balance Sheet at December 31, 2022 were $546 million and $488 million, respectively, and at December 31, 2021 were $60 million and $103 million, respectively.

[10] Recast to conform to 2022 presentation.

N/A–Not applicable

Inventory (Tables)	12 Months Ended Dec. 31, 2022

Inventory

Inventory

($ in millions)

At December 31:	2022	2021
Finished goods	$ 158	$ 208
Work in process and raw materials	1,394	1,442
Total	$1,552	$1,649

Financing Receivables (Tables)

	12 Months Ended
	Dec. 31, 2022

Financing Receivables

Summary of the components of financing receivables

($ in millions)

At December 31, 2022:	Client Financing Receivables: Client Loan and Installment Payment Receivables (Loans)	Client Financing Receivables: Investment in Sales-Type and Direct Financing Leases	Commercial Financing Receivables: Held for Investment	Commercial Financing Receivables: Held for Sale *	Total
Financing receivables, gross	$ 8,875	$ 4,023	$ 299	$ 939	$14,136
Unearned income	(439)	(351)	—	—	(790)
Unguaranteed residual value	—	422	—	—	422
Amortized cost	$ 8,437	$ 4,094	$ 299	$ 939	$13,769
Allowance for credit losses	(108)	(60)	(5)	—	(173)
Total financing receivables, net	$ 8,329	$ 4,034	$ 293	$ 939	$13,596
Current portion	$ 5,073	$ 1,485	$ 293	$ 939	$ 7,790
Noncurrent portion	$ 3,256	$ 2,549	$ —	$ —	$ 5,806

($ in millions)

At December 31, 2021:	Client Financing Receivables: Client Loan and Installment Payment Receivables (Loans)	Client Financing Receivables: Investment in Sales-Type and Direct Financing Leases	Commercial Financing Receivables: Held for Investment	Commercial Financing Receivables: Held for Sale *	Total
Financing receivables, gross	$ 9,303	$ 3,336	$ 450	$ 793	$13,881
Unearned income	(353)	(223)	—	—	(576)
Unguaranteed residual value	—	335	—	—	335
Amortized cost	$ 8,949	$ 3,448	$ 450	$ 793	$13,640
Allowance for credit losses	(131)	(64)	(6)	—	(201)
Total financing receivables, net	$ 8,818	$ 3,384	$ 444	$ 793	$13,439
Current portion	$ 5,371	$ 1,406	$ 444	$ 793	$ 8,014
Noncurrent portion	$ 3,447	$ 1,978	$ —	$ —	$ 5,425

* The carrying value of the receivables classified as held for sale approximates fair value.

Schedule of transfer of client and commercial financing assets

($ in millions)

For the year ended December 31:	2022	2021
Commercial financing receivables		
Receivables transferred during the period	$9,029	$7,359
Receivables uncollected at end of period*	$1,561	$1,653
Client financing receivables		
Lease receivables	$ 15	$ 819
Loan receivables	2	2,224
Total client financing receivables transferred	$ 17	$3,043

* Of the total amount of commercial financing receivables sold and derecognized from the Consolidated Balance Sheet, the amounts presented remained uncollected from business partners as of December 31, 2022 and 2021.

Schedule of financing receivables and allowance for credit losses by class

($ in millions)

At December 31, 2022:	Americas	EMEA	Asia Pacific	Total
Amortized cost	$7,281	$3,546	$ 1,704	$12,531
Allowance for credit losses				
Beginning balance at January 1, 2022	$ 111	$ 61	$ 23	$ 195
Write-offs	(20)	(3)	(2)	(25)
Recoveries	1	0	4	5
Additions/(releases)	(5)	6	(4)	(3)
Other*	2	(5)	(2)	(4)
Ending balance at December 31, 2022	$ 88	$ 60	$ 20	$ 168

($ in millions)

At December 31, 2021:	Americas	EMEA	Asia Pacific	Total
Amortized cost	$6,573	$3,793	$ 2,031	$12,397
Allowance for credit losses				
Beginning balance at January 1, 2021	$ 141	$ 77	$ 37	$ 255
Write-offs	(8)	(2)	(7)	(17)
Recoveries	0	0	1	1
Additions/(releases)	(19)	(11)	(7)	(38)
Other*	(3)	(3)	0	(7)
Ending balance at December 31, 2021	$ 111	$ 61	$ 23	$ 195

* Primarily represents translation adjustments.

Schedule of past due financing receivables

($ in millions)

At December 31, 2022:	Total Amortized Cost	Amortized Cost > 90 Days *	Amortized Cost > 90 Days and Accruing *	Billed Invoices > 90 Days and Accruing	Amortized Cost Not Accruing **
Americas	$ 7,281	$272	$ 198	$ 22	$ 74
EMEA	3,546	52	8	1	46
Asia Pacific	1,704	20	3	1	17
Total client financing receivables	$ 12,531	$344	$ 208	$ 23	$137

($ in millions)

At December 31, 2021:	Total Amortized Cost	Amortized Cost > 90 Days *	Amortized Cost > 90 Days and Accruing *	Billed Invoices > 90 Days and Accruing	Amortized Cost Not Accruing **
Americas	$ 6,573	$188	$ 100	$ 6	$ 90
EMEA	3,793	99	7	2	95
Asia Pacific	2,031	25	5	2	20
Total client financing receivables	$12,397	$312	$ 112	$ 10	$205

* At a contract level, which includes total billed and unbilled amounts for financing receivables aged greater than 90 days.

** Of the amortized cost not accruing, there was a related allowance of $122 million and $153 million at December 31, 2022 and 2021, respectively. Financing income recognized on these receivables was immaterial for the years ended December 31, 2022 and 2021, respectively.

Schedule of amortized cost by credit quality indicator

($ in millions)

	Americas		EMEA		Asia Pacific	
At December 31, 2022:	Aaa - Baa3	Ba1 - D	Aaa - Baa3	Ba1 - D	Aaa - Baa3	Ba1 - D
Vintage year						
2022	$ 3,316	$ 1,097	$ 1,447	$ 704	$ 799	$ 96
2021	1,197	323	451	159	203	65
2020	559	217	258	158	210	49
2019	251	91	161	99	127	22
2018	128	26	42	16	84	21
2017 and prior	32	45	14	38	12	17
Total	$ 5,482	$ 1,800	$ 2,373	$ 1,173	$ 1,434	$269

($ in millions)

	Americas		EMEA		Asia Pacific	
At December 31, 2021:	Aaa - Baa3	Ba1 - D	Aaa - Baa3	Ba1 - D	Aaa - Baa3	Ba1 - D
Vintage year						
2021	$ 2,556	$ 1,147	$ 1,181	$ 778	$ 565	$226
2020	1,013	392	506	342	381	86
2019	544	236	287	291	297	51
2018	338	117	189	85	211	64
2017	108	50	15	52	74	17
2016 and prior	20	53	21	46	38	20
Total	$ 4,579	$ 1,994	$ 2,198	$ 1,595	$ 1,567	$464

Property, Plant & Equipment (Tables)	12 Months Ended Dec. 31, 2022

Property, Plant & Equipment

Schedule of property, plant & equipment

($ in millions)

At December 31:	2022	2021
Land and land improvements	$ 213	$ 224
Buildings and building and leasehold improvements	5,678	6,049
Information technology equipment	9,643	10,589 *
Production, engineering, office and other equipment	3,161	3,222
Total—gross	18,695	20,085 *
Less: Accumulated depreciation	13,361	14,390 *
Total—net	$ 5,334	$ 5,694

* Recast to conform to 2022 presentation to present rental machines within information technology equipment.

Leases (Tables) | 12 Months Ended Dec. 31, 2022

Leases

Schedule of various components of lease costs

($ in millions)

For the year ended December 31:	2022	2021	2020
Finance lease cost	$ 67	$ 52	$ 35
Operating lease cost	1,050	1,126	1,181
Short-term lease cost	7	21	28
Variable lease cost	262	336	343
Sublease income	(72)	(46)	(28)
Total lease cost	$1,315	$1,489	$1,558

Schedule of supplemental information relating to the cash flows arising from lease transactions

($ in millions)

For the year ended December 31:	2022	2021	2020
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash outflows from finance leases	$ 9	$ 8	$ 8
Financing cash outflows from finance leases	55	42	25
Operating cash outflows from operating leases	1,020	1,135	1,212
ROU assets obtained in exchange for new finance lease liabilities*	196	46	50
ROU assets obtained in exchange for new operating lease liabilities*	705	779	785

* Includes the impact of currency.

Schedule of weighted-average lease terms and discount rates

At December 31:	2022	2021
Finance leases		
Weighted-average remaining lease term	3.7 yrs.	4.1 yrs.
Weighted-average discount rate	3.57 %	0.88 %
Operating leases		
Weighted-average remaining lease term	4.5 yrs.	4.5 yrs.
Weighted-average discount rate	3.77 %	3.01 %

Schedule of expected undiscounted cash out flows for operating and finance leases

($ in millions)

	2023	2024	2025	2026	2027	Thereafter	Imputed Interest *	Total **
Finance leases	$ 88	$ 74	$ 54	$ 24	$ 22	$ 19	$ (43)	$ 239
Operating leases	960	788	555	430	285	313	(267)	3,064

* Imputed interest represents the difference between undiscounted cash flows and discounted cash flows.

** The company entered into lease agreements for certain facilities and equipment with payments totaling approximately $691 million that have not yet commenced as of December 31, 2022, and therefore are not included in this table.

Schedule of finance lease right of use assets and liability

($ in millions)

At December 31:	2022	2021
ROU Assets—Property, plant and equipment	$223	$ 86
Lease Liabilities		
Short-term debt	75	36
Long-term debt	164	63

Schedule of amounts included in the Consolidated Income Statement related to lessor activity

($ in millions)

For the year ended December 31:	2022	2021	2020
Lease income—sales-type and direct financing leases			
Sales-type lease selling price	$1,636	$1,355	$1,321
Less: Carrying value of underlying assets*	(385)	(300)	(410)
Gross profit	1,251	1,055	911
Interest income on lease receivables	200	179	249
Total sales-type and direct financing lease income	1,451	1,234	1,160
Lease income—operating leases	116	169	255
Variable lease income	87	120	115

Total lease income	$1,653	$1,523	$1,530

* Excludes unguaranteed residual value.

Schedule of maturity analysis of the lease payments due to IBM on sales-type and direct financing leases

($ in millions)

	Total
2023	$1,692
2024	1,173
2025	738
2026	330
2027	87
Thereafter	3
Total undiscounted cash flows	$4,023
Present value of lease payments (recognized as financing receivables)	3,672 *
Difference between undiscounted cash flows and discounted cash flows	$ 351

* The present value of the lease payments will not equal the financing receivables balances in the Consolidated Balance Sheet due to certain items including IDCs, allowance for credit losses and residual values, which are included in the financing receivable balance, but are not included in the future lease payments.

Intangible Assets Including Goodwill (Tables)	12 Months Ended Dec. 31, 2022

Intangible Assets Including Goodwill

Intangible asset balances by major asset class

($ in millions)

At December 31, 2022:	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount *
Intangible asset class			
Capitalized software	$ 1,650	$ (705)	$ 945
Client relationships	8,559	(2,951)	5,608
Completed technology	5,220	(2,045)	3,175
Patents/trademarks	2,140	(688)	1,452
Other**	19	(15)	4
Total	$ 17,588	$(6,404)	$11,184

* Includes a decrease in net intangible asset balance of $198 million due to foreign currency translation.

** Other intangibles are primarily acquired proprietary and nonproprietary business processes, methodologies and systems.

($ in millions)

At December 31, 2021:	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount *
Intangible asset class			
Capitalized software	$ 1,696	$ (751)	$ 945
Client relationships	9,021	(2,889)	6,132
Completed technology	6,074	(2,259)	3,815
Patents/trademarks	2,196	(586)	1,610
Other**	44	(35)	9
Total	$ 19,031	$(6,520)	$12,511

* Includes a decrease in net intangible asset balance of $221 million due to foreign currency translation.

** Other intangibles are primarily acquired proprietary and nonproprietary business processes, methodologies and systems.

Intangible assets, future amortization expense

($ in millions)	Capitalized Software	Acquired Intangibles	Total
2023	$514	$1,571	$2,085
2024	328	1,554	1,881
2025	103	1,535	1,639
2026	0	1,512	1,512
2027	—	1,493	1,493
Thereafter	—	2,574	2,574

Changes in goodwill balances by reportable segment

($ in millions)

Segment	Balance at January 1, 2022	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments *	Balance at December 31, 2022
Software	$ 43,966	$ 568	$ (118)	$ —	$ (760)	$ 43,657
Consulting	6,797	1,366	(42)	—	(192)	7,928
Infrastructure	4,396	—	—	(1)	(32)	4,363
Other**	484	—	—	(484)	—	—
Total	$ 55,643	$1,934	$ (159)	$ (485)	$ (984)	$ 55,949

* Primarily driven by foreign currency translation.

** The company derecognized $484 million of goodwill related to the divestiture of its healthcare software assets. Refer to note F, “Acquisitions & Divestitures,” for additional information.

($ in millions)

Segment	Balance at January 1, 2021	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments *	Balance at December 31, 2021
Software**	$ 42,665	$1,836	$ 23	$ (13)	$ (545)	$ 43,966
Consulting	6,145	713	(21)	—	(40)	6,797
Infrastructure	4,436	—	0	—	(39)	4,396

Other**	520	—	-	(37)	1	484
Total	$ 53,765	$2,549	$ 2	$ (50)	$ (623)	$ 55,643

* Primarily driven by foreign currency translation.

** Recast to conform to 2022 presentation.

Borrowings (Tables)

12 Months Ended Dec. 31, 2022

Borrowings

Short-Term Debt

($ in millions)

At December 31:	2022	2021
Short-term loans	$ 8	$ 22
Long-term debt—current maturities	4,751	6,764
Total	$4,760	$6,787

Long-Term Debt, Pre-Swap Borrowing

($ in millions)

At December 31:	Maturities	2022	2021
U.S. dollar debt (weighted-average interest rate at December 31, 2022):*			
2.6%	2022	$ —	$ 5,673
3.4%	2023	1,529	1,573
3.3%	2024	5,009	5,016
5.1%	2025	1,603	608
3.3%	2026	4,351	4,356
3.1%	2027	3,620	2,221
6.5%	2028	313	313
3.5%	2029	3,250	3,250
2.0%	2030	1,350	1,350
4.4%	2032	1,850	600
8.0%	2038	83	83
4.5%	2039	2,745	2,745
2.9%	2040	650	650
4.0%	2042	1,107	1,107
7.0%	2045	27	27
4.7%	2046	650	650
4.3%	2049	3,000	3,000
3.0%	2050	750	750
4.2%	2052	1,400	—
7.1%	2096	316	316
		$33,605	$34,290
Other currencies (weighted-average interest rate at December 31, 2022, in parentheses):*			
Euro (1.1%)	2023-2040	$17,087	$15,903
Pound sterling	2022	—	406
Japanese yen (0.3%)	2024-2026	694	1,263
Other (16.0%)	2023-2026	361	378
		$51,747	$52,240
Finance lease obligations (3.5%)	2023-2030	239	99
		$51,986	$52,339
Less: net unamortized discount		835	839
Less: net unamortized debt issuance costs		138	130
Add: fair value adjustment**		(73)	311
		$50,940	$51,681
Less: current maturities		4,751	6,764
Total		$46,189	$44,917

* Includes notes, debentures, bank loans and secured borrowings.

** The portion of the company's fixed-rate debt obligations that is hedged is reflected in the Consolidated Balance Sheet as an amount equal to the sum of the debt's carrying value and a fair value adjustment representing changes in the fair value of the hedged debt obligations attributable to movements in benchmark interest rates.

Post-Swap Borrowing (Long-Term Debt, Including Current Portion)

($ in millions)

	2022		2021	
At December 31:	Amount	Weighted-Average Interest Rate	Amount	Weighted-Average Interest Rate
Fixed-rate debt	$43,898	2.7 %	$49,976	2.8 %
Floating-rate debt*	7,042	5.9 %	1,705	2.6 %
Total	$50,940		$51,681	

* Includes $6,525 million and $425 million in 2022 and 2021, respectively, of notional interest-rate swaps that effectively convert fixed-rate long-term debt into floating-rate debt. Refer to note T, "Derivative Financial Instruments," for additional information.

Pre-swap annual contractual obligations of long-term debt outstanding

($ in millions)

	Total
2023	$ 4,754

2024	6,367
2025	4,875
2026	4,700
2027	4,705
Thereafter	26,585
Total	$51,986

Interest on Debt

($ in millions)

For the year ended December 31:	2022	2021	2020
Cost of financing	$ 346	$ 392	$ 451
Interest expense	1,216	1,155	1,288
Interest capitalized	5	3	5
Total interest paid and accrued	$1,566	$1,550	$1,743

Other Liabilities (Tables)

12 Months Ended Dec. 31, 2022

Other Liabilities

Other Liabilities

($ in millions)

At December 31:	2022	2021
Income tax reserves*	$ 6,404	$ 6,179
Excess 401(k) Plus Plan	1,307	1,686
Disability benefits	303	359
Derivative liabilities	488	103
Workforce reductions	524	752
Deferred taxes	2,292	3,956
Other taxes payable	90	72
Environmental accruals	243	224
Warranty accruals	36	29
Asset retirement obligations	82	92
Acquisition related	152	218
Divestiture related	49	47
Other	273	278
Total	$12,243	$13,996

* Refer to note H, “Taxes,” for additional information.

Commitments & Contingencies (Tables)	12 Months Ended Dec. 31, 2022
Commitments & Contingencies	
Changes in warranty liabilities	

Standard Warranty Liability

($ in millions)

	2022	2021
Balance at January 1	$ 77	$ 83
Current period accruals	84	82
Accrual adjustments to reflect experience	(2)	(1)
Charges incurred	(81)	(86)
Balance at December 31	$ 79	$ 77

Extended Warranty Liability (Deferred Income)

($ in millions)

	2022	2021
Balance at January 1	$ 350	$ 425
Revenue deferred for new extended warranty contracts	100	133
Amortization of deferred revenue	(163)	(198)
Other*	(15)	(10)
Balance at December 31	$ 272	$ 350
Current portion	$ 137	$ 163
Noncurrent portion	$ 135	$ 186

* Other consists primarily of foreign currency translation adjustments.

Equity Activity (Tables)

	12 Months Ended
	Dec. 31, 2022

Equity Activity

Reclassifications and taxes related to items of other comprehensive income

($ in millions)

For the year ended December 31, 2022:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$ 176	$ (406)	$ (229)
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ (1)	$ 0	$ (1)
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ (1)	$ 0	$ (1)
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	$ 241	$ (64)	$ 178
Reclassification of (gains)/losses to:			
Cost of services	(24)	6	(18)
Cost of sales	(99)	28	(70)
Cost of financing	24	(6)	18
SG&A expense	(38)	11	(28)
Other (income) and expense	(349)	88	(261)
Interest expense	86	(22)	64
Total unrealized gains/(losses) on cash flow hedges	$ (158)	$ 41	$ (117)
Retirement-related benefit plans*			
Prior service costs/(credits)	$ 463	$ (99)	$ 364
Net (losses)/gains arising during the period	878	(183)	695
Curtailments and settlements	5,970	(1,490)	4,480
Amortization of prior service (credits)/costs	12	(3)	9
Amortization of net (gains)/losses	1,596	(304)	1,293
Total retirement-related benefit plans	$8,919	$(2,078)	$6,841
Other comprehensive income/(loss)	$8,936	$(2,442)	$6,494

* These AOCI components are included in the computation of net periodic pension cost and include the impact of a one-time, non-cash pension settlement charge of $5.9 billion ($4.4 billion net of tax). Refer to note V, "Retirement-Related Benefits," for additional information.

($ in millions)

For the year ended December 31, 2021:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$ 987	$ (414)	$ 573
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ 0	$ 0	$ 0
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ 0	$ 0	$ 0
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	$ 344	$ (89)	$ 256
Reclassification of (gains)/losses to:			
Cost of services	(43)	11	(32)
Cost of sales	16	(3)	13
Cost of financing	22	(6)	17
SG&A expense	24	(6)	19
Other (income) and expense	157	(40)	118
Interest expense	65	(16)	49
Total unrealized gains/(losses) on cash flow hedges	$ 587	$ (149)	$ 438
Retirement-related benefit plans*			
Prior service costs/(credits)	$ (51)	$ (1)	$ (52)
Net (losses)/gains arising during the period	2,433	(601)	1,832
Curtailments and settlements	94	(11)	83
Amortization of prior service (credits)/costs	9	0	9
Amortization of net (gains)/losses	2,484	(528)	1,956
Total retirement-related benefit plans	$4,969	$(1,140)	$3,828
Other comprehensive income/(loss)	$6,542	$(1,703)	$4,839

* These AOCI components are included in the computation of net periodic pension cost. Refer to note V, "Retirement-Related Benefits," for additional information.

($ in millions)

Before Tax	Tax (Expense)/	Net of Tax

For the year ended December 31, 2020:	Amount	Benefit	Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$(1,500)	$ 535	$ (965)
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ (1)	$ 0	$ 0
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ (1)	$ 0	$ 0
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	$ (349)	$ 89	$ (261)
Reclassification of (gains)/losses to:			
Cost of services	(23)	6	(18)
Cost of sales	(2)	1	(2)
Cost of financing	27	(7)	20
SG&A expense	0	0	0
Other (income) and expense	(101)	25	(75)
Interest expense	78	(20)	58
Total unrealized gains/(losses) on cash flow hedges	$ (370)	$ 94	$ (277)
Retirement-related benefit plans*			
Prior service costs/(credits)	$ (37)	$ 7	$ (29)
Net (losses)/gains arising during the period	(1,678)	295	(1,383)
Curtailments and settlements	52	(14)	38
Amortization of prior service (credits)/costs	13	(1)	12
Amortization of net (gains)/losses	2,314	(451)	1,863
Total retirement-related benefit plans	$ 664	$ (163)	$ 501
Other comprehensive income/(loss)	$(1,206)	$ 466	$ (740)

* These AOCI components are included in the computation of net periodic pension cost. Refer to note V, "Retirement-Related Benefits," for additional information.

Accumulated other comprehensive income/(loss) (net of tax)

Accumulated Other Comprehensive Income/(Loss) (net of tax)

($ in millions)

	Net Unrealized Gains/(Losses) on Cash Flow Hedges	Foreign Currency Translation Adjustments *	Net Change Retirement-Related Benefit Plans	Net Unrealized Gains/(Losses) on Available-For-Sale Securities	Accumulated Other Comprehensive Income/(Loss)
December 31, 2019	$ (179)	$ (3,700)	$(24,718)	$ 0	$ (28,597)
Other comprehensive income before reclassifications	(261)	(965)	(1,412)	0	(2,638)
Amount reclassified from accumulated other comprehensive income	(16)	—	1,914	—	1,898
Total change for the period	(277)	(965)	501	0	(740)
December 31, 2020	(456)	(4,665)	(24,216)	0	(29,337)
Other comprehensive income before reclassifications	256	573	1,780	0	2,608
Amount reclassified from accumulated other comprehensive income	183	—	2,049	—	2,231
Separation of Kyndryl	—	730	534	—	1,264
Total change for the period	438	1,303	4,362	0	6,103
December 31, 2021	(18)	(3,362)	(19,854)	(1)	(23,234)
Other comprehensive income before reclassifications	178	(229)	1,059	(1)	1,007
Amount reclassified from accumulated other comprehensive income	(295)	—	5,782 **	—	5,487
Total change for the period	(117)	(229)	6,841	(1)	6,494
December 31, 2022	$ (135)	$ (3,591)	$(13,013)	$ (1)	$ (16,740)

* Foreign currency translation adjustments are presented gross except for any associated hedges which are presented net of tax.

** Includes the impact of a one-time, non-cash pension settlement charge of $5.9 billion ($4.4 billion net of tax). Refer to note V, "Retirement-Related Benefits," for additional information.

Derivative Financial Instruments (Tables)	12 Months Ended Dec. 31, 2022
Derivative Financial Instruments	
Amounts related to cumulative basis adjustments for fair value hedges	

($ in millions)

At December 31:	2022	2021
Short-term debt		
Carrying amount of the hedged item	$ (199)	$(227)
Cumulative hedging adjustments included in the carrying amount—assets/(liabilities)	1	(2)
Long-term debt		
Carrying amount of the hedged item	(6,216)	(508)
Cumulative hedging adjustments included in the carrying amount—assets/(liabilities)*	72	(309)

* Includes ($250) million and ($302) million of hedging adjustments on discontinued hedging relationships at December 31, 2022 and 2021, respectively.

Effect of derivative instruments in the Consolidated Income Statement

($ in millions)

	Total			Gains/(Losses) of Total Hedge Activity		
For the year ended December 31:	2022	2021	2020	2022	2021	2020
Cost of services	$21,062	$19,147	$17,689	$ 24	$ 43	$ 23
Cost of sales	6,374	6,184	6,048	99	(16)	2
Cost of financing	406	534	577	2	1	12
SG&A expense	18,609	18,745	20,561	(211)	176	141
Other (income) and expense	5,803	873	802	(225)	(205)	101
Interest expense	1,216	1,155	1,288	6	3	35

($ in millions)

	Gain/(Loss) Recognized in Consolidated Income Statement						
	Consolidated Income Statement Line Item	Recognized on Derivatives			Attributable to Risk Being Hedged [2]		
For the year ended December 31:		2022	2021	2020	2022	2021	2020
Derivative instruments in fair value hedges [1]							
Interest rate contracts	Cost of financing	$ (73)	$ (1)	$ 20	$ 85	$ 18	$ 4
	Interest expense	(257)	(2)	58	299	53	11
Derivative instruments not designated as hedging instruments							
Foreign exchange contracts	Other (income) and expense	(492)	(48)	1	N/A	N/A	N/A
Equity contracts	SG&A expense	(249)	201	142	N/A	N/A	N/A
	Other (income) and expense	(83)	—	—	N/A	N/A	N/A
Total		$(1,153)	$150	$220	$384	$ 71	$ 14

($ in millions)

	Gain/(Loss) Recognized in Consolidated Income Statement and Other Comprehensive Income									
	Recognized in OCI			Consolidated Income Statement Line Item	Reclassified from AOCI			Amounts Excluded from Effectiveness Testing [3]		
For the year ended December 31:	2022	2021	2020		2022	2021	2020	2022	2021	2020
Derivative instruments in cash flow hedges										
Interest rate contracts	$ —	$ —	$ —	Cost of financing	$ (4)	$ (4)	$ (5)	$ —	$ —	$ —
				Interest expense	(14)	(13)	(13)	—	—	—
Foreign exchange contracts	241	344	(349)	Cost of services	24	43	23	—	—	—
				Cost of sales	99	(16)	2	—	—	—
				Cost of financing	(21)	(18)	(23)	—	—	—
				SG&A expense	38	(24)	0	—	—	—
				Other (income) and expense	349	(157)	101	—	—	—
				Interest expense	(72)	(52)	(65)	—	—	—

Instruments in net investment hedges (4)										
Foreign exchange contracts	1,613	1,644	(2,127)	Cost of financing	—	—	—	14	6	16
				Interest expense	—	—	—	50	17	45
Total	$ 1,854	$ 1,989	$ (2,477)		$ 400	$ (243)	$ 21	$ 64	$ 23	$ 60

(1) The amount includes changes in clean fair values of the derivative instruments in fair value hedging relationships and the periodic accrual for coupon payments required under these derivative contracts.

(2) The amount includes basis adjustments to the carrying value of the hedged item recorded during the period and amortization of basis adjustments recorded on de-designated hedging relationships during the period.

(3) The company's policy is to recognize all fair value changes in amounts excluded from effectiveness testing in net income each period.

(4) Instruments in net investment hedges include derivative and non-derivative instruments with the amounts recognized in OCI providing an offset to the translation of foreign subsidiaries.

N/A–Not applicable

Stock-Based Compensation (Tables)

12 Months Ended Dec. 31, 2022

Stock-Based Compensation

Stock-based compensation cost included in income from continuing operations

($ in millions)

For the year ended December 31:	2022	2021	2020
Cost	$ 164	$ 145	$ 126
SG&A expense	566	555	550
RD&E expense	258	218	197
Pre-tax stock-based compensation cost	987	919	873
Income tax benefits	(249)	(223)	(198)
Net stock-based compensation cost	$ 738	$ 695	$ 675

Summary of Restricted Stock Units activity

	RSUs		PSUs	
	Weighted-Average Grant Price	Number of Units	Weighted-Average Grant Price	Number of Units
Balance at January 1, 2020	$ 123	11,326,628	$ 126	2,856,450
Awards granted	115	10,651,955	117	1,582,666
Awards released	126	(3,781,240)	137	(630,974)
Awards canceled/ forfeited/ performance adjusted	121	(1,300,639)	125	(256,642)*
Balance at December 31, 2020	$ 117	16,896,704	$ 120	3,551,500 **
Awards granted	125	9,566,307	129	1,561,120
Awards released	120	(4,582,159)	129	(581,397)
Awards canceled/ forfeited/ performance adjusted	119	(2,072,800)	124	(453,178)*
Kyndryl separation - adjustment	—	660,089	—	120,428
Kyndryl separation - cancellation	119	(1,429,661)	119	(469,616)
Balance at December 31, 2021	$ 116	19,038,480	$ 118	3,728,857 **
Awards granted	112	11,447,966	110	1,237,019
Awards released	114	(7,013,530)	114	(679,601)
Awards canceled/ forfeited/ performance adjusted	116	(2,420,002)	116	(720,197)*
Balance at December 31, 2022	$ 115	21,052,914	$ 117	3,566,078 **

* Includes adjustments of (362,247), (223,397) and (70,089) PSUs for 2022, 2021 and 2020, respectively, because final performance metrics were above or below specified targets.

** Represents the number of shares expected to be issued based on achievement of grant date performance targets. The actual number of shares issued will depend on final performance against specified targets over the vesting period.

Summary of Performance Share Units activity

	RSUs		PSUs	
	Weighted-Average Grant Price	Number of Units	Weighted-Average Grant Price	Number of Units
Balance at January 1, 2020	$ 123	11,326,628	$ 126	2,856,450
Awards granted	115	10,651,955	117	1,582,666
Awards released	126	(3,781,240)	137	(630,974)
Awards canceled/ forfeited/ performance adjusted	121	(1,300,639)	125	(256,642)*
Balance at December 31, 2020	$ 117	16,896,704	$ 120	3,551,500 **
Awards granted	125	9,566,307	129	1,561,120
Awards released	120	(4,582,159)	129	(581,397)
Awards canceled/ forfeited/	119	(2,072,800)	124	(453,178)*

performance adjusted				
Kyndryl separation - adjustment	—	660,089	—	120,428
Kyndryl separation - cancellation	119	(1,429,661)	119	(469,616)
Balance at December 31, 2021	$ 116	19,038,480	$ 118	3,728,857 **
Awards granted	112	11,447,966	110	1,237,019
Awards released	114	(7,013,530)	114	(679,601)
Awards canceled/ forfeited/ performance adjusted	116	(2,420,002)	116	(720,197)*
Balance at December 31, 2022	$ 115	21,052,914	$ 117	3,566,078 **

* Includes adjustments of (362,247), (223,397) and (70,089) PSUs for 2022, 2021 and 2020, respectively, because final performance metrics were above or below specified targets.

** Represents the number of shares expected to be issued based on achievement of grant date performance targets. The actual number of shares issued will depend on final performance against specified targets over the vesting period.

Summary of total fair value of RSUs and PSUs granted and vested

($ in millions)

For the year ended December 31:	2022	2021	2020
RSUs			
Granted	$1,288	$1,195	$1,220
Vested	801	549	478
PSUs			
Granted	$ 136	$ 201	$ 186
Vested	77	75	86

Schedule of weighted-average assumptions used for estimation of fair value of stock options

For the year ended December 31:	2022
Expected term (years)	6.3
Expected volatility	25.5 %
Risk-free rate	2.0 %
Dividend yield	5.3 %

Summary of option activity

	Weighted-Average Exercise Price	Number of Shares Under Option
Balance at January 1, 2022	$135	1,549,732
Options granted	125	5,044,353
Options exercised	—	—
Options forfeited/cancelled/expired	125	(319,560)
Balance at December 31, 2022	$128	6,274,525
Vested and exercisable at December 31, 2022	$135	1,549,732

Retirement-Related Benefits (Tables)	12 Months Ended Dec. 31, 2022

Retirement-Related Benefits

Pre-tax cost for all retirement-related plans

($ in millions)

For the year ended December 31:	U.S. Plans 2022	2021	2020	Non-U.S. Plans 2022	2021	2020	Total 2022	2021	2020
Defined benefit pension plans	$5,849 *	$ 303	$167	$ 836	$1,119	$1,057	$6,685	$1,422	$1,224
Retention Plan	8	16	11	—	—	—	8	16	11
Total defined benefit pension plans (income)/cost	$5,857 *	$ 319	$178	$ 836	$1,119	$1,057	$6,693	$1,438	$1,235
IBM 401(k) Plus Plan and non-U.S. plans	$ 530	$ 561	$585	$ 369	$ 409	$ 403	$ 899	$ 971	$ 988
Excess 401(k)	25	21	27	—	—	—	25	21	27
Total defined contribution plans cost	$ 555	$ 582	$612	$ 369	$ 409	$ 403	$ 924	$ 992	$1,015
Nonpension postretirement benefit plans cost	$ 85	$ 127	$145	$ 30	$ 44	$ 57	$ 115	$ 172	$ 202
Total retirement-related benefits net periodic cost	$6,497 *	$1,029	$934	$1,235	$1,573	$1,517	$7,732	$2,601	$2,451

* Includes the impact of a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion related to the Qualified PPP, as described below.

Summary of the total PBO for defined benefit plans, APBO for nonpension postretirement benefit plans, fair value of plan assets and associated funded status

($ in millions)

At December 31:	Benefit Obligations 2022	2021	Fair Value of Plan Assets 2022	2021	Funded Status* 2022	2021
U.S. Plans						
Overfunded plans						
Qualified PPP	$20,091 **	$46,458	$ 25,094 **	$ 51,852	$ 5,002	$ 5,395
Underfunded plans						
Excess PPP	$ 1,173	$ 1,441	$ —	$ —	$ (1,173)	$ (1,441)
Retention Plan	228	283	—	—	(228)	(283)
Nonpension postretirement benefit plan	2,369	3,404	10	8	(2,359)	(3,395)
Total underfunded U.S. plans	$ 3,771	$ 5,128	$ 10	$ 8	$ (3,761)	$ (5,119)
Non-U.S. Plans						
Overfunded plans						
Qualified defined benefit pension plans+	$15,443	$21,617	$ 18,677	$ 26,071	$ 3,234	$ 4,454
Nonpension postretirement benefit plans	7	—	7	—	0	—
Total overfunded non-U.S. plans	$15,450	$21,617	$ 18,684	$ 26,071	$ 3,234	$ 4,454
Underfunded plans						
Qualified defined benefit pension plans+	$11,361	$17,360	$ 9,694	$ 13,908	$ (1,667)	$ (3,452)
Nonqualified defined benefit pension plans+	4,457	6,120	—	—	(4,457)	(6,120)
Nonpension postretirement benefit plans	524	638	22	31	(502)	(607)
Total underfunded non-U.S. plans	$16,342	$24,118	$ 9,716	$ 13,939	$ (6,626)	$(10,179)
Total overfunded plans	$35,541	$68,075	$ 43,778	$ 77,924	$ 8,236	$ 9,850
Total underfunded plans	$20,113	$29,246	$ 9,726	$ 13,947	$(10,387)	$(15,300)

* Funded status is recognized in the Consolidated Balance Statement as follows: Asset amounts as prepaid pension assets; (Liability) amounts as compensation and benefits (current liability) and retirement and nonpension postretirement benefit obligations (noncurrent liability).

** Year-to-year reduction includes the transfer of $16 billion of pension benefit obligations and assets to the Insurers as discussed below.

\+ Non-U.S. qualified plans represent plans funded outside of the U.S. Non-U.S. nonqualified plans are unfunded.

Components of net periodic (income)/ cost of the company's retirement-related benefit plans

($ in millions)

For the year ended December 31:	Defined Benefit Pension Plans U.S. Plans 2022	2021	2020	Non-U.S. Plans 2022	2021	2020
Service cost	$ —	$ —	$ —	$ 237	$ 300	$ 328
Interest cost*	1,129	1,109	1,501	493	424	541
Expected return on plan assets*	(1,729)	(1,802)	(2,169)	(1,016)	(1,115)	(1,229)

Amortization of transition assets*	—	—	—	—	—	—
Amortization of prior service costs/(credits)*	8	16	16	14	(12)	(9)
Recognized actuarial losses*	527	996	829	1,031	1,392	1,336
Curtailments and settlements*	5,923 **	—	—	47	94	49
Multi-employer plans	—	—	—	15	17	23
Other costs/(credits)	—	—	—	15	18	18
Total net periodic (income)/cost	$ 5,857 *	$ 319	$ 178	$ 836	$ 1,119	$ 1,057

($ in millions)

	Nonpension Postretirement Benefit Plans					
	U.S. Plan			Non-U.S. Plans		
For the year ended December 31:	**2022**	**2021**	**2020**	**2022**	**2021**	**2020**
Service cost	$ 5	$ 7	$ 9	$ 3	$ 4	$ 4
Interest cost*	85	65	103	24	27	35
Expected return on plan assets*	—	—	—	(2)	(3)	(4)
Amortization of transition assets*	—	—	—	—	—	—
Amortization of prior service costs/(credits)*	(10)	4	4	0	0	0
Recognized actuarial losses*	5	52	29	4	15	21
Curtailments and settlements*	—	—	—	0	0	0
Other costs/(credits)	—	—	—	0	0	0
Total net periodic cost	$ 85	$127	$145	$30	$44	$57

* These components of net periodic pension costs are included in other (income) and expense in the Consolidated Income Statement.

** Includes the impact of a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion related to the Qualified PPP, as described below.

Changes in benefit obligations

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2022	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
Change in benefit obligation								
Benefit obligation at January 1	$ 48,182	$52,237	$45,097	$50,447	$ 3,404	$ 3,791	$ 638	$ 756
Service cost	—	—	237	300	5	7	3	4
Interest cost	1,129	1,109	493	424	85	65	24	27
Plan participants' contributions	—	—	14	19	43	50	—	—
Acquisitions/divestitures, net	—	—	(45)	(70)	—	—	—	6
Actuarial losses/(gains)	(7,849)	(1,582)	(8,819)	(876)	(780)	(141)	(87)	(78)
Benefits paid from trust*	(3,133)	(3,181)	(1,572)	(1,736)	(385)	(369)	(6)	(6)
Direct benefit payments	(123)	(125)	(418)	(516)	(2)	(1)	(32)	(28)
Foreign exchange impact	—	—	(3,463)	(2,548)	—	—	(10)	(42)
Amendments/curtailments/settlements/other*	(16,712)**	(276)	(262)	(347)	0	3	(1)	(1)
Benefit obligation at December 31	$ 21,493	$48,182	$31,261	$45,097	$ 2,369	$ 3,404	$ 531	$ 638
Change in plan assets								
Fair value of plan assets at January 1	$ 51,852	$54,386	$39,979	$42,308	$ 8	$ 15	$ 31	$ 40
Actual return on plan assets	(6,914)	924	(6,737)	1,686	—	—	3	(14)
Employer contributions	—	—	103	86	344	313	—	6
Acquisitions/divestitures, net	—	—	(20)	(87)	—	—	—	—
Plan participants' contributions	—	—	14	19	43	50	—	—
Benefits paid from trust*	(3,133)	(3,181)	(1,572)	(1,736)	(385)	(369)	(6)	(6)
Foreign exchange impact	—	—	(3,154)	(1,939)	—	—	2	6
Amendments/curtailments/settlements/other*	(16,712)**	(276)	(243)	(358)	0	0	0	0

Fair value of plan assets at December 31	$ 25,094	$51,852	$28,371	$39,979	$ 10	$ 8	$ 29	$ 31
Funded status at December 31	$ 3,600	$ 3,671	$ (2,891)	$ (5,118)	$ (2,359)	$ (3,395)	$ (501)	$ (607)
Accumulated benefit obligation+	$ 21,493	$48,182	$30,961	$44,628	N/A	N/A	N/A	N/A

* Prior period amounts for defined benefit pension plans have been recast to conform to 2022 presentation.

** Primarily represents the transfer of Qualified PPP pension obligations and related plan assets to the Insurers pursuant to group annuity contracts.

\+ Represents the benefit obligation assuming no future participant compensation increases.

N/A–Not applicable

Changes in plan assets

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2022	2021	2022	2021	2022	2021	2022	2021
Change in benefit obligation								
Benefit obligation at January 1	$ 48,182	$52,237	$45,097	$50,447	$ 3,404	$ 3,791	$ 638	$ 756
Service cost	—	—	237	300	5	7	3	4
Interest cost	1,129	1,109	493	424	85	65	24	27
Plan participants' contributions	—	—	14	19	43	50	—	—
Acquisitions/ divestitures, net	—	—	(45)	(70)	—	—	—	6
Actuarial losses/ (gains)	(7,849)	(1,582)	(8,819)	(876)	(780)	(141)	(87)	(78)
Benefits paid from trust*	(3,133)	(3,181)	(1,572)	(1,736)	(385)	(369)	(6)	(6)
Direct benefit payments	(123)	(125)	(418)	(516)	(2)	(1)	(32)	(28)
Foreign exchange impact	—	—	(3,463)	(2,548)	—	—	(10)	(42)
Amendments/ curtailments/ settlements/other*	(16,712)**	(276)	(262)	(347)	0	3	(1)	(1)
Benefit obligation at December 31	$ 21,493	$48,182	$31,261	$45,097	$ 2,369	$ 3,404	$ 531	$ 638
Change in plan assets								
Fair value of plan assets at January 1	$ 51,852	$54,386	$39,979	$42,308	$ 8	$ 15	$ 31	$ 40
Actual return on plan assets	(6,914)	924	(6,737)	1,686	—	—	3	(14)
Employer contributions	—	—	103	86	344	313	—	6
Acquisitions/ divestitures, net	—	—	(20)	(87)	—	—	—	—
Plan participants' contributions	—	—	14	19	43	50	—	—
Benefits paid from trust*	(3,133)	(3,181)	(1,572)	(1,736)	(385)	(369)	(6)	(6)
Foreign exchange impact	—	—	(3,154)	(1,939)	—	—	2	6
Amendments/ curtailments/ settlements/other*	(16,712)**	(276)	(243)	(358)	0	0	0	0
Fair value of plan assets at December 31	$ 25,094	$51,852	$28,371	$39,979	$ 10	$ 8	$ 29	$ 31
Funded status at December 31	$ 3,600	$ 3,671	$ (2,891)	$ (5,118)	$ (2,359)	$ (3,395)	$ (501)	$ (607)
Accumulated benefit obligation+	$ 21,493	$48,182	$30,961	$44,628	N/A	N/A	N/A	N/A

* Prior period amounts for defined benefit pension plans have been recast to conform to 2022 presentation.

** Primarily represents the transfer of Qualified PPP pension obligations and related plan assets to the Insurers pursuant to group annuity contracts.

\+ Represents the benefit obligation assuming no future participant compensation increases.

N/A–Not applicable

Accumulated benefit obligation

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2022	2021	2022	2021	2022	2021	2022	2021
Change in benefit obligation								
Benefit obligation at January 1	$ 48,182	$52,237	$45,097	$50,447	$ 3,404	$ 3,791	$ 638	$ 756
Service cost	—	—	237	300	5	7	3	4
Interest cost	1,129	1,109	493	424	85	65	24	27
Plan participants' contributions	—	—	14	19	43	50	—	—
Acquisitions/ divestitures, net	—	—	(45)	(70)	—	—	—	6
Actuarial losses/ (gains)	(7,849)	(1,582)	(8,819)	(876)	(780)	(141)	(87)	(78)
Benefits paid from trust*	(3,133)	(3,181)	(1,572)	(1,736)	(385)	(369)	(6)	(6)
Direct benefit payments	(123)	(125)	(418)	(516)	(2)	(1)	(32)	(28)
Foreign exchange impact	—	—	(3,463)	(2,548)	—	—	(10)	(42)
Amendments/ curtailments/ settlements/other*	(16,712)**	(276)	(262)	(347)	0	3	(1)	(1)
Benefit obligation at December 31	$ 21,493	$48,182	$31,261	$45,097	$ 2,369	$ 3,404	$ 531	$ 638
Change in plan assets								
Fair value of plan assets at January 1	$ 51,852	$54,386	$39,979	$42,308	$ 8	$ 15	$ 31	$ 40
Actual return on plan assets	(6,914)	924	(6,737)	1,686	—	—	3	(14)
Employer contributions	—	—	103	86	344	313	—	6
Acquisitions/ divestitures, net	—	—	(20)	(87)	—	—	—	—
Plan participants' contributions	—	—	14	19	43	50	—	—
Benefits paid from trust*	(3,133)	(3,181)	(1,572)	(1,736)	(385)	(369)	(6)	(6)
Foreign exchange impact	—	—	(3,154)	(1,939)	—	—	2	6
Amendments/ curtailments/ settlements/other*	(16,712)**	(276)	(243)	(358)	0	0	0	0
Fair value of plan assets at December 31	$ 25,094	$51,852	$28,371	$39,979	$ 10	$ 8	$ 29	$ 31
Funded status at December 31	$ 3,600	$ 3,671	$ (2,891)	$ (5,118)	$ (2,359)	$ (3,395)	$ (501)	$ (607)
Accumulated benefit obligation+	$ 21,493	$48,182	$30,961	$44,628	N/A	N/A	N/A	N/A

* Prior period amounts for defined benefit pension plans have been recast to conform to 2022 presentation.

** Primarily represents the transfer of Qualified PPP pension obligations and related plan assets to the Insurers pursuant to group annuity contracts.

\+ Represents the benefit obligation assuming no future participant compensation increases.

N/A–Not applicable

Net funded status

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
At December 31:	2022	2021	2022	2021	2022	2021	2022	2021
Prepaid pension assets	$ 5,002	$ 5,395	$ 3,234	$ 4,455	$ 0	$ 0	$ 0	$ 0
Current liabilities—compensation and benefits	(121)	(123)	(347)	(359)	(307)	(364)	(16)	(19)
Noncurrent liabilities—retirement and nonpension postretirement benefit obligations	(1,281)	(1,601)	(5,777)	(9,215)	(2,052)	(3,031)	(486)	(588)
Funded status—net	$ 3,600	$ 3,671	$(2,891)	$(5,118)	$ (2,359)	$ (3,395)	$ (501)	$ (607)

Pre-tax net loss and prior service costs/(credits) and transition (assets)/liabilities recognized in OCI and changes in pre-tax net loss, prior service costs/(credits) and transition (assets)/liabilities recognized in AOCI

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2022	2021	2022	2021	2022	2021	2022	2021
Net loss at January 1	$14,273	$15,972	$13,412	$16,310	$ 464	$ 656	$ 183	$ 263
Current period loss/(gain)	794	(704)	(1,115)	(1,411)	(365)	(141)	(93)	(65)
Curtailments and settlements	(5,923)*	—	(47)	(94)	—	—	0	0
Amortization of net loss included in net periodic (income)/cost	(527)	(996)	(1,031)	(1,392)	(5)	(52)	(4)	(15)
Net loss at December 31	$ 8,617	$14,273	$ 11,219	$13,412	$ 94	$ 464	$ 86	$ 183
Prior service costs/(credits) at January 1	$ 8	$ 24	$ 397	$ 325	$ 26	$ 30	$ (4)	$ (4)
Current period prior service costs/(credits)	—	—	(53)	60	(415)	—	5	0
Curtailments, settlements and other	—	—	—	—	—	—	—	—
Amortization of prior service (costs)/credits included in net periodic (income)/cost	(8)	(16)	(14)	12	10	(4)	0	0
Prior service costs/(credits) at December 31	$ 0	$ 8	$ 330	$ 397	$ (379)	$ 26	$ 0	$ (4)
Transition (assets)/liabilities at January 1	$ —	$ —	$ 0	$ 0	$ —	$ —	$ 0	$ 0
Amortization of transition assets/(liabilities) included in net periodic (income)/cost	—	—	—	—	—	—	—	0
Transition (assets)/liabilities at December 31	$ —	$ —	$ 0	$ 0	$ —	$ —	$ 0	$ 0
Total loss recognized in accumulated other comprehensive income/(loss)**	$ 8,617	$14,281	$ 11,549	$13,809	$ (285)	$ 490	$ 86	$ 179

* Includes the impact of a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion related to the Qualified PPP, as described above.

** Refer to note S, "Equity Activity," for the total change in AOCI, and the Consolidated Statement of Comprehensive Income for the components of net periodic (income)/cost, including the related tax effects, recognized in OCI for the retirement-related benefit plans.

Assumptions used to measure the net periodic (income)/cost and year-end benefit obligations

	Defined Benefit Pension Plans					
	U.S. Plans			Non-U.S. Plans		
	2022	2021	2020	2022	2021	2020
Weighted-average assumptions used to measure net periodic (income)/cost for the year ended December 31						
Discount rate	3.30 %*	2.20 %	3.10 %	1.26 %	0.87 %	1.20 %
Expected long-term returns on plan assets	4.33 %*	3.75 %	4.50 %	2.97 %	2.85 %	3.36 %
Rate of compensation increase	N/A	N/A	N/A	3.02 %	2.59 %	2.32 %
Interest crediting rate	2.07 %*	1.10 %	2.70 %	0.26 %	0.26 %	0.28 %
Weighted-average assumptions used to measure benefit obligations at December 31						
Discount rate	5.30 %	2.60 %	2.20 %	3.80 %	1.26 %	0.87 %
Rate of compensation increase	N/A	N/A	N/A	4.00 %	3.02 %	2.59 %
Interest crediting rate	4.40 %	1.10 %	1.10 %	0.34 %	0.26 %	0.26 %

* The Qualified PPP discount rate, expected long-term return on plan assets and interest crediting rate of 2.60 percent, 4.00 percent and 1.10 percent, respectively, for the period January 1, 2022 through August 31, 2022, changed to 4.70 percent, 5.00 percent and 4.00 percent, respectively, for the period September 1, 2022 through December 31, 2022 due to remeasurement of the plan as a result of the changes described on page 110.

N/A–Not applicable

	Nonpension Postretirement Benefit Plans					
	U.S. Plan			Non-U.S. Plans		
	2022	2021	2020	2022	2021	2020
Weighted-average assumptions used to measure net periodic cost for the year ended December 31						
Discount rate	3.05 %*	1.80 %	2.80 %	5.35 %	4.55 %	5.08 %
Expected long-term returns on plan assets	N/A	N/A	N/A	6.64 %	6.62 %	7.73 %
Interest crediting rate	2.16 %*	1.10 %	2.70 %	N/A	N/A	N/A
Weighted-average assumptions used to measure benefit obligations at December 31						
Discount rate	5.30 %	2.30 %	1.80 %	7.25 %	5.35 %	4.55 %
Interest crediting rate	4.40 %	1.10 %	1.10 %	N/A	N/A	N/A

* The U.S. Nonpension Postretirement Plan discount rate and interest crediting rate of 2.30 percent and 1.10 percent, respectively, for the period January 1, 2022 through July 31, 2022, changed to 4.10 percent and 3.65 percent, respectively, for the period August 1, 2022 through December 31, 2022 due to remeasurement of the plan as a result of the changes described on page 110.

N/A–Not applicable

Defined benefit pension plans' asset classes and their associated fair value

($ in millions)

	U.S. Plan				Non-U.S. Plans			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Equity								
Equity securities (1)	$ 518	$ —	$ —	$ 518	$ 247	$ —	$ —	$ 247
Equity mutual funds (2)	114	—	—	114	0	—	—	0
Fixed income								
Government and related (3)	—	9,074	—	9,074	—	6,837	—	6,837
Corporate bonds (4)	—	6,885	721	7,606	—	2,546	—	2,546
Mortgage and asset-backed securities	—	238	—	238	—	2	—	2
Fixed income mutual funds (5)	234	—	—	234	—	—	9	9
Insurance contracts (6)	—	—	—	—	—	3,654	—	3,654
Cash and short-term investments (7)	72	570	—	643	286	263	—	549
Private equity	—	—	421	421	—	—	—	—
Real estate	—	8	—	8	—	—	145	145
Derivatives (8)	—	—	—	—	32	262	—	294
Other mutual funds (9)	—	—	—	—	25	—	—	25
Subtotal	937	16,776	1,142	18,855	590	13,563	155	14,308
Investments measured at net asset value using the NAV practical expedient (10)	—	—	—	6,242	—	—	—	14,141
Other (11)	—	—	—	(4)	—	—	—	(78)
Fair value of plan assets	$ 937	$16,776	$1,142	$25,094	$ 590	$13,563	$155	$28,371

(1) Represents U.S. and international securities. The U.S. Plan includes IBM common stock of $1 million. Non-U.S. Plans include IBM common stock of $2 million.

(2) Invests in predominantly equity securities.

(3) Includes debt issued by national, state and local governments and agencies.

(4) The U.S. Plans include IBM corporate bonds of $6 million. Non-U.S. Plans include IBM corporate bonds of $3 million.

(5) Invests predominantly in fixed-income securities.

(6) Primarily represents insurance policy contracts (Buy-In) in certain non-U.S. plans.

(7) Includes cash, cash equivalents and short-term marketable securities.

(8) Includes interest-rate derivatives, forwards, exchange-traded and other over-the-counter derivatives.

(9) Invests in both equity and fixed-income securities.

(10) Investments measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient, including commingled funds, hedge funds, private equity and real estate partnerships.

(11) Represents net unsettled transactions, relating primarily to purchases and sales of plan assets.

($ in millions)

	U.S. Plan				Non-U.S. Plans			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Equity								
Equity securities (1)	$ 2,023	$ 0	$ —	$ 2,023	$ 485	$ —	$ —	$ 485
Equity mutual funds (2)	133	—	—	133	0	—	—	0
Fixed income								
Government and related (3)	—	21,751	—	21,751	—	9,900	—	9,900
Corporate bonds (4)	—	16,246	598	16,844	—	3,842	—	3,842
Mortgage and asset-backed securities	—	660	—	660	—	3	—	3
Fixed income mutual funds (5)	281	—	—	281	—	—	—	—
Insurance contracts (6)	—	—	—	—	—	5,662	—	5,662
Cash and short-term investments (7)	104	1,269	—	1,373	324	403	—	728
Real estate	—	—	—	—	—	—	174	174
Derivatives (8)	3	3	—	5	61	489	—	550
Other mutual funds (9)	—	—	—	—	30	—	—	30
Subtotal	2,543	39,930	598	43,070	900	20,300	174	21,374
Investments measured at net asset value using the NAV practical expedient (10)	—	—	—	9,078	—	—	—	18,652
Other (11)	—	—	—	(296)	—	—	—	(47)
Fair value of plan assets	$ 2,543	$39,930	$598	$51,852	$ 900	$20,300	$174	$39,979

(1) Represents U.S. and international securities. The U.S. Plan includes IBM common stock of $2 million. Non-U.S. Plans include IBM common stock of $2 million.

(2) Invests in predominantly equity securities.

(3) Includes debt issued by national, state and local governments and agencies.

(4) The U.S. Plans include IBM corporate bonds of $19 million. Non-U.S. Plans include IBM corporate bonds of $4 million.

(5) Invests in predominantly fixed-income securities.

(6) Primarily represents insurance policy contracts (Buy-In) in certain non-U.S. plans.

(7) Includes cash, cash equivalents and short-term marketable securities.

(8) Includes interest-rate derivatives, forwards, exchange-traded and other over-the-counter derivatives.

(9) Invests in both equity and fixed-income securities.

(10) Investments measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient, including commingled funds, hedge funds, private equity and real estate partnerships.

(11) Represents net unsettled transactions, relating primarily to purchases and sales of plan assets.

Reconciliation of the beginning and ending balances of Level 3 assets

($ in millions)

	Corporate Bonds	Private Equity	Total
Balance at January 1, 2022	$ 598	$ —	$ 598
Return on assets held at end of year	(114)	—	(114)
Return on assets sold during the year	(2)	—	(2)
Purchases, sales and settlements, net	206	—	206
Transfers, net	33	421	454
Balance at December 31, 2022	$ 721	$421	$1,142

($ in millions)

	Corporate Bonds
Balance at January 1, 2021	$ 542
Return on assets held at end of year	(15)
Return on assets sold during the year	1
Purchases, sales and settlements, net	63
Transfers, net	6
Balance at December 31, 2021	$ 598

The following tables present the reconciliation of the beginning and ending balances of Level 3 assets for the years ended December 31, 2022 and 2021 for the non-U.S. Plans.

($ in millions)

	Government and Related	Private Real Estate	Total
Balance at January 1, 2022	$ —	$ 174	$ 174
Return on assets held at end of year	0	6	6
Return on assets sold during the year	—	(1)	(1)
Purchases, sales and settlements, net	10	(16)	(7)
Transfers, net	—	0	0
Foreign exchange impact	0	(18)	(19)
Balance at December 31, 2022	$ 9	$ 145	$ 155

($ in millions)

	Government and Related	Private Real Estate	Total
Balance at January 1, 2021	$ 2	$ 298	$ 300
Return on assets held at end of year	0	(43)	(43)
Return on assets sold during the year	0	58	58
Purchases, sales and settlements, net	(2)	(138)	(140)
Transfers, net	—	—	—
Foreign exchange impact	0	(1)	(1)
Balance at December 31, 2021	$ —	$ 174	$ 174

Schedule of contributions and direct benefit payments

($ in millions)

For the years ended December 31:	**2022**	**2021**
Non-U.S. DB plans	$ 103	$ 86
Nonpension postretirement benefit plans	344	319
Multi-employer plans	15	17
DC plans	924	992
Direct benefit payments	576	671
Total	$ 1,962	$ 2,085

Total expected benefit payments, pension benefit plans and nonpension postretirement plans

($ in millions)

	Qualified U.S. Plan Payments	Nonqualified U.S. Plans Payments	Qualified Non-U.S. Plans Payments	Nonqualified Non-U.S. Plans Payments	Total Expected Benefit Payments
2023	$1,757	$ 124	$ 1,893	$ 342	$ 4,115
2024	1,791	123	1,869	323	4,106
2025	1,813	121	1,879	324	4,137
2026	1,765	119	1,866	328	4,077
2027	1,712	116	1,846	321	3,996
2028-2032	7,792	538	8,876	1,548	18,754

($ in millions)

	U.S. Plan Payments	Qualified Non-U.S. Plans Payments	Nonqualified Non-U.S. Plans Payments	Total Expected Benefit Payments
2023	$ 326	$ 17	$ 23	$ 367
2024	253	18	23	294
2025	238	19	23	280
2026	229	20	22	272
2027	220	21	22	263
2028-2032	1,043	122	106	1,271

Defined benefit pension plans with accumulated benefit obligations (ABO) in excess of plan assets

($ in millions)

	2022		**2021**	
At December 31:	**Benefit Obligation**	**Plan Assets**	**Benefit Obligation**	**Plan Assets**
Plans with PBO in excess of plan assets	$17,220	$ 9,694	$25,204	$13,908
Plans with ABO in excess of plan assets	16,979	9,694	24,853	13,908
Plans with plan assets in excess of PBO	35,534	43,770	68,075	77,924

Schedule of nonpension postretirement benefit plan with APBO in excess of plan assets

($ in millions)

At December 31:	2022 Benefit Obligation	2022 Plan Assets	2021 Benefit Obligation	2021 Plan Assets
Plans with APBO in excess of plan assets	$2,893	$32	$4,042	$40
Plans with plan assets in excess of APBO	7	7	—	—

Significant Accounting Policies - Basis of Presentation (Details) $ in Millions	1 Months Ended	3 Months Ended	12 Months Ended					
	Sep. 30, 2022 USD ($) contract	Sep. 30, 2022 USD ($)	Dec. 31, 2022 USD ($)	Dec. 31, 2021 USD ($)	Dec. 31, 2020 USD ($)	May 23, 2022	Mar. 31, 2022 USD ($)	Nov. 03, 2021
Common stocks, including additional paid in capital			$ 58,343	$ 57,319				
Retained earnings			(149,825)	(154,209)				
Number of annuity contracts entered into by the company relating to the change in PPP | contract	2							
Benefit plan obligation and plan assets transferred to insurers	$ 16,000							
Pension settlement charge		$ 5,900	5,894					
Pension settlement charge, net of tax		$ 4,400	4,400					
Benefit from income taxes			$ (626)	124	$ (1,360)			
Kyndryl Holdings, Inc								
Ownership interest by stockholders (in percent)			0.00%			19.90%		19.90%
Total of Kyndryl stock distributed to IBM stockholders of record as of 10/25/2021 (as a percentage)								80.10%
Share conversion ratio								0.2
Other (income) and expenses								
Noncontrolling interest amounts, net of tax			$ 20	$ 19	$ 13			
Revision of Prior Period, Reclassification, Adjustment								
Common stocks, including additional paid in capital							$ 63	
Retained earnings							$ (63)	

Significant Accounting Policies - Use of Estimates (Details) - USD ($) $ in Millions	12 Months Ended			
	Dec. 31, 2023	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Change in Accounting Estimate [Line Items]				
Income from continuing operations before income taxes		$ 1,156	$ 4,837	$ 2,572
Expected | Service Life | Server and Network Equipment New Assets				
Change in Accounting Estimate [Line Items]				
Estimated useful lives	6 years			
Expected | Service Life | Server and Network Equipment Used Assets				
Change in Accounting Estimate [Line Items]				
Estimated useful lives	4 years			
Previously Reported | Service Life | Server and Network Equipment New Assets				
Change in Accounting Estimate [Line Items]				
Estimated useful lives		5 years		
Previously Reported | Service Life | Server and Network Equipment Used Assets				
Change in Accounting Estimate [Line Items]				
Estimated useful lives		3 years		
Minimum | Expected				
Change in Accounting Estimate [Line Items]				
Change in income from continuing operations before income taxes	$ 200			

Significant Accounting Policies - Billing and Financing Components (Details)	12 Months Ended
	Dec. 31, 2022
Revenue	
Payment due period from receipt of invoice, per standard billing terms	30 days
Practical expedient, financing components	true

Significant Accounting Policies - Revenue Recognition for Major Categories of Revenue (Details) - USD ($) $ in Millions	12 Months Ended Dec. 31, 2022	Dec. 31, 2021
Disaggregation of Revenue [Line Items]		
Amount of revenue deferred and recognized over the shipping period	$ 0	
Services		
Disaggregation of Revenue [Line Items]		
Contract term, high end of range	5 years	
Deferred income	$ 3,241	$ 3,460
Contract assets	426	430
Unbilled services accounts receivable included in notes and accounts receivable - trade	$ 788	$ 723
Services | Maximum		
Disaggregation of Revenue [Line Items]		
Contract term, low end of range	1 year	
Open Source Software..		
Disaggregation of Revenue [Line Items]		
Standalone selling price	$ 0	
Allocation of consideration to open source software license	0	
Revenue recognized when control is transferred to client	$ 0	

Significant Accounting Policies - Software Costs (Details) - Capitalized software - Maximum	12 Months Ended
	Dec. 31, 2022
Intangible assets	
Amortization period	3 years
Cost of sales	
Intangible assets	
Amortization period	3 years
SG&A expense or Cost of sales	
Intangible assets	
Amortization period	3 years

Significant Accounting Policies - Incremental Costs of Obtaining a Contract (Details)	12 Months Ended Dec. 31, 2022
Incremental Costs of Obtaining a Contract	
Capitalized costs to obtain contract, expected customer relationship period as amortization period	3 years
Practical expedient, incremental costs of obtaining a contract	true

Significant Accounting Policies - Product Warranties (Details)	12 Months Ended Dec. 31, 2022
Minimum	
Product Warranties	
Product warranty term	1 year
Maximum	
Product Warranties	
Product warranty term	3 years

Significant Accounting Policies - Advertising and Promotional Expense (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Significant Accounting Policies			
Advertising and promotional expense	$ 1,330	$ 1,413	$ 1,509

Significant Accounting Policies - Other (Income) and Expense (Details) - USD ($) $ in Millions	3 Months Ended	12 Months Ended		
	Sep. 30, 2022	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Significant Accounting Policies				
Foreign currency transaction losses/(gains)		$ (643)	$ (204)	$ 114
(Gains)/losses on derivative instruments		225	205	(101)
Interest income		(162)	(52)	(105)
Net (gains)/losses from securities and investment assets		278	(133)	(22)
Retirement-related costs/(income)		6,548	1,282	1,073
Other		(443)	(225)	(156)
Total other (income) and expense		5,803	$ 873	$ 802
Pension settlement charge	$ 5,900	$ 5,894		

Significant Accounting Policies - Government Assistance (Details)	12 Months Ended
	Dec. 31, 2022
Minimum	
Government Assistance [Line Items]	
Government assistance, grant term	1 year
Maximum	
Government Assistance [Line Items]	
Government assistance, grant term	5 years

Significant Accounting Policies - Depreciation (Details)	12 Months Ended Dec. 31, 2022
Buildings | Minimum	
Depreciation and amortization	
Estimated useful lives of certain depreciable assets	30 years
Buildings | Maximum	
Depreciation and amortization	
Estimated useful lives of certain depreciable assets	50 years
Building equipment | Minimum	
Depreciation and amortization	
Estimated useful lives of certain depreciable assets	10 years
Building equipment | Maximum	
Depreciation and amortization	
Estimated useful lives of certain depreciable assets	20 years
Land improvements	
Depreciation and amortization	
Estimated useful lives of certain depreciable assets	20 years
Production, engineering, office and other equipment | Minimum	
Depreciation and amortization	
Estimated useful lives of certain depreciable assets	2 years
Production, engineering, office and other equipment | Maximum	
Depreciation and amortization	
Estimated useful lives of certain depreciable assets	20 years
Information technology equipment including rental machines | Minimum	
Depreciation and amortization	
Estimated useful lives of certain depreciable assets	1 year 6 months
Information technology equipment including rental machines | Maximum	
Depreciation and amortization	
Estimated useful lives of certain depreciable assets	5 years
Leasehold improvements | Maximum	
Depreciation and amortization	
Estimated useful lives of certain depreciable assets	25 years

Significant Accounting Policies - Amortization (Details)	12 Months Ended
	Dec. 31, 2022
Capitalized software | Maximum	
Intangible assets	
Amortization period	3 years
Other** | Minimum	
Intangible assets	
Amortization period	1 year
Other** | Maximum	
Intangible assets	
Amortization period	20 years

Significant Accounting Policies - Stock-Based Compensation (Details)	12 Months Ended Dec. 31, 2022
Performance Share Units	
Stock-Based Compensation	
Vesting period	3 years
Minimum | Restricted Stock Units	
Stock-Based Compensation	
Vesting period	1 year
Maximum | Restricted Stock Units	
Stock-Based Compensation	
Vesting period	4 years

Significant Accounting Policies - Fair Value Measurement (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Significant Accounting Policies			
Impairment for credit losses	$ 0	$ 0	$ 0

Significant Accounting Policies - Marketable Securities (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Significant Accounting Policies		
Alliance equity securities	$ 142	$ 159

Significant Accounting Policies - Transfers of Financial Assets (Details) - USD ($) $ in Billions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Significant Accounting Policies			
Gross proceeds from transfers of notes and accounts receivable trade	$ 3.3	$ 1.8	$ 2.2
Accounts receivable sold and derecognized that remain uncollected from customers	$ 1.0	$ 0.7	$ 0.4

Significant Accounting Policies - Financing Receivables (Details)	12 Months Ended	
	Dec. 31, 2022 segment item	Dec. 31, 2021 segment item
Financing receivables		
Number of portfolio segments | segment	2	2
Number of classes of financing receivable | item	3	3
Client Financing Receivables		
Financing receivables		
Period after which financing receivables become past due	90 days	
Maximum		
Financing receivables		
Reasonable and supportable economic forecast duration	2 years	

Significant Accounting Policies - Leases (Details)	12 Months Ended Dec. 31, 2022
Lessee, Lease, Description [Line Items]	
Lessee, Operating Lease, Existence of Option to Extend [true false]	true
Lessee, Operating Lease, Existence of Option to Terminate [true false]	true
Lease, Practical Expedient, Lessor Single Lease Component [true false]	true
Real estate | Weighted-Average	
Lessee, Lease, Description [Line Items]	
Lease terms (in years)	5 years
Equipment leases | Minimum	
Lessee, Lease, Description [Line Items]	
Lease terms (in years)	2 years
Equipment leases | Maximum	
Lessee, Lease, Description [Line Items]	
Lease terms (in years)	5 years

Significant Accounting Policies - Common Stock (Details) - $ / shares	Dec. 31, 2022	Dec. 31, 2021
Significant Accounting Policies		
Common stock, Par value (in dollars per share)	$ 0.20	$ 0.20

Separation of Kyndryl (Details) - USD ($)	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Kyndryl Holdings, Inc			
Discontinued Operations			
Costs to Kyndryl for upgraded hardware	$ 0		
Upgraded hardware period	2 years		
Kyndryl Holdings, Inc | Maximum			
Discontinued Operations			
Transition services period	2 years		
Managed infrastructure services unit | Disposed by separation			
Discontinued Operations			
Separation costs	$ 5,000,000	$ 1,042,000,000	$ 21,000,000

Separation of Kyndryl - Net Impact to stockholders equity (Details) - Managed infrastructure services unit - Disposed by separation $ in Millions	12 Months Ended Dec. 31, 2021 USD ($)
Divestitures	
Change in stockholders equity	$ (7,203)
Retained Earnings	
Divestitures	
Change in stockholders equity	(8,404)
Accumulated Other Comprehensive Income/(Loss)	
Divestitures	
Change in stockholders equity	(1,264)
Non-Controlling Interests	
Divestitures	
Change in stockholders equity	$ (62)

Separation of Kyndryl - Major categories of income (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Discontinued Operations			
Provision for income taxes	$ 124	$ 714	$ 484
Income/(loss) from discontinued operations, net of tax	(143)	1,030	1,658
Managed infrastructure services unit | Disposed by separation			
Discontinued Operations			
Revenue	7	14,994	18,441
Cost of sales	24	11,270	13,651
Selling, general and administrative	86	1,869	1,641
Kyndryl-related workforce rebalancing charges		31	884
RD&E and Other (income) and expense	(84)	80	124
Income/(loss) from discontinued operations before income taxes	(20)	1,744	2,142
Provision for income taxes	124	714	484
Income/(loss) from discontinued operations, net of tax	$ (143)	1,030	1,658
Microelectronics Business			
Discontinued Operations			
Income/(loss) from discontinued operations, net of tax		$ (1)	$ 89

Separation of Kyndryl - Cash flows (Details) - Managed infrastructure services unit - Disposed by separation - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Divestitures			
Net cash provided by/(used in) operating activities		$ 1,612	$ 4,403
Net cash provided by/(used in) investing activities	$ 48	$ (380)	$ (935)

Revenue Recognition - Disaggregation of Revenue by Major Products and Service Offerings (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Revenue by Major Products/Service Offerings			
Total Revenue	$ 60,530	$ 57,350	$ 55,179
Business Segments			
Revenue by Major Products/Service Offerings			
Total Revenue	60,077	56,231	53,888
Other			
Revenue by Major Products/Service Offerings			
Revenue	453	1,119	1,291
Software | Business Segments			
Revenue by Major Products/Service Offerings			
Revenue	25,037	23,426	22,124
Total Revenue	25,037	23,426	22,124
Consulting | Business Segments			
Revenue by Major Products/Service Offerings			
Revenue	19,107	17,844	16,257
Total Revenue	19,107	17,844	16,257
Infrastructure | Business Segments			
Revenue by Major Products/Service Offerings			
Revenue	15,288	14,188	14,533
Total Revenue	15,288	14,188	14,533
Financing | Business Segments			
Revenue by Major Products/Service Offerings			
Financial Services Revenue	645	774	975
Total Revenue	645	774	975
Hybrid Platform & Solutions | Software | Business Segments			
Revenue by Major Products/Service Offerings			
Revenue	17,866	17,036	15,518
Transaction Processing | Software | Business Segments			
Revenue by Major Products/Service Offerings			
Revenue	7,171	6,390	6,606
Business Transformation | Consulting | Business Segments			
Revenue by Major Products/Service Offerings			
Revenue	8,834	8,284	7,193
Application Operations | Consulting | Business Segments			
Revenue by Major Products/Service Offerings			
Revenue	6,508	6,095	5,931
Technology Consulting | Consulting | Business Segments			
Revenue by Major Products/Service Offerings			

Revenue	3,765	3,466	3,133
Hybrid Infrastructure | Infrastructure | Business Segments			
Revenue by Major Products/Service Offerings			
Revenue	9,451	8,167	8,415
Infrastructure Support | Infrastructure | Business Segments			
Revenue by Major Products/Service Offerings			
Revenue	$ 5,837	$ 6,021	$ 6,118

Revenue Recognition - Hybrid Cloud Revenue by Segment (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Revenue by Major Products/Service Offerings			
Hybrid cloud revenue	$ 22,377	$ 20,210	$ 16,838
Software			
Revenue by Major Products/Service Offerings			
Hybrid cloud revenue	9,321	8,386	6,517
Consulting			
Revenue by Major Products/Service Offerings			
Hybrid cloud revenue	9,019	7,852	5,861
Infrastructure			
Revenue by Major Products/Service Offerings			
Hybrid cloud revenue	3,895	3,645	4,039
Other.			
Revenue by Major Products/Service Offerings			
Hybrid cloud revenue	$ 142	$ 328	$ 422

Revenue Recognition - Disaggregation of Revenue by Geography (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Revenue by Geography			
Revenues	$ 60,530	$ 57,350	$ 55,179
Americas			
Revenue by Geography			
Revenues	31,057	28,299	27,119
EMEA			
Revenue by Geography			
Revenues	17,950	17,447	16,767
Asia Pacific			
Revenue by Geography			
Revenues	$ 11,522	$ 11,604	$ 11,293

Revenue Recognition - Remaining Performance Obligations (Details) $ in Billions	12 Months Ended Dec. 31, 2022 USD ($)
Revenue Recognition	
Practical expedient, remaining performance obligations	true
Remaining performance obligations related to customer contracts that are unsatisfied or partially unsatisfied	$ 59

Revenue Recognition - Remaining Performance Obligations, Expected Timing of Satisfaction (Details)	Dec. 31, 2022
Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Start Date [Axis]: 2023-01-01	
Remaining Performance Obligations	
Percentage of remaining performance obligation expected to be recognized	72.00%
Duration of expected recognition period for remaining performance obligation	2 years
Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Start Date [Axis]: 2025-01-01	
Remaining Performance Obligations	
Percentage of remaining performance obligation expected to be recognized	26.00%
Minimum | Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Start Date [Axis]: 2025-01-01	
Remaining Performance Obligations	
Duration of expected recognition period for remaining performance obligation	3 years
Maximum | Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Start Date [Axis]: 2025-01-01	
Remaining Performance Obligations	
Duration of expected recognition period for remaining performance obligation	5 years

Revenue Recognition - Performance Obligations Satisfied or Partially Satisfied in Prior Periods (Details) $ in Millions	12 Months Ended Dec. 31, 2022 USD ($)
Revenue Recognition	
Impact to revenue from performance obligations satisfied (or partially satisfied) in previous periods	$ (55)

Revenue Recognition - Reconciliation of Contract Balances (Details) - USD ($) $ in Millions	12 Months Ended Dec. 31, 2022	Dec. 31, 2021
Reconciliation of Contract Balances		
Notes and accounts receivable-trade (net of allowances of $233 in 2022 and $218 in 2021)	$ 6,541	$ 6,754
Notes and accounts receivable - trade, allowances	233	218
Contract assets	464	471
Deferred income (current)	12,032	12,518
Deferred income (noncurrent)	3,499	$ 3,577
Revenue recognized that was included in deferred income at the beginning of the period	$ 10,200	

Revenue Recognition - Trade Allowance for Credit Losses (Details) - USD ($) $ in Millions	12 Months Ended	
	Dec. 31, 2022	Dec. 31, 2021
Roll forward of notes and accounts receivable - trade allowance for credit losses		
Allowance for Credit Loss, Beginning Balance	$ 218	$ 260
Additions / (Releases)	59	(15)
Write-offs	(31)	(28)
Foreign currency and Other	(14)	1
Allowance for Credit Loss, Ending Balance	$ 233	$ 218

Revenue Recognition - Deferred Contract Costs (Details) - USD ($) $ in Millions	12 Months Ended	
	Dec. 31, 2022	Dec. 31, 2021
Deferred Contract Costs		
Deferred contract costs	$ 1,833	$ 2,022
Deferred contract costs, current	967	1,097
Deferred contract costs, noncurrent	866	924
Amortization of deferred contract costs	1,609	
Costs to obtain a contract		
Deferred Contract Costs		
Deferred contract costs	563	476
Deferred setup costs		
Deferred Contract Costs		
Deferred contract costs	456	546
Other deferred fulfillment costs		
Deferred Contract Costs		
Deferred contract costs	$ 814	$ 1,000

Segments - Results of Continuing Operations (Details) - USD ($) $ in Millions	3 Months Ended	12 Months Ended		
	Dec. 31, 2020	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Segment Information				
Revenue		$ 60,530	$ 57,350	$ 55,179
Pre-tax income from continuing operations		1,156	4,837	2,572
Charge for structural actions	$ 1,472			
Software				
Segment Information				
Charge for structural actions	600			
Consulting				
Segment Information				
Charge for structural actions	400			
Infrastructure				
Segment Information				
Charge for structural actions	$ 400			
Business Segments				
Segment Information				
Revenue		60,077	56,231	53,888
Pre-tax income from continuing operations		$ 10,441	$ 8,765	6,561
Revenue year-to-year change (as a percent)		6.80%	4.30%	
Pre-tax income year-to-year change (as a percent)		19.10%	33.60%	
Pre-tax income margin (as a percent)		17.40%	15.60%	
Business Segments | Software				
Segment Information				
Revenue		$ 25,037	$ 23,426	22,124
Pre-tax income from continuing operations		$ 6,162	$ 4,849	3,423
Revenue year-to-year change (as a percent)		6.90%	5.90%	
Pre-tax income year-to-year change (as a percent)		27.10%	41.70%	
Pre-tax income margin (as a percent)		24.60%	20.70%	
Business Segments | Consulting				
Segment Information				
Revenue		$ 19,107	$ 17,844	16,257
Pre-tax income from continuing operations		$ 1,677	$ 1,449	1,034
Revenue year-to-year change (as a percent)		7.10%	9.80%	
Pre-tax income year-to-year change (as a percent)		15.70%	40.10%	
Pre-tax income margin (as a percent)		8.80%	8.10%	
Business Segments | Infrastructure				
Segment Information				
Revenue		$ 15,288	$ 14,188	14,533
Pre-tax income from continuing operations		$ 2,262	$ 2,025	1,654
Revenue year-to-year change (as a percent)		7.80%	(2.40%)	
Pre-tax income year-to-year change (as a percent)		11.70%	22.40%	

Pre-tax income margin (as a percent)	14.80%	14.30%	
Business Segments | Financing			
Segment Information			
Revenue	$ 645	$ 774	975
Pre-tax income from continuing operations	$ 340	$ 441	$ 449
Revenue year-to-year change (as a percent)	(16.60%)	(20.60%)	
Pre-tax income year-to-year change (as a percent)	(22.90%)	(1.80%)	
Pre-tax income margin (as a percent)	52.60%	57.00%	

Segments - Revenue Reconciliation (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Revenue			
Revenue	$ 60,530	$ 57,350	$ 55,179
Business Segments			
Revenue			
Revenue	60,077	56,231	53,888
Other			
Revenue			
Other - divested businesses	318	785	904
Other revenue	$ 135	$ 335	$ 387

Segments - Pre-Tax Income Reconciliation (Details) - USD ($) $ in Millions	3 Months Ended		12 Months Ended		
	Sep. 30, 2022	Dec. 31, 2020	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Pre-tax income from continuing operations					
Amortization of acquired intangible assets			$ (1,747)	$ (1,838)	$ (1,832)
Acquisition-related charges			(18)	(43)	(13)
Non-operating retirement-related (costs)/income			(6,548)	(1,282)	(1,073)
Kyndryl-related impacts			(351)	118	
Other - divested businesses			91	(102)	(70)
Income from continuing operations before income taxes			1,156	4,837	2,572
Charge for structural actions		$ 1,472			
Pre-tax pension settlement charge	$ 5,900		5,894		
Business Segments					
Pre-tax income from continuing operations					
Income from continuing operations before income taxes			10,441	8,765	6,561
Internal transactions					
Pre-tax income from continuing operations					
Income from continuing operations before income taxes			(10)	(7)	(28)
Unallocated corporate amounts					
Pre-tax income from continuing operations					
Income from continuing operations before income taxes			$ (702)	$ (774)	$ (973)

Segments - Assets and Other Items (Details) $ in Millions	12 Months Ended		
	Dec. 31, 2022 USD ($) segment	Dec. 31, 2021 USD ($)	Dec. 31, 2020 USD ($)
Segment Information			
Number of business segments to which assets are assigned when ownership is shared between several segments | segment	1		
Assets	$ 127,243	$ 132,001	$ 155,971
Interest expense	1,216	1,155	1,288
Business Segments			
Segment Information			
Assets	98,667	98,980	105,336
Depreciation/amortization of intangibles	2,674	2,681	2,753
Capital expenditures/investments in intangibles	1,359	1,439	1,699
Interest income	582	628	834
Interest expense	175	129	307
Business Segments | Software			
Segment Information			
Assets	57,186	58,420	57,436
Depreciation/amortization of intangibles	968	983	1,007
Capital expenditures/investments in intangibles	446	559	538
Business Segments | Consulting			
Segment Information			
Assets	13,481	11,914	10,548
Depreciation/amortization of intangibles	289	250	207
Capital expenditures/investments in intangibles	33	55	26
Business Segments | Infrastructure			
Segment Information			
Assets	12,243	11,766	12,378
Depreciation/amortization of intangibles	1,403	1,399	1,419
Capital expenditures/investments in intangibles	853	792	1,093
Business Segments | Financing			
Segment Information			
Assets	15,757	16,880	24,974
Depreciation/amortization of intangibles	14	49	120
Capital expenditures/investments in intangibles	27	33	41
Interest income	582	628	834
Interest expense	$ 175	$ 129	$ 307

Segments - Asset Reconciliation (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Assets			
Assets	$ 127,243	$ 132,001	$ 155,971
Deferred tax assets	6,256	7,370	
Plant, other property and equipment	5,308	5,668	6,108
Operating right-of-use assets	2,878	3,222	3,566
Pension assets	8,236	9,850	
Business Segments			
Assets			
Assets	98,667	98,980	105,336
Internal transactions			
Assets			
Assets	(1,062)	(1,608)	(4,686)
Other			
Assets			
Assets	100	1,109	1,376
Unallocated amounts			
Assets			
Cash and marketable securities	8,138	6,222	12,463
Notes and accounts receivable	281	1,622	1,655
Deferred tax assets	6,078	7,158	8,175
Plant, other property and equipment	1,760	2,196	2,449
Operating right-of-use assets	1,586	1,945	2,368
Pension assets	8,236	9,848	7,557
Other	$ 3,459	$ 4,530	3,514
Discontinued Operations			$ 15,764

Segments - Geographic Information (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Segment Information			
Revenue	$ 60,530	$ 57,350	$ 55,179
Plant and Other Property - Net	5,308	5,668	6,108
Operating right-of-use assets	$ 2,878	$ 3,222	$ 3,566
Revenue | Major Client			
Segment Information			
Number of clients representing 10% or more of the company's total revenue	0	0	0
U.S. | Revenue | Geographic Information			
Segment Information			
Revenue	$ 25,098	$ 22,893	$ 22,258
U.S. | Revenue | Geographic Information | Minimum			
Segment Information			
Concentration Risk, Percentage	10.00%	10.00%	10.00%
U.S. | Plant and Other Property - Net | Geographic Information			
Segment Information			
Plant and Other Property - Net	$ 3,209	$ 3,375	$ 3,452
U.S. | Plant and Other Property - Net | Geographic Information | Minimum			
Segment Information			
Concentration Risk, Percentage	10.00%	10.00%	10.00%
U.S. | Operating Right-Of-Use Assets - Net | Geographic Information			
Segment Information			
Operating right-of-use assets	$ 1,074	$ 1,148	$ 1,165
U.S. | Operating Right-Of-Use Assets - Net | Geographic Information | Minimum			
Segment Information			
Concentration Risk, Percentage	10.00%	10.00%	10.00%
Japan | Revenue | Geographic Information			
Segment Information			
Revenue	$ 5,453	$ 5,648	$ 5,680
Japan | Revenue | Geographic Information | Minimum			
Segment Information			
Concentration Risk, Percentage	10.00%	10.00%	10.00%
Japan | Operating Right-Of-Use Assets - Net | Geographic Information			
Segment Information			
Operating right-of-use assets	$ 259	$ 398	$ 532
Japan | Operating Right-Of-Use Assets - Net | Geographic Information | Minimum			
Segment Information			
Concentration Risk, Percentage	10.00%	10.00%	10.00%
Non-U.S. | Plant and Other Property - Net | Geographic Information			

Segment Information			
Plant and Other Property - Net	$ 2,100	$ 2,293	$ 2,656
Non-U.S. | Plant and Other Property - Net | Geographic Information | Minimum			
Segment Information			
Concentration Risk, Percentage	10.00%	10.00%	10.00%
Other Countries | Revenue | Geographic Information			
Segment Information			
Revenue	$ 29,980	$ 28,810	$ 27,241
Other Countries | Revenue | Geographic Information | Minimum			
Segment Information			
Concentration Risk, Percentage	10.00%	10.00%	10.00%
Other Countries | Operating Right-Of-Use Assets - Net | Geographic Information			
Segment Information			
Operating right-of-use assets	$ 1,545	$ 1,676	$ 1,870
Other Countries | Operating Right-Of-Use Assets - Net | Geographic Information | Minimum			
Segment Information			
Concentration Risk, Percentage	10.00%	10.00%	10.00%

Segments - Revenue by Product or Service (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Revenue by Classes of Similar Products or Services			
Revenue	$ 60,530	$ 57,350	$ 55,179
Software | Software.			
Revenue by Classes of Similar Products or Services			
Revenue	21,374	19,845	18,771
Software | Services.			
Revenue by Classes of Similar Products or Services			
Revenue	3,575	3,485	3,253
Software | Systems			
Revenue by Classes of Similar Products or Services			
Revenue	88	96	100
Consulting | Software.			
Revenue by Classes of Similar Products or Services			
Revenue	170	173	183
Consulting | Services.			
Revenue by Classes of Similar Products or Services			
Revenue	18,857	17,563	15,986
Consulting | Systems			
Revenue by Classes of Similar Products or Services			
Revenue	80	108	89
Infrastructure | Maintenance			
Revenue by Classes of Similar Products or Services			
Revenue	4,590	4,743	4,804
Infrastructure | Servers			
Revenue by Classes of Similar Products or Services			
Revenue	4,471	3,483	3,686
Infrastructure | Storage			
Revenue by Classes of Similar Products or Services			
Revenue	1,989	1,919	1,824
Infrastructure | Software.			
Revenue by Classes of Similar Products or Services			
Revenue	1,585	1,426	1,563
Infrastructure | Services.			
Revenue by Classes of Similar Products or Services			
Revenue	2,653	2,616	2,656
Financing | -Financing			
Revenue by Classes of Similar Products or Services			
Revenue	582	628	834
Financing | Used equipment sales			
Revenue by Classes of Similar Products or Services			

Revenue	$ 64	$ 145	$ 140

Acquisitions & Divestitures - (Details) $ in Millions	Dec. 31, 2023 USD ($)	12 Months Ended Dec. 31, 2022 USD ($) item	Dec. 31, 2021 USD ($) item	Dec. 31, 2020
2022 Acquisitions				
Acquisitions				
Number of acquisitions | item		8		
Aggregate acquisitions cost		$ 2,650		
Cash consideration payable		$ 238		
2022 Acquisitions | Expected				
Acquisitions				
Cash to be remitted	$ 139			
Acquisitions 2022, 2021, and 2020				
Acquisitions				
Percentage of business acquired (as a percent)		100.00%	100.00%	100.00%
2021 Acquisitions				
Acquisitions				
Number of acquisitions | item			15	
Aggregate acquisitions cost			$ 3,341	

Acquisitions & Divestitures - 2022 Purchase Price Allocation (Details) - USD ($) $ in Millions	12 Months Ended Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Acquisitions			
Goodwill	$ 55,949	$ 55,643	$ 53,765
2022 Acquisitions | Client relationships			
Acquisitions			
Weighted average useful life	7 years		
2022 Acquisitions | Completed technology | Minimum			
Acquisitions			
Weighted average useful life	4 years		
2022 Acquisitions | Completed technology | Maximum			
Acquisitions			
Weighted average useful life	7 years		
2022 Acquisitions | Trademarks | Minimum			
Acquisitions			
Weighted average useful life	2 years		
2022 Acquisitions | Trademarks | Maximum			
Acquisitions			
Weighted average useful life	3 years		
Octo			
Acquisitions			
Current assets	$ 119		
Property, plant, and equipment/noncurrent assets	13		
Goodwill	826		
Total assets acquired	1,374		
Current liabilities	54		
Noncurrent liabilities	57		
Total liabilities assumed	110		
Total purchase price	$ 1,263		
Weighted average useful life	6 years		
Estimated percent of goodwill deductible for tax purposes	24.00%		
Octo | Client relationships			
Acquisitions			
Intangible assets	$ 370		
Octo | Completed technology			
Acquisitions			
Intangible assets	30		
Octo | Trademarks			
Acquisitions			
Intangible assets	15		
Other Acquisitions 2022			
Acquisitions			

Current assets	87
Property, plant, and equipment/noncurrent assets	7
Goodwill	1,062
Total assets acquired	1,460
Current liabilities	51
Noncurrent liabilities	22
Total liabilities assumed	73
Total purchase price	$ 1,387
Weighted average useful life	6 years 8 months 12 days
Estimated percent of goodwill deductible for tax purposes	52.00%
Other Acquisitions 2022 | Client relationships	
Acquisitions	
Intangible assets	$ 204
Other Acquisitions 2022 | Completed technology	
Acquisitions	
Intangible assets	90
Other Acquisitions 2022 | Trademarks	
Acquisitions	
Intangible assets	10
Software | Octo	
Acquisitions	
Goodwill	120
Software | Other Acquisitions 2022	
Acquisitions	
Goodwill	438
Consulting | Octo	
Acquisitions	
Goodwill	706
Consulting | Other Acquisitions 2022	
Acquisitions	
Goodwill	$ 624

Acquisitions & Divestitures - 2021 Purchase Price Allocation (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2020
Acquisitions			
Goodwill	$ 55,643	$ 55,949	$ 53,765
2021 Acquisitions | Client relationships | Minimum			
Acquisitions			
Weighted average useful life	4 years		
2021 Acquisitions | Client relationships | Maximum			
Acquisitions			
Weighted average useful life	10 years		
2021 Acquisitions | Completed technology | Minimum			
Acquisitions			
Weighted average useful life	4 years		
2021 Acquisitions | Completed technology | Maximum			
Acquisitions			
Weighted average useful life	7 years		
2021 Acquisitions | Trademarks | Minimum			
Acquisitions			
Weighted average useful life	1 year		
2021 Acquisitions | Trademarks | Maximum			
Acquisitions			
Weighted average useful life	6 years		
Turbonomic			
Acquisitions			
Current assets	$ 115		
Property, plant, and equipment/noncurrent assets	11		
Goodwill	1,390		
Total assets acquired	1,957		
Current liabilities	73		
Noncurrent liabilities	55		
Total liabilities assumed	128		
Total purchase price	$ 1,829		
Weighted average useful life	9 years		
Estimated percent of goodwill deductible for tax purposes	0.00%		
Turbonomic | Client relationships			
Acquisitions			
Intangible assets	$ 309		
Turbonomic | Completed technology			
Acquisitions			
Intangible assets	117		
Turbonomic | Trademarks			
Acquisitions			

Intangible assets	15
Other Acquisitions 2021	
Acquisitions	
Current assets	112
Property, plant, and equipment/noncurrent assets	18
Goodwill	1,073
Total assets acquired	1,636
Current liabilities	68
Noncurrent liabilities	56
Total liabilities assumed	124
Total purchase price	$ 1,512
Weighted average useful life	6 years 7 months 6 days
Estimated percent of goodwill deductible for tax purposes	9.00%
Other Acquisitions 2021 | Client relationships	
Acquisitions	
Intangible assets	$ 196
Other Acquisitions 2021 | Completed technology	
Acquisitions	
Intangible assets	206
Other Acquisitions 2021 | Trademarks	
Acquisitions	
Intangible assets	31
Software | Turbonomic	
Acquisitions	
Goodwill	1,325
Software | Other Acquisitions 2021	
Acquisitions	
Goodwill	440
Consulting | Turbonomic	
Acquisitions	
Goodwill	65
Consulting | Other Acquisitions 2021	
Acquisitions	
Goodwill	$ 633

Acquisitions & Divestitures - 2020 Acquisitions (Details) - 2020 Acquisitions $ in Millions	12 Months Ended Dec. 31, 2020 USD ($) item
Acquisitions	
Number of acquisitions | item	7
Aggregate acquisitions cost | $	$ 723

Acquisitions & Divestitures - 2020 Purchase Price Allocation (Details) - USD ($) $ in Millions	12 Months Ended Dec. 31, 2020	Dec. 31, 2022	Dec. 31, 2021
Acquisitions			
Goodwill	$ 53,765	$ 55,949	$ 55,643
2020 Acquisitions			
Acquisitions			
Current assets	35		
Property, plant, and equipment/noncurrent assets	7		
Goodwill	575		
Total assets acquired	784		
Current liabilities	19		
Noncurrent liabilities	41		
Total liabilities assumed	61		
Total purchase price	$ 723		
Weighted average useful life	6 years 9 months 18 days		
2020 Acquisitions | Client relationships			
Acquisitions			
Intangible assets	$ 84		
2020 Acquisitions | Client relationships | Minimum			
Acquisitions			
Weighted average useful life	5 years		
2020 Acquisitions | Client relationships | Maximum			
Acquisitions			
Weighted average useful life	7 years		
2020 Acquisitions | Completed technology			
Acquisitions			
Intangible assets	$ 73		
2020 Acquisitions | Completed technology | Minimum			
Acquisitions			
Weighted average useful life	2 years		
2020 Acquisitions | Completed technology | Maximum			
Acquisitions			
Weighted average useful life	7 years		
2020 Acquisitions | Trademarks			
Acquisitions			
Intangible assets	$ 11		
2020 Acquisitions | Trademarks | Minimum			
Acquisitions			
Weighted average useful life	1 year		
2020 Acquisitions | Trademarks | Maximum			
Acquisitions			
Weighted average useful life	7 years		

Software | 2020 Acquisitions	
Acquisitions	
Goodwill	$ 362
Consulting | 2020 Acquisitions	
Acquisitions	
Goodwill	205
Infrastructure | 2020 Acquisitions	
Acquisitions	
Goodwill	$ 8

Acquisitions & Divestitures - Divestitures (Details) $ in Millions	3 Months Ended	6 Months Ended	12 Months Ended			
	Jun. 30, 2022 USD ($)	Mar. 31, 2022 entity	Dec. 31, 2022 USD ($)	Dec. 31, 2022	Dec. 31, 2021 entity	Dec. 31, 2020 entity	Jan. 31, 2022 USD ($)
Divestitures							
Number of divestitures						0	
Healthcare software assets divestiture							
Divestitures							
Consideration | $							$ 1,065
Cash consideration received | $	$ 1,065						
Pre-tax gain on sale of business | $			$ 258				
Disposal Group, Not Discontinued Operation, Gain (Loss) on Disposal, Statement of Income or Comprehensive Income [Extensible Enumeration]				Other Income and Expense			
Other divestitures							
Divestitures							
Number of divestitures					1		
Other divestitures | Infrastructure | Divested businesses							
Divestitures							
Number of divestitures		1					
Software							
Divestitures							
Number of divestitures					2		

Research, Development & Engineering (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Research, Development & Engineering			
RD&E expense	$ 6,567	$ 6,488	$ 6,262
Scientific research, application of scientific advances, services and application	6,267	6,216	5,968
Software-related expenses	3,971	3,922	3,682
Product-related engineering expenses	$ 299	$ 272	$ 295

Taxes - Income before Income Taxes (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Taxes			
U.S. operations	$ (6,602)	$ (2,654)	$ (2,349)
Non-U.S. operations	7,758	7,491	4,921
Income from continuing operations before income taxes	$ 1,156	$ 4,837	$ 2,572

Taxes - Provision by Geographic Operations (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Taxes			
Provision for/(benefit from) income taxes U.S.	$ (626)	$ 124	$ (1,360)
Taxes			
Provision for/(benefit from) income taxes Non-U.S.	(2,272)	(969)	1,913
Taxes			
Provision for/(benefit from) income taxes	$ 1,645	$ 1,093	$ (3,273)

Taxes - Provision by Taxing Jurisdiction (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
U.S. federal			
Current	$ 391	$ 374	$ 312
Deferred	(2,645)	(1,358)	1,102
Total	(2,253)	(984)	1,414
U.S. state and local			
Current	184	161	345
Deferred	(486)	(370)	(358)
Total	(302)	(209)	(13)
Non-U.S.			
Current	1,676	1,342	1,208
Deferred	252	(25)	(3,969)
Total	1,929	1,317	(2,761)
Total continuing operations provision for/(benefit from) income taxes	(626)	124	(1,360)
Discontinued operations provision for/(benefit from) income taxes	124	714	484
Total provision for/(benefit from) income taxes	(503)	$ 838	$ (876)
Provision for social security, real estate, personal property and other taxes	2,800		
Total taxes included in net income	$ 2,300		

Taxes - Tax Rate Reconciliation (Details)	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Reconciliation of the statutory U.S. federal tax rate to the company's effective tax rate from continuing operations			
Statutory rate	21.00%	21.00%	21.00%
Tax differential on foreign income	(29.00%)	(10.00%)	(31.00%)
Intra-entity IP sale			(37.00%)
Domestic incentives	(24.00%)	(5.00%)	(9.00%)
State and local	(21.00%)	(3.00%)	0.00%
Other	(1.00%)	0.00%	3.00%
Effective rate	(54.20%)	2.60%	(53.00%)
Tax differential on foreign income, portion related to one-time pension settlement charge	(24.00%)		
Domestic incentives, portion related to one-time pension settlement charge	(20.00%)		
State and local, portion related to one-time pension settlement charge	(21.00%)		
Other, portion related to one-time pension settlement charge	(1.00%)		

Taxes - Tax Rate Reconciliation Narrative (Details)	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Effective income tax rate reconciliation, additional disclosures			
U.S. corporate tax rate	21.00%	21.00%	21.00%
Effective tax rate (as a percent)	(54.20%)	2.60%	(53.00%)

Taxes - Deferred Taxes (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Deferred Tax Assets			
Retirement benefits	$ 1,954	$ 3,142	
Leases	927	1,061	
Share-based and other compensation	608	661	
Domestic tax loss/credit carryforwards	1,798	1,619	
Deferred income	633	630	
Foreign tax loss/credit carryforwards	845	983	
Bad debt, inventory and warranty reserves	383	390	
Depreciation	247	249	
Restructuring charges	101	216	
Accruals	215	305	
Intangible assets	2,879	2,929	
Capitalized research and development	3,012	2,161	
Other	1,157	1,306	
Gross deferred tax assets	14,759	15,652	
Less: valuation allowance	770	883	$ 850
Net deferred tax assets	13,989	14,769	
Deferred Tax Liabilities			
Goodwill and intangible assets	3,156	3,306	
GILTI deferred taxes	2,483	3,257	
Leases and right of use assets	1,174	1,314	
Depreciation	505	518	
Retirement benefits	1,609	1,971	
Deferred transition costs	56	42	
Undistributed foreign earnings	87	131	
Other	955	817	
Gross deferred tax liabilities	$ 10,025	$ 11,356	

Taxes - Carryforwards (Details) $ in Millions	12 Months Ended Dec. 31, 2022 USD ($)
Loss and tax credit carryforwards	
Tax effect of foreign and domestic loss carryforwards	$ 722
Foreign and domestic tax credit carryforwards	$ 1,921
Minimum	
Loss and tax credit carryforwards	
Period for which substantially all loss and tax credit carryforwards are available	2 years
Period for which the majority of loss and tax credit carryforwards are available	10 years

Taxes - Unrecognized Tax Benefits Reconciliation (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Taxes			
Increase (decrease) in amount of unrecognized tax benefits	$ 19		
Reconciliation of the beginning and ending amount of unrecognized tax benefits			
Balance at January 1	8,709	$ 8,568	$ 7,146
Additions based on tax positions related to the current year	355	934	1,690
Additions for tax positions of prior years	174	247	159
Reductions for tax positions of prior years (including impacts due to a lapse of statute)	(470)	(688)	(408)
Settlements	(41)	(352)	(19)
Balance at December 31	$ 8,728	$ 8,709	$ 8,568

Taxes - Unrecognized Tax Benefits Additional Disclosures (Details) - USD ($) $ in Millions	12 Months Ended			
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2019
Taxes				
Unrecognized tax benefits	$ 8,728	$ 8,709	$ 8,568	$ 7,146
Offsetting tax benefits associated with timing adjustments, potential transfer pricing adjustments, and state income taxes	537			
Net unrecognized tax benefit amount that, if recognized, would favorably affect the company's effective tax rate	8,191	8,163	7,994	
Interest expense and penalties, net (benefit)/charge recognized	185	125	$ 117	
Interest and penalties accrued	956	$ 935		
Reasonably possible reduction in unrecognized tax benefits within the next 12 months	$ 168			

Taxes - Income Tax Assessments (Details) - USD ($) $ in Millions	3 Months Ended	
	Dec. 31, 2020	Dec. 31, 2022
Income tax examination		
Possible additional taxable income based on IRS assessment	$ 4,500	
India Tax Authorities		
Income tax examination		
Prepaid income taxes		$ 689

Taxes - Undistributed Foreign Earnings (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Taxes		
Deferred tax liability for undistributed foreign earnings not indefinitely reinvested	$ 87	$ 131
Undistributed earnings of foreign subsidiaries indefinitely reinvested in foreign operations	$ 384	

Earnings/(Loss) Per Share of Common Stock - Computation (Details) - USD ($) $ / shares in Units, $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Number of shares on which basic earnings per share is calculated:			
Weighted-average shares outstanding during period (in shares)	902,664,190	895,990,771	890,348,679
Add - Incremental shares under stock-based compensation plans (in shares)	7,593,455	6,883,290	4,802,940
Add - Incremental shares associated with contingently issuable shares (in shares)	2,011,417	1,766,940	1,412,352
Number of shares on which diluted earnings per share is calculated (in shares)	912,269,062	904,641,001	896,563,971
Net income on which basic earnings per share is calculated			
Income from continuing operations	$ 1,783	$ 4,712	$ 3,932
Income/(loss) from discontinued operations, net of tax	(143)	1,030	1,658
Net income on which basic earnings per share is calculated	1,639	5,743	5,590
Net income on which diluted earnings per share is calculated			
Income from continuing operations	1,783	4,712	3,932
Net income applicable to contingently issuable shares			(2)
Income from continuing operations on which diluted earnings per share is calculated	1,783	4,712	3,930
Income/(loss) from discontinued operations, net of tax, on which basic and diluted earnings per share is calculated	(143)	1,030	1,658
Net income on which diluted earnings per share is calculated	$ 1,639	$ 5,743	$ 5,588
Assuming dilution			
Continuing operations (in dollars per share)	$ 1.95	$ 5.21	$ 4.38
Discontinued operations (in dollars per share)	(0.16)	1.14	1.85
Total (in dollars per share) (Note I)	1.80	6.35	6.23
Basic			
Continuing operations (in dollars per share)	1.97	5.26	4.42
Discontinued operations (in dollars per share)	(0.16)	1.15	1.86
Total (in dollars per share) (Note I)	$ 1.82	$ 6.41	$ 6.28

Earnings/(Loss) Per Share of Common Stock - Antidilutive Stock Options (Details) - shares	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Stock options			
Antidilutive stock options			
Outstanding stock options not included in the computation of diluted earnings per share (in shares)	814,976	980,505	1,417,665

Financial Assets & Liabilities - Fair Value Measurements (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Debt securities - current	$ 852	$ 600
Recurring		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Cash equivalents	4,018	2,766
Total assets	5,179	4,608
Total liabilities	1,034	162
Recurring | Prepaid expenses and other current assets		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Derivative assets	271	358
Recurring | Investments and sundry assets		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Derivative assets	7	40
Recurring | Other accrued expenses and liabilities		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Derivative liabilities	546	60
Recurring | Other liabilities.		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Derivative liabilities	488	103
Recurring | Level 1		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Equity investments		0
Recurring | Level 1 | Money market funds		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Cash equivalents	306	263
Recurring | Level 2		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Debt securities - current	852	600
Recurring | Level 2 | Interest rate contracts		
Financial assets and financial liabilities measured at fair value on a recurring basis:		

Derivatives designated as hedging - Assets	3	12
Derivatives designated as hedging - Liabilities	336	
Recurring | Level 2 | Foreign exchange contracts		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Derivatives designated as hedging - Assets	184	359
Derivatives designated as hedging - Liabilities	674	117
Derivatives not designated as hedging - Assets	42	21
Derivatives not designated as hedging - Liabilities	16	42
Recurring | Level 2 | Time deposits and certificates of deposit		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Cash equivalents	3,712	2,502
Recurring | Level 1 And 2 | Equity contracts		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Derivatives not designated as hedging - Assets	49	6
Derivatives not designated as hedging - Liabilities	8	4
Recurring | Level 2 And 3		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Debt securities - noncurrent	$ 31	37
Recurring | Common Stock | Level 1		
Financial assets and financial liabilities measured at fair value on a recurring basis:		
Equity investments		$ 807

Financial Assets & Liabilities - Kyndryl Common Stock (Details) $ in Millions							1 Months Ended	12 Months Ended		
	Nov. 02, 2022 USD ($) $ / shares	Aug. 11, 2022 USD ($)	Aug. 05, 2022 USD ($)	May 23, 2022 USD ($) $ / shares	May 18, 2022 USD ($)	Nov. 03, 2021	Aug. 31, 2022 USD ($)	Dec. 31, 2022 USD ($)	Dec. 31, 2021 USD ($)	Dec. 31, 2020 USD ($)
Financial assets and financial liabilities measured at fair value on a recurring basis:										
Proceeds from short term credit			$ 300.0		$ 357.0					
Short-term debt (Note J&P)								$ 4,760.0	$ 6,787.0	
Strike price | $ / shares				$ 13.95						
Amount of converted extinguished debt		$ 229.0		$ 311.0						
Repayment of debt				$ 46.0			$ 71.0			
Unrealized gain (loss)								(225.0)	(205.0)	$ 101.0
Realized gain (loss)								(278.0)	133.0	$ 22.0
Other (income) and expense										
Financial assets and financial liabilities measured at fair value on a recurring basis:										
Realized gain (loss)								$ (83.0)		
Kyndryl Holdings, Inc										
Financial assets and financial liabilities measured at fair value on a recurring basis:										
Ownership interest by stockholders (in percent)				19.90%		19.90%		0.00%		
Period in which shares are intended to be disposed of after separation						12 months				
Settlement of the swap	$ 83.0									
Shares of Kyndryl common stock		22.3		22.3						
Percentage of retained interest in investment transferred				50.00%						
Strike price | $ / shares	$ 13.95									
Investment Owned, at Fair Value									807.0	

Kyndryl Holdings, Inc | Other (income) and expense

Financial assets and financial liabilities measured at fair value on a recurring basis:

Unrealized gain (loss)		$ 126.0
Realized gain (loss)	$ (351.0)	
Realized gain (loss)	(267.0)	
Realized gain (loss)	$ (83.0)	

Financial Assets & Liabilities - Not Measured at Fair Value (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Long-Term Debt		
Long-term debt (Note J&P)	$ 46,189	$ 44,917
Fair value of long-term debt	$ 42,514	$ 49,465

Inventory (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Inventory		
Finished goods	$ 158	$ 208
Work in process and raw materials	1,394	1,442
Total inventory	$ 1,552	$ 1,649

Financing Receivables - Payment Terms (Details)	12 Months Ended Dec. 31, 2022
Lease receivables | Minimum	
Financing receivables	
Financing receivable, payment terms	2 years
Lease receivables | Maximum	
Financing receivables	
Financing receivable, payment terms	6 years
Commercial financing receivables | Minimum	
Financing receivables	
Financing receivable, payment terms	30 days
Commercial financing receivables | Maximum	
Financing receivables	
Financing receivable, payment terms	90 days
Loan receivables | Maximum	
Financing receivables	
Financing receivable, payment terms	7 years

Financing Receivables - Components of Financing Receivables (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Components of the company's financing receivables			
Net investment in lease, gross	$ 4,023	$ 3,336	
Net investment in lease, unearned income	(351)	(223)	
Net investment in lease, unguaranteed residual value	422	335	
Net investment in lease, amortized cost	4,094	3,448	
Net investment in lease, allowance for credit loss	(60)	(64)	
Total net investment in lease, net	4,034	3,384	
Financing receivable and net investment in lease, gross	14,136	13,881	
Financing receivable and net investment in lease, unearned income	(790)	(576)	
Financing receivable and net investment in lease, unguaranteed residual value	422	335	
Financing receivable and net investment in lease, amortized cost	13,769	13,640	
Financing receivable and net investment in lease, allowance for credit loss	(173)	(201)	
Financing receivable and net investment in lease, net	13,596	13,439	
Asset Pledged as Collateral			
Components of the company's financing receivables			
Amortized Cost	349	408	
Current Assets			
Components of the company's financing receivables			
Net investment in lease, current	1,485	1,406	
Financing receivable and net investment in lease, net	7,790	8,014	
Noncurrent Assets			
Components of the company's financing receivables			
Net investment in lease, noncurrent	2,549	1,978	
Financing receivable and net investment in lease, net	5,806	5,425	
Loan receivables			
Components of the company's financing receivables			
Financing receivables, gross	8,875	9,303	
Unearned income	(439)	(353)	
Amortized Cost	8,437	8,949	
Allowance for credit losses	(108)	(131)	
Total financing receivables, net	8,329	8,818	
Financing receivables transferred	2	2,224	
Loan receivables | Current Assets			
Components of the company's financing receivables			
Total financing receivables, net	5,073	5,371	
Loan receivables | Noncurrent Assets			
Components of the company's financing receivables			

Total financing receivables, net	3,256	3,447	
Commercial financing receivables			
Components of the company's financing receivables			
Financing receivables transferred	9,029	7,359	
Commercial financing receivables, Held for investment			
Components of the company's financing receivables			
Financing receivables, gross	299	450	
Amortized Cost	299	450	
Allowance for credit losses	(5)	(6)	
Total financing receivables, net	293	444	
Commercial financing receivables, Held for investment | Current Assets			
Components of the company's financing receivables			
Total financing receivables, net	293	444	
Commercial financing receivables, Held for sale			
Components of the company's financing receivables			
Financing receivables, gross	939	793	
Amortized Cost	939	793	
Total financing receivables, net	939	793	
Commercial financing receivables, Held for sale | Current Assets			
Components of the company's financing receivables			
Total financing receivables, net	939	793	
Client Financing Receivables			
Components of the company's financing receivables			
Financing receivable and net investment in lease, amortized cost	12,531	12,397	
Financing receivable and net investment in lease, allowance for credit loss	$ (168)	$ (195)	$ (255)

Financing Receivables - Transfer of Financing Assets (Details) - USD ($) $ in Millions	12 Months Ended	
	Dec. 31, 2022	Dec. 31, 2021
Loans and Leases Receivable Disclosure [Line Items]		
Net investment in lease transferred	$ 15	$ 819
Financing receivable transferred net gain loss	(62)	
Loan receivables		
Loans and Leases Receivable Disclosure [Line Items]		
Financing receivables transferred	2	2,224
Client Financing Receivables		
Loans and Leases Receivable Disclosure [Line Items]		
Financing receivables and net investment in lease transferred	17	3,043
Commercial financing receivables		
Loans and Leases Receivable Disclosure [Line Items]		
Financing receivables transferred	9,029	7,359
Financing receivables transferred and uncollected	$ 1,561	$ 1,653

Financing Receivables - By Portfolio Segment (Details) $ in Millions	12 Months Ended	
	Dec. 31, 2022 USD ($) item	Dec. 31, 2021 USD ($) item
Financing receivables		
Number of classes of financing receivable | item	3	3
Amortized Cost	$ 13,769	$ 13,640
Allowance for credit losses:		
Allowance for credit losses, beginning balance	201	
Allowance for credit losses, ending balance	173	201
Client Financing Receivables		
Financing receivables		
Amortized Cost	12,531	12,397
Allowance for credit losses:		
Allowance for credit losses, beginning balance	195	255
Write-offs	(25)	(17)
Recoveries	5	1
Additions/(releases)	(3)	(38)
Other	(4)	(7)
Allowance for credit losses, ending balance	168	195
Client Financing Receivables | Americas		
Financing receivables		
Amortized Cost	7,281	6,573
Allowance for credit losses:		
Allowance for credit losses, beginning balance	111	141
Write-offs	(20)	(8)
Recoveries	1	0
Additions/(releases)	(5)	(19)
Other	2	(3)
Allowance for credit losses, ending balance	88	111
Client Financing Receivables | EMEA		
Financing receivables		
Amortized Cost	3,546	3,793
Allowance for credit losses:		
Allowance for credit losses, beginning balance	61	77
Write-offs	(3)	(2)
Recoveries	0	0
Additions/(releases)	6	(11)
Other	(5)	(3)
Allowance for credit losses, ending balance	60	61
Client Financing Receivables | Asia Pacific		
Financing receivables		
Amortized Cost	1,704	2,031

Allowance for credit losses:

Allowance for credit losses, beginning balance	23	37
Write-offs	(2)	(7)
Recoveries	4	1
Additions/(releases)	(4)	(7)
Other	(2)	0
Allowance for credit losses, ending balance	$ 20	$ 23

Financing Receivables - Past Due (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Past Due Financing Receivable		
Amortized Cost	$ 13,769	$ 13,640
Client Financing Receivables		
Past Due Financing Receivable		
Amortized Cost	12,531	12,397
Amortized Cost Not Accruing	137	205
Impaired financing receivables, related allowance	122	153
Client Financing Receivables | Total Past Due > 90 days		
Past Due Financing Receivable		
Amortized Cost	344	312
Amortized Cost > 90 Days and Accruing	208	112
Billed Invoices > 90 Days and Accruing	23	10
Client Financing Receivables | Americas		
Past Due Financing Receivable		
Amortized Cost	7,281	6,573
Amortized Cost Not Accruing	74	90
Client Financing Receivables | Americas | Total Past Due > 90 days		
Past Due Financing Receivable		
Amortized Cost	272	188
Amortized Cost > 90 Days and Accruing	198	100
Billed Invoices > 90 Days and Accruing	22	6
Client Financing Receivables | EMEA		
Past Due Financing Receivable		
Amortized Cost	3,546	3,793
Amortized Cost Not Accruing	46	95
Client Financing Receivables | EMEA | Total Past Due > 90 days		
Past Due Financing Receivable		
Amortized Cost	52	99
Amortized Cost > 90 Days and Accruing	8	7
Billed Invoices > 90 Days and Accruing	1	2
Client Financing Receivables | Asia Pacific		
Past Due Financing Receivable		
Amortized Cost	1,704	2,031
Amortized Cost Not Accruing	17	20
Client Financing Receivables | Asia Pacific | Total Past Due > 90 days		
Past Due Financing Receivable		
Amortized Cost	20	25
Amortized Cost > 90 Days and Accruing	3	5
Billed Invoices > 90 Days and Accruing	$ 1	$ 2

Financing Receivables - Credit Quality Year of Origination (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Amortized cost for each class of receivables, by credit quality indicator		
Total Amortized Cost	$ 13,769	$ 13,640
Americas | Aaa - Baa3		
Amortized cost for each class of receivables, by credit quality indicator		
Originated in Current Fiscal Year	3,316	2,556
Originated in Fiscal Year before Latest Fiscal Year	1,197	1,013
Originated Two Years before Latest Fiscal Year	559	544
Originated Three Years before Latest Fiscal Year	251	338
Originated Four Years before Latest Fiscal Year	128	108
Originated Five or More Years before Latest Fiscal Year	32	20
Total Amortized Cost	5,482	4,579
Americas | Ba1 - D		
Amortized cost for each class of receivables, by credit quality indicator		
Originated in Current Fiscal Year	1,097	1,147
Originated in Fiscal Year before Latest Fiscal Year	323	392
Originated Two Years before Latest Fiscal Year	217	236
Originated Three Years before Latest Fiscal Year	91	117
Originated Four Years before Latest Fiscal Year	26	50
Originated Five or More Years before Latest Fiscal Year	45	53
Total Amortized Cost	1,800	1,994
EMEA | Aaa - Baa3		
Amortized cost for each class of receivables, by credit quality indicator		
Originated in Current Fiscal Year	1,447	1,181
Originated in Fiscal Year before Latest Fiscal Year	451	506
Originated Two Years before Latest Fiscal Year	258	287
Originated Three Years before Latest Fiscal Year	161	189
Originated Four Years before Latest Fiscal Year	42	15
Originated Five or More Years before Latest Fiscal Year	14	21
Total Amortized Cost	2,373	2,198
EMEA | Ba1 - D		
Amortized cost for each class of receivables, by credit quality indicator		
Originated in Current Fiscal Year	704	778
Originated in Fiscal Year before Latest Fiscal Year	159	342
Originated Two Years before Latest Fiscal Year	158	291
Originated Three Years before Latest Fiscal Year	99	85
Originated Four Years before Latest Fiscal Year	16	52
Originated Five or More Years before Latest Fiscal Year	38	46
Total Amortized Cost	1,173	1,595
Asia Pacific | Aaa - Baa3		

Amortized cost for each class of receivables, by credit quality indicator		
Originated in Current Fiscal Year	799	565
Originated in Fiscal Year before Latest Fiscal Year	203	381
Originated Two Years before Latest Fiscal Year	210	297
Originated Three Years before Latest Fiscal Year	127	211
Originated Four Years before Latest Fiscal Year	84	74
Originated Five or More Years before Latest Fiscal Year	12	38
Total Amortized Cost	1,434	1,567
Asia Pacific | Ba1 - D		
Amortized cost for each class of receivables, by credit quality indicator		
Originated in Current Fiscal Year	96	226
Originated in Fiscal Year before Latest Fiscal Year	65	86
Originated Two Years before Latest Fiscal Year	49	51
Originated Three Years before Latest Fiscal Year	22	64
Originated Four Years before Latest Fiscal Year	21	17
Originated Five or More Years before Latest Fiscal Year	17	20
Total Amortized Cost	$ 269	$ 464

Property, Plant & Equipment (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
PROPERTY, PLANT AND EQUIPMENT		
Property, plant and equipment - gross	$ 18,695	$ 20,085
Less: Accumulated depreciation	13,361	14,390
Property, plant and equipment - net (Note M)	5,334	5,694
Land and land improvements		
PROPERTY, PLANT AND EQUIPMENT		
Property, plant and equipment - gross	213	224
Buildings and building and leasehold improvements		
PROPERTY, PLANT AND EQUIPMENT		
Property, plant and equipment - gross	5,678	6,049
Information technology equipment including rental machines		
PROPERTY, PLANT AND EQUIPMENT		
Property, plant and equipment - gross	9,643	10,589
Production, engineering, office and other equipment		
PROPERTY, PLANT AND EQUIPMENT		
Property, plant and equipment - gross	$ 3,161	$ 3,222

Leases - Components of Lease Costs (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Components of lease cost			
Finance lease cost	$ 67	$ 52	$ 35
Operating lease cost	1,050	1,126	1,181
Short-term lease cost	7	21	28
Variable lease cost	262	336	343
Sublease income	(72)	(46)	(28)
Total lease cost	1,315	1,489	1,558
Gains on sale and leaseback transactions, net	$ 41	$ 7	$ 0

Leases - Cash Flow From Lease Transactions (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash outflows from finance leases	$ 9	$ 8	$ 8
Financing cash outflows from finance leases	55	42	25
Operating cash outflows from operating leases	1,020	1,135	1,212
ROU assets obtained in exchange for new finance lease liabilities	196	46	50
ROU assets obtained in exchange for new operating lease liabilities	$ 705	$ 779	$ 785

Leases - Weighted-average Lease Terms and Discount Rates (Details)	Dec. 31, 2022	Dec. 31, 2021
Leases		
Weighted-average remaining lease term - finance leases	3 years 8 months 12 days	4 years 1 month 6 days
Weighted-average discount rate - finance leases	3.57%	0.88%
Weighted-average remaining lease term - operating leases	4 years 6 months	4 years 6 months
Weighted-average discount rate - operating leases	3.77%	3.01%

Leases - Maturity Analysis of Undiscounted Cash Out Flows (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Finance leases		
2023	$ 88	
2024	74	
2025	54	
2026	24	
2027	22	
Thereafter	19	
Imputed Interest	(43)	
Finance lease obligations	239	$ 99
Operating leases		
2023	960	
2024	788	
2025	555	
2026	430	
2027	285	
Thereafter	313	
Imputed Interest	(267)	
Operating lease liabilities	3,064	
Amount of leases not yet commenced	$ 691	

Leases - ROU Assets and Lease Liabilities (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Lessee, Lease, Description [Line Items]		
ROU assets	$ 223	$ 86
Finance Lease, Right-of-Use Asset, Statement of Financial Position [Extensible Enumeration]	Property, Plant and Equipment, Net	Property, Plant and Equipment, Net
Lease liabilities - short-term debt	$ 75	$ 36
Finance Lease, Liability, Current, Statement of Financial Position	Short-term debt (Note J&P)	Short-term debt (Note J&P)
Lease liabilities - long-term debt	$ 164	$ 63
Finance Lease, Liability, Noncurrent, Statement of Financial Position	Long-term debt (Note J&P)	Long-term debt (Note J&P)

Leases - Lease Amounts Included in Consolidated Income Statement (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Lease income - sales-type and direct financing leases			
Sales-type lease selling price	$ 1,636	$ 1,355	$ 1,321
Less: Carrying value of underlying assets	(385)	(300)	(410)
Gross profit	1,251	1,055	911
Interest income on lease receivables	200	179	249
Total sales-type and direct financing lease income	1,451	1,234	1,160
Lease income - operating leases	$ 116	$ 169	$ 255
Operating Lease, Lease Income, Statement of Income or Comprehensive Income [Extensible Enumeration]	Revenues	Revenues	Revenues
Variable lease income	$ 87	$ 120	$ 115
Total lease income	$ 1,653	$ 1,523	$ 1,530

Leases - Maturity Analysis of Lease Payments Due on Sales-type and Direct Financing Leases (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Leases		
Unguaranteed residual value of sales-type and direct financing leases	$ 422	$ 335
Maturity analysis of the lease payments due on sales-type and direct financing leases		
2023	1,692	
2024	1,173	
2025	738	
2026	330	
2027	87	
Thereafter	3	
Total undiscounted cash flows	4,023	
Present value of lease payments (recognized as financing receivables)	3,672	
Difference between undiscounted cash flows and discounted cash flows	$ 351	

Intangible Assets Including Goodwill - Intangible Assets by Class (Details) - USD ($) $ in Millions	12 Months Ended	
	Dec. 31, 2022	Dec. 31, 2021
Intangible asset balances by major asset class		
Gross Carrying Amount	$ 17,588	$ 19,031
Accumulated Amortization	(6,404)	(6,520)
Net Carrying Amount	11,184	12,511
Amount of foreign currency translation increase (decrease)	(198)	(221)
Capitalized software		
Intangible asset balances by major asset class		
Gross Carrying Amount	1,650	1,696
Accumulated Amortization	(705)	(751)
Net Carrying Amount	945	945
Client relationships		
Intangible asset balances by major asset class		
Gross Carrying Amount	8,559	9,021
Accumulated Amortization	(2,951)	(2,889)
Net Carrying Amount	5,608	6,132
Completed technology		
Intangible asset balances by major asset class		
Gross Carrying Amount	5,220	6,074
Accumulated Amortization	(2,045)	(2,259)
Net Carrying Amount	3,175	3,815
Patents/trademarks		
Intangible asset balances by major asset class		
Gross Carrying Amount	2,140	2,196
Accumulated Amortization	(688)	(586)
Net Carrying Amount	1,452	1,610
Other**		
Intangible asset balances by major asset class		
Gross Carrying Amount	19	44
Accumulated Amortization	(15)	(35)
Net Carrying Amount	$ 4	$ 9

Intangible Assets Including Goodwill - Intangible Assets Activity (Details) - USD ($) $ in Millions	6 Months Ended	12 Months Ended	
	Jun. 30, 2022	Dec. 31, 2022	Dec. 31, 2021
Intangible assets			
Intangible assets, increase (decrease)		$ (1,327)	
Impairment of intangible assets		0	$ 0
Intangible asset amortization expense		2,397	2,506
Retirement of fully amortized intangible assets		$ 1,301	$ 904
Divested businesses | Healthcare software assets divestiture			
Intangible assets			
Intangible assets, increase (decrease)	$ (1,313)		
Accumulated amortization, increase (decrease)	$ (1,149)		

Intangible Assets Including Goodwill - Future Amortization (Details) $ in Millions	Dec. 31, 2022 USD ($)
Future amortization expense, by year	
2023	$ 2,085
2024	1,881
2025	1,639
2026	1,512
2027	1,493
Thereafter	2,574
Capitalized software	
Future amortization expense, by year	
2023	514
2024	328
2025	103
2026	0
Acquired intangibles	
Future amortization expense, by year	
2023	1,571
2024	1,554
2025	1,535
2026	1,512
2027	1,493
Thereafter	$ 2,574

Intangible Assets Including Goodwill - Goodwill by Segment (Details) - USD ($) $ in Millions	12 Months Ended	
	Dec. 31, 2022	Dec. 31, 2021
Changes in Goodwill Balances		
Beginning Balance	$ 55,643	$ 53,765
Goodwill Additions	1,934	2,549
Purchase Price Adjustments	(159)	2
Divestitures	(485)	(50)
Foreign Currency Translation and Other Adjustments	(984)	(623)
Ending Balance	55,949	55,643
Goodwill impairment losses	0	0
Goodwill accumulated impairment losses	0	0
Divested businesses | Healthcare software assets divestiture		
Changes in Goodwill Balances		
Divestitures	(484)	
Other. | Divested businesses		
Changes in Goodwill Balances		
Beginning Balance	484	520
Divestitures	(484)	(37)
Foreign Currency Translation and Other Adjustments		1
Ending Balance		484
Business Segments | Software		
Changes in Goodwill Balances		
Beginning Balance	43,966	42,665
Goodwill Additions	568	1,836
Purchase Price Adjustments	(118)	23
Divestitures		(13)
Foreign Currency Translation and Other Adjustments	(760)	(545)
Ending Balance	43,657	43,966
Business Segments | Consulting		
Changes in Goodwill Balances		
Beginning Balance	6,797	6,145
Goodwill Additions	1,366	713
Purchase Price Adjustments	(42)	(21)
Foreign Currency Translation and Other Adjustments	(192)	(40)
Ending Balance	7,928	6,797
Business Segments | Infrastructure		
Changes in Goodwill Balances		
Beginning Balance	4,396	4,436
Purchase Price Adjustments		0
Divestitures	(1)	
Foreign Currency Translation and Other Adjustments	(32)	(39)
Ending Balance	$ 4,363	$ 4,396

Borrowings - Short-Term Debt (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Short-term debt disclosures		
Short-term loans	$ 8	$ 22
Long-term debt - current maturities	4,751	6,764
Total	$ 4,760	$ 6,787
Short-term loans		
Short-term debt disclosures		
Weighted-average interest rates for short-term debt (as a percent)	7.60%	6.70%

Borrowings - Long-Term Debt, Components (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Borrowings		
Long-term debt excluding finance lease obligations	$ 51,747	$ 52,240
Finance lease obligations	239	99
Long-term debt, gross	51,986	52,339
Less: net unamortized discount	835	839
Less: net unamortized debt issuance costs	138	130
Add: fair value adjustment	(73)	311
Total	50,940	51,681
Less: current maturities	4,751	6,764
Total long-term debt (excluding current portion)	$ 46,189	44,917
Finance lease obligations, interest rate (as a percent)	3.50%	
U.S. dollars		
Borrowings		
Long-term debt, gross	$ 33,605	34,290
Maturing 2022 | U.S. dollars		
Borrowings		
Long-term debt, gross		5,673
Debt instrument, weighted-average interest rate (as a percent)	2.60%	
Maturing 2022 | Pound sterling		
Borrowings		
Long-term debt excluding finance lease obligations		406
Maturing 2023 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 1,529	1,573
Debt instrument, weighted-average interest rate (as a percent)	3.40%	
Maturing 2024 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 5,009	5,016
Debt instrument, weighted-average interest rate (as a percent)	3.30%	
Maturing 2025 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 1,603	608
Debt instrument, weighted-average interest rate (as a percent)	5.10%	
Maturing 2026 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 4,351	4,356
Debt instrument, weighted-average interest rate (as a percent)	3.30%	
Maturing 2027 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 3,620	2,221

Debt instrument, weighted-average interest rate (as a percent)	3.10%	
Maturing 2028 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 313	313
Debt instrument, weighted-average interest rate (as a percent)	6.50%	
Maturing 2029 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 3,250	3,250
Debt instrument, weighted-average interest rate (as a percent)	3.50%	
Maturing 2030 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 1,350	1,350
Debt instrument, weighted-average interest rate (as a percent)	2.00%	
Maturing 2032 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 1,850	600
Debt instrument, weighted-average interest rate (as a percent)	4.40%	
Maturing 2038 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 83	83
Debt instrument, weighted-average interest rate (as a percent)	8.00%	
Maturing 2039 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 2,745	2,745
Debt instrument, weighted-average interest rate (as a percent)	4.50%	
Maturing 2040 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 650	650
Debt instrument, weighted-average interest rate (as a percent)	2.90%	
Maturing 2042 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 1,107	1,107
Debt instrument, weighted-average interest rate (as a percent)	4.00%	
Maturing 2045 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 27	27
Debt instrument, weighted-average interest rate (as a percent)	7.00%	
Maturing 2046 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 650	650
Debt instrument, weighted-average interest rate (as a percent)	4.70%	
Maturing 2049 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 3,000	3,000

Debt instrument, weighted-average interest rate (as a percent)	4.30%	
Maturing 2050 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 750	750
Debt instrument, weighted-average interest rate (as a percent)	3.00%	
Maturing 2052 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 1,400	
Debt instrument, weighted-average interest rate (as a percent)	4.20%	
Maturing 2096 | U.S. dollars		
Borrowings		
Long-term debt, gross	$ 316	316
Debt instrument, weighted-average interest rate (as a percent)	7.10%	
Maturing 2023-2040 | Euro		
Borrowings		
Long-term debt excluding finance lease obligations	$ 17,087	15,903
Debt instrument, weighted-average interest rate (as a percent)	1.10%	
Maturing 2024-2026 | Japanese yen		
Borrowings		
Long-term debt excluding finance lease obligations	$ 694	1,263
Debt instrument, weighted-average interest rate (as a percent)	0.30%	
Maturing 2023-2026 | Other currencies		
Borrowings		
Long-term debt excluding finance lease obligations	$ 361	$ 378
Debt instrument, weighted-average interest rate (as a percent)	16.00%	

Borrowings - Long-Term Debt, Covenants (Details) $ in Millions	12 Months Ended Dec. 31, 2022 USD ($)
Borrowings	
Limit based on net tangible assets	10.00%
Credit Facilities	
Borrowings	
Minimum net interest expense ratio	2.20
Default provision on credit facility	$ 500

Borrowings - Long-Term Debt, Debt Issued (Details) - USD ($) $ in Millions	3 Months Ended		
	Sep. 30, 2022	Mar. 31, 2022	Mar. 31, 2021
U.S dollar. fixed-rate notes			
Notes Issued			
Aggregate amount of debt issued	$ 3,250	$ 1,800	
U.S dollar. fixed-rate notes | Minimum			
Notes Issued			
Credit facility term	3 years	5 years	
Coupon rate (as a percent)	4.00%	2.20%	
U.S dollar. fixed-rate notes | Maximum			
Notes Issued			
Credit facility term	30 years	30 years	
Coupon rate (as a percent)	4.90%	3.43%	
Euro fixed-rate notes			
Notes Issued			
Aggregate amount of debt issued		$ 2,300	
Euro fixed-rate notes | Minimum			
Notes Issued			
Credit facility term		8 years	
Coupon rate (as a percent)		0.875%	
Euro fixed-rate notes | Maximum			
Notes Issued			
Credit facility term		12 years	
Coupon rate (as a percent)		1.25%	
IBM Credit LLC | Fixed rate debt due in 2021 to 2023			
Notes Issued			
Outstanding debt redeemed			$ 1,750
Aggregate principal redeemed (as a percent)			100.00%
Loss upon redemption on notes			$ (22)

Borrowings - Post-Swap Borrowing (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Borrowings		
Fixed-rate debt, Amount	$ 43,898	$ 49,976
Floating-rate debt, Amount	7,042	1,705
Total	$ 50,940	$ 51,681
Fixed-rate debt, Weighted-average Interest Rate (as a percent)	2.70%	2.80%
Floating-rate debt, Weighted-average Interest Rate (as a percent)	5.90%	2.60%
Interest rate swaps		
Borrowings		
Notional amount	$ 6,525	$ 425

Borrowings - Pre-Swap Obligations (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Pre-swap annual contractual obligations of long-term debt outstanding		
2023	$ 4,754	
2024	6,367	
2025	4,875	
2026	4,700	
2027	4,705	
Thereafter	26,585	
Total	$ 51,986	$ 52,339

Borrowings - Interest on Debt (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Interest on Debt			
Interest capitalized	$ 5	$ 3	$ 5
Total interest paid and accrued	1,566	1,550	1,743
Cost of financing			
Interest on Debt			
Interest paid and accrued	346	392	451
Interest expense.			
Interest on Debt			
Interest paid and accrued	$ 1,216	$ 1,155	$ 1,288

Borrowings - Lines of Credit (Details) - USD ($) $ in Millions		12 Months Ended		
	Jun. 30, 2022	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Five-Year Credit Agreement				
Lines of Credit				
Amount of credit facility	$ 7,500			
Credit facility term	5 years			
Three-Year Credit Agreement				
Lines of Credit				
Amount of credit facility	$ 2,500			
Credit facility term	3 years			
Credit Facilities				
Lines of Credit				
Amount of credit facility		$ 10,000		
Expenses related to credit facility		11	$ 12	$ 12
Borrowings outstanding		$ 0		

Other Liabilities - Components (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Other Liabilities		
Income tax reserves	$ 6,404	$ 6,179
Excess 401(k) Plus Plan	1,307	1,686
Disability benefits	303	359
Derivative liabilities	488	103
Workforce reductions	524	752
Deferred taxes	2,292	3,956
Other taxes payable	90	72
Environmental accruals	243	224
Warranty accruals	36	29
Asset retirement obligations	82	92
Acquisition related	152	218
Divestiture related	49	47
Other	273	278
Total	$ 12,243	$ 13,996

Other Liabilities - Workforce Reduction and Environmental Liabilities (Details) - USD ($) $ in Millions	3 Months Ended Dec. 31, 2020	Dec. 31, 2022	Dec. 31, 2021
Other Liabilities			
Total amounts accrued for workforce reductions		$ 701	$ 1,359
Charge for structural actions	$ 1,472		
Total amounts accrued for non-ARO environmental liabilities		$ 271	$ 248
Amounts accrued for non-ARO environmental liabilities, Balance Sheet location		Other accrued expenses and liabilities	Other accrued expenses and liabilities
Total amounts accrued for ARO liabilities		$ 107	$ 119

Commitments & Contingencies - Extensions of Credit (Details) - USD ($) $ in Billions	Dec. 31, 2022	Dec. 31, 2021
Extended lines of credit		
Commitments, guarantees:		
Unused amounts in lines of credit to third-party entities and commitments for future financing to clients	$ 1.6	$ 1.7
Financing for client purchase agreements		
Commitments, guarantees:		
Unused amounts in lines of credit to third-party entities and commitments for future financing to clients	$ 2.1	$ 3.2

Commitments & Contingencies - Standard Warranty Liability (Details) - USD ($) $ in Millions	12 Months Ended	
	Dec. 31, 2022	Dec. 31, 2021
Movement in standard warranty liability		
Beginning Balance	$ 77	$ 83
Current period accruals	84	82
Accrual adjustments to reflect experience	(2)	(1)
Charges incurred	(81)	(86)
Ending Balance	$ 79	$ 77

Commitments & Contingencies - Extended Warranty Liability (Details) - USD ($) $ in Millions	12 Months Ended	
	Dec. 31, 2022	Dec. 31, 2021
Movement in deferred income		
Amortization of deferred revenue	$ (10,200)	
Current portion	12,032	$ 12,518
Noncurrent portion	3,499	3,577
Extended Warranty		
Movement in deferred income		
Beginning Balance	350	425
Revenue deferred for new extended warranty contracts	100	133
Amortization of deferred revenue	(163)	(198)
Other	(15)	(10)
Ending Balance	272	350
Current portion	137	163
Noncurrent portion	$ 135	$ 186

Commitments & Contingencies - Contingencies (Details) $ in Millions				1 Months Ended		12 Months Ended
	May 30, 2022 USD ($)	Apr. 05, 2022 defendant	Jun. 08, 2021 USD ($)	Apr. 30, 2022 USD ($)	Feb. 28, 2021 USD ($)	Dec. 31, 2022 USD ($) claim country
CISGIL v. IBM UK						
Loss Contingencies						
Amount of award against IBM					$ 20	
Additional damages sought, value				$ 89		
BMC v. IBM						
Loss Contingencies						
Direct damages awarded and appealed, value	$ 718					
Punitive damages awarded and appealed, value	$ 718					
Putative Securities Class Action						
Loss Contingencies						
Claims asserted by the company after investigation | claim						0
Number of current executives named as defendants | defendant		2				
Number of former executives named as defendants | defendant		2				
Brazil Tax Matters						
Loss Contingencies						
Damages sought, value						$ 400
Minimum						
Loss Contingencies						
Clients' presence in number of countries | country						175
Minimum | IBM v. GF						
Loss Contingencies						
Damages sought, value			$ 1,500			

Equity Activity - Stock Repurchases and Other Transactions (Details) - USD ($) $ / shares in Units, $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Equity Activity			
Common stock, Shares authorized (in shares)	4,687,500,000	4,687,500,000	
Common stock, Par value (in dollars per share)	$ 0.20	$ 0.20	
Common stock, outstanding (in shares)	906,091,977		
Preferred stock, shares authorized (in shares)	150,000,000		
Preferred stock, par value (in dollars per share)	$ 0.01		
Common stock repurchase authorization available, value	$ 2,008		
Common stock issued under employee plans (in shares)	8,539,072	5,608,845	4,972,028
Issue of treasury shares as a result of RSU releases and stock option exercises (in shares)	2,512,300	2,093,243	2,934,907
Common stock remitted by employees in order to satisfy tax withholding requirements (in shares)	3,027,994	2,286,912	2,363,966
Value of common shares remitted by employees in order to satisfy tax withholding requirements	$ 407	$ 319	$ 302
Series A Preferred Stock			
Equity Activity			
Preferred stock, shares authorized (in shares)	75,000,000		
Preferred stock, shares issued (in shares)	57,916,244		
Preferred stock, shares outstanding (in shares)	0		

Equity Activity - Reclassifications and Taxes (Details) - USD ($) $ in Millions	3 Months Ended	12 Months Ended		
	Sep. 30, 2022	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Reclassifications and Taxes Related to Items of Other Comprehensive Income				
Cost		$ 27,842	$ 25,865	$ 24,314
SG&A expense		18,609	18,745	20,561
Other (income) and expense (Note A)		5,803	873	802
Interest expense		1,216	1,155	1,288
Provision for/(benefit from) income taxes (Note H)		(626)	124	(1,360)
Net (income) loss		(1,639)	(5,743)	(5,590)
Other comprehensive income/(loss)		6,494	4,839	(740)
Pre-tax pension settlement charge	$ 5,900	5,894		
Pension settlement charge, net of tax	$ 4,400	4,400		
Services				
Reclassifications and Taxes Related to Items of Other Comprehensive Income				
Cost		21,062	19,147	17,689
Sales				
Reclassifications and Taxes Related to Items of Other Comprehensive Income				
Cost		6,374	6,184	6,048
Financing.				
Reclassifications and Taxes Related to Items of Other Comprehensive Income				
Cost		406	534	577
Cost of services				
Reclassifications and Taxes Related to Items of Other Comprehensive Income				
Cost		21,062	19,147	17,689
Cost of sales				
Reclassifications and Taxes Related to Items of Other Comprehensive Income				
Cost		6,374	6,184	6,048
Cost of financing				
Reclassifications and Taxes Related to Items of Other Comprehensive Income				
Cost		406	534	577
Accumulated Other Comprehensive Income/(Loss)				
Reclassifications and Taxes Related to Items of Other Comprehensive Income				
Unrealized gains/(losses) arising during the period, Net of Tax Amount		1,007	2,608	(2,638)

Reclassification/amortization, Net of Tax Amount	5,487	2,231	1,898
Other comprehensive income/(loss), Before Tax Amount	8,936	6,542	(1,206)
Other comprehensive income/(loss), Tax (Expense)/Benefit	(2,442)	(1,703)	466
Other comprehensive income/(loss)	6,494	4,839	(740)
Pre-tax pension settlement charge	5,900		
Pension settlement charge, net of tax	4,400		
Foreign Currency Translation Adjustments			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Unrealized gains/(losses) arising during the period, Net of Tax Amount	(229)	573	(965)
Other comprehensive income/(loss), Before Tax Amount	176	987	(1,500)
Other comprehensive income/(loss), Tax (Expense)/Benefit	(406)	(414)	535
Other comprehensive income/(loss)	(229)	573	(965)
Net Unrealized Gains/(Losses) on Available-For-Sale Securities			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Unrealized gains/(losses) arising during the period, Before Tax Amount	(1)	0	(1)
Unrealized gains/(losses) arising during the period, Tax (Expense)/ Benefit	0	0	0
Unrealized gains/(losses) arising during the period, Net of Tax Amount	(1)	0	0
Other comprehensive income/(loss), Before Tax Amount	(1)	0	(1)
Other comprehensive income/(loss), Tax (Expense)/Benefit	0	0	0
Other comprehensive income/(loss)	(1)	0	0
Net Unrealized Gains/(Losses) on Cash Flow Hedges			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Unrealized gains/(losses) arising during the period, Before Tax Amount	241	344	(349)
Unrealized gains/(losses) arising during the period, Tax (Expense)/ Benefit	(64)	(89)	89
Unrealized gains/(losses) arising during the period, Net of Tax Amount	178	256	(261)
Reclassification/amortization, Net of Tax Amount	(295)	183	(16)
Other comprehensive income/(loss), Before Tax Amount	(158)	587	(370)
Other comprehensive income/(loss), Tax (Expense)/Benefit	41	(149)	94
Other comprehensive income/(loss)	(117)	438	(277)
Net Unrealized Gains/(Losses) on Cash Flow Hedges | Reclassifications			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
SG&A expense	(38)	24	0
Other (income) and expense (Note A)	(349)	157	(101)

Interest expense	86	65	78
Net Unrealized Gains/(Losses) on Cash Flow Hedges | Reclassifications | Services			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Cost	(24)	(43)	(23)
Net Unrealized Gains/(Losses) on Cash Flow Hedges | Reclassifications | Sales			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Cost	(99)	16	(2)
Net Unrealized Gains/(Losses) on Cash Flow Hedges | Reclassifications | Financing.			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Cost	24	22	27
Net Unrealized Gains/(Losses) on Cash Flow Hedges | Reclassifications | Cost of services			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Provision for/(benefit from) income taxes (Note H)	6	11	6
Net (income) loss	(18)	(32)	(18)
Net Unrealized Gains/(Losses) on Cash Flow Hedges | Reclassifications | Cost of sales			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Provision for/(benefit from) income taxes (Note H)	28	(3)	1
Net (income) loss	(70)	13	(2)
Net Unrealized Gains/(Losses) on Cash Flow Hedges | Reclassifications | Cost of financing			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Provision for/(benefit from) income taxes (Note H)	(6)	(6)	(7)
Net (income) loss	18	17	20
Net Unrealized Gains/(Losses) on Cash Flow Hedges | Reclassifications | SG&A expense			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Provision for/(benefit from) income taxes (Note H)	11	(6)	0
Net (income) loss	(28)	19	0
Net Unrealized Gains/(Losses) on Cash Flow Hedges | Reclassifications | Other (income) and expenses			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Provision for/(benefit from) income taxes (Note H)	88	(40)	25
Net (income) loss	(261)	118	(75)

Net Unrealized Gains/(Losses) on Cash Flow Hedges | Reclassifications | Interest expense.			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Provision for/(benefit from) income taxes (Note H)	(22)	(16)	(20)
Net (income) loss	64	49	58
Net Change Retirement-Related Benefit Plans			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Unrealized gains/(losses) arising during the period, Net of Tax Amount	1,059	1,780	(1,412)
Reclassification/amortization, Net of Tax Amount	5,782	2,049	1,914
Other comprehensive income/(loss), Before Tax Amount	8,919	4,969	664
Other comprehensive income/(loss), Tax (Expense)/Benefit	(2,078)	(1,140)	(163)
Other comprehensive income/(loss)	6,841	3,828	501
Retirement-Related Benefit Plans, Prior Service Costs/(Credits)			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Unrealized gains/(losses) arising during the period, Before Tax Amount	463	(51)	(37)
Unrealized gains/(losses) arising during the period, Tax (Expense)/ Benefit	(99)	(1)	7
Unrealized gains/(losses) arising during the period, Net of Tax Amount	364	(52)	(29)
Reclassification/amortization, Before Tax Amount	12	9	13
Reclassification/amortization, Tax (Expense)/Benefit	(3)	0	(1)
Reclassification/amortization, Net of Tax Amount	9	9	12
Retirement-Related Benefit Plans, Net Gains/(Losses)			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Unrealized gains/(losses) arising during the period, Before Tax Amount	878	2,433	(1,678)
Unrealized gains/(losses) arising during the period, Tax (Expense)/ Benefit	(183)	(601)	295
Unrealized gains/(losses) arising during the period, Net of Tax Amount	695	1,832	(1,383)
Reclassification/amortization, Before Tax Amount	1,596	2,484	2,314
Reclassification/amortization, Tax (Expense)/Benefit	(304)	(528)	(451)
Reclassification/amortization, Net of Tax Amount	1,293	1,956	1,863
Retirement-Related Benefit Plans, Curtailments and Settlements			
Reclassifications and Taxes Related to Items of Other Comprehensive Income			
Unrealized gains/(losses) arising during the period, Before Tax Amount	5,970	94	52
Unrealized gains/(losses) arising during the period, Tax (Expense)/ Benefit	(1,490)	(11)	(14)

Unrealized gains/(losses) arising during the period, Net of Tax Amount	$ 4,480	$ 83	$ 38

Equity Activity - AOCI Rollforward (Details) - USD ($) $ in Millions	3 Months Ended	12 Months Ended		
	Sep. 30, 2022	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Accumulated Other Comprehensive Income (Loss) (net of tax)				
Balance at the Beginning of the Period		$ 18,996	$ 20,727	$ 20,985
Separation of Kyndryl			(7,203)	
Other comprehensive income/(loss)		6,494	4,839	(740)
Balance at the End of the Period		22,021	18,996	20,727
Pre-tax pension settlement charge	$ 5,900	5,894		
Pension settlement charge, net of tax	$ 4,400	4,400		
Accumulated Other Comprehensive Income/(Loss)				
Accumulated Other Comprehensive Income (Loss) (net of tax)				
Balance at the Beginning of the Period		(23,234)	(29,337)	(28,597)
Other comprehensive income before reclassifications		1,007	2,608	(2,638)
Amount reclassified from accumulated other comprehensive income		5,487	2,231	1,898
Separation of Kyndryl			1,264	
Other comprehensive income/(loss)			6,103	
Other comprehensive income/(loss)		6,494	4,839	(740)
Balance at the End of the Period		(16,740)	(23,234)	(29,337)
Pre-tax pension settlement charge		5,900		
Pension settlement charge, net of tax		4,400		
Net Unrealized Gains/(Losses) on Cash Flow Hedges				
Accumulated Other Comprehensive Income (Loss) (net of tax)				
Balance at the Beginning of the Period		(18)	(456)	(179)
Other comprehensive income before reclassifications		178	256	(261)
Amount reclassified from accumulated other comprehensive income		(295)	183	(16)
Other comprehensive income/(loss)			438	
Other comprehensive income/(loss)		(117)	438	(277)
Balance at the End of the Period		(135)	(18)	(456)
Foreign Currency Translation Adjustments				
Accumulated Other Comprehensive Income (Loss) (net of tax)				
Balance at the Beginning of the Period		(3,362)	(4,665)	(3,700)
Other comprehensive income before reclassifications		(229)	573	(965)
Separation of Kyndryl			730	
Other comprehensive income/(loss)			1,303	
Other comprehensive income/(loss)		(229)	573	(965)
Balance at the End of the Period		(3,591)	(3,362)	(4,665)

Net Change Retirement-Related Benefit Plans			
Accumulated Other Comprehensive Income (Loss) (net of tax)			
Balance at the Beginning of the Period	(19,854)	(24,216)	(24,718)
Other comprehensive income before reclassifications	1,059	1,780	(1,412)
Amount reclassified from accumulated other comprehensive income	5,782	2,049	1,914
Separation of Kyndryl		534	
Other comprehensive income/(loss)		4,362	
Other comprehensive income/(loss)	6,841	3,828	501
Balance at the End of the Period	(13,013)	(19,854)	(24,216)
Net Unrealized Gains/(Losses) on Available-For-Sale Securities			
Accumulated Other Comprehensive Income (Loss) (net of tax)			
Balance at the Beginning of the Period	(1)	0	0
Other comprehensive income before reclassifications	(1)	0	0
Other comprehensive income/(loss)		0	
Other comprehensive income/(loss)	(1)	0	0
Balance at the End of the Period	$ (1)	$ (1)	$ 0

Derivative Financial Instruments - Offsetting (Details) - USD ($) $ / shares in Units, shares in Millions, $ in Millions				12 Months Ended		
	Nov. 02, 2022	May 23, 2022	May 19, 2022	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Derivative Financial Instruments						
Potential reduction in net position of total derivative assets				$ 220	$ 60	
Potential reduction in net position of total derivative liabilities				220	60	
Cash collateral rehypothecated				8	2	
Unrealized gain (loss)				(225)	(205)	$ 101
Strike price		$ 13.95				
Other (income) and expense						
Derivative Financial Instruments						
Realized gain (loss)				(83)		
Kyndryl Holdings, Inc						
Derivative Financial Instruments						
Numbers shares transferred			22.3			
Cash-settled swap						
Derivative Financial Instruments						
Realized gain (loss)	$ (83)					
Settlement of the swap	$ 83					
Strike price	$ 13.95					
Other receivables						
Derivative Financial Instruments						
Right to reclaim cash collateral				140	2	
Accounts payable						
Derivative Financial Instruments						
Obligation to return cash collateral				$ 8	$ 38	

Derivative Financial Instruments - Hedging Programs (Details) - USD ($) $ in Millions	12 Months Ended Dec. 31, 2022	Dec. 31, 2021	May 19, 2022
Instruments in net investment hedges			
Derivative Financial Instruments			
Notional amount	$ 4,700	$ 6,800	
Average remaining maturity	1 month 6 days	1 month 6 days	
Interest rate swaps			
Derivative Financial Instruments			
Notional amount	$ 6,525	$ 425	
Interest rate swaps | Derivative instruments in fair value hedges			
Derivative Financial Instruments			
Notional amount	$ 6,500	$ 400	
Average remaining maturity	6 years	1 year 2 months 12 days	
Interest rate swaps | Derivative instruments in cash flow hedges			
Derivative Financial Instruments			
Notional amount	$ 0	$ 0	
Foreign exchange contracts | Not designated as hedging instruments - economic hedges			
Derivative Financial Instruments			
Notional amount	$ 5,900	6,800	
Foreign exchange contracts | Not designated as hedging instruments - economic hedges | Maximum			
Derivative Financial Instruments			
Term of contract	1 year		
Foreign exchange contracts | Instruments in net investment hedges			
Derivative Financial Instruments			
Notional amount	$ 13,400	14,100	
Foreign exchange forward contracts | Derivative instruments in cash flow hedges			
Derivative Financial Instruments			
Maximum length of time hedged	2 years		
Notional amount	$ 8,100	$ 7,200	
Average remaining maturity	7 months 6 days	7 months 6 days	
Net gains (losses) before taxes in accumulated other comprehensive income/(loss), cash flow hedges	$ 66	$ 315	
Gains (losses) expected to be reclassified to net income within the next 12 months	$ 7		
Cross-currency swaps | Derivative instruments in cash flow hedges			

Derivative Financial Instruments			
Maximum length of time hedged	5 years		
Notional amount	$ 3,100	2,000	
Net gains (losses) before taxes in accumulated other comprehensive income/(loss), cash flow hedges	(101)	$ (174)	
Gains (losses) expected to be reclassified to net income within the next 12 months	$ 10		
Forward-starting interest rate swaps | Derivative instruments in cash flow hedges			
Derivative Financial Instruments			
Number of derivative instruments outstanding	0	0	
Net gains (losses) before taxes in accumulated other comprehensive income/(loss), cash flow hedges	$ (139)	$ (157)	
Gains (losses) expected to be reclassified to net income within the next 12 months	(18)		
Cash-settled swap			
Derivative Financial Instruments			
Notional amount			$ 311
Equity contracts hedging employee compensation obligations | Not designated as hedging instruments - economic hedges			
Derivative Financial Instruments			
Notional amount	$ 1,100	$ 1,400	

Derivative Financial Instruments - Cumulative Basis Adjustments for Fair Value Hedges (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Short-term debt		
Amounts recorded in the Consolidated Balance Sheet related to cumulative basis adjustments for fair value hedges		
Carrying amount of the hedged item	$ (199)	$ (227)
Cumulative hedging adjustments included in the carrying amount-assets/(liabilities)	1	(2)
Long-term debt		
Amounts recorded in the Consolidated Balance Sheet related to cumulative basis adjustments for fair value hedges		
Carrying amount of the hedged item	(6,216)	(508)
Cumulative hedging adjustments included in the carrying amount-assets/(liabilities)	72	(309)
Hedging adjustments on discontinued hedging relationships	$ (250)	$ (302)

Derivative Financial Instruments - Effect of Hedge Activity on Income and Expense (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Derivative Instruments, Gain (Loss)			
Cost	$ 27,842	$ 25,865	$ 24,314
SG&A expense	18,609	18,745	20,561
Other (income) and expense (Note A)	5,803	873	802
Interest expense	1,216	1,155	1,288
Cost of services			
Derivative Instruments, Gain (Loss)			
Cost	21,062	19,147	17,689
Gains/(losses) of total hedge activity	24	43	23
Cost of sales			
Derivative Instruments, Gain (Loss)			
Cost	6,374	6,184	6,048
Gains/(losses) of total hedge activity	99	(16)	2
Cost of financing			
Derivative Instruments, Gain (Loss)			
Cost	406	534	577
Gains/(losses) of total hedge activity	2	1	12
SG&A expense			
Derivative Instruments, Gain (Loss)			
Gains/(losses) of total hedge activity	(211)	176	141
Other (income) and expenses			
Derivative Instruments, Gain (Loss)			
Gains/(losses) of total hedge activity	(225)	(205)	101
Interest expense.			
Derivative Instruments, Gain (Loss)			
Gains/(losses) of total hedge activity	$ 6	$ 3	$ 35

Derivative Financial Instruments - Gains and Losses (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Derivative Instruments, Gain (Loss)			
Gain (loss) recognized in earnings on derivatives	$ (1,153)	$ 150	$ 220
Derivative, Gain (Loss), Statement of Income or Comprehensive Income [Extensible Enumeration]	Cost, Interest expense (Note P&T), Selling, general and administrative, Other (income) and expense (Note A)	Cost, Interest expense (Note P&T), Selling, general and administrative, Other (income) and expense (Note A)	Cost, Interest expense (Note P&T), Selling, general and administrative, Other (income) and expense (Note A)
Gain (loss) recognized in earnings attributable to risk being hedged	$ 384	$ 71	$ 14
Cash flow hedges and net investment hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Recognized in OCI	1,854	1,989	(2,477)
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Reclassified from AOCI	400	(243)	21
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Amounts Excluded from Effectiveness Testing	64	23	60
Foreign exchange contracts | Derivative instruments in cash flow hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Recognized in OCI	241	344	(349)
Foreign exchange contracts | Instruments in net investment hedges			

Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Recognized in OCI	1,613	1,644	(2,127)
Foreign exchange contracts | Not designated as hedging instruments - economic hedges			
Derivative Instruments, Gain (Loss)			
Gain (loss) recognized in earnings on derivatives	$ (492)	$ (48)	$ 1
Derivative, Gain (Loss), Statement of Income or Comprehensive Income [Extensible Enumeration]	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Equity contracts | Not designated as hedging instruments - economic hedges			
Derivative Instruments, Gain (Loss)			
Gain (loss) recognized in earnings on derivatives		$ 201	$ 142
Derivative, Gain (Loss), Statement of Income or Comprehensive Income [Extensible Enumeration]		Selling, general and administrative	Selling, general and administrative
Cost of services | Foreign exchange contracts | Derivative instruments in cash flow hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Reclassified from AOCI	$ 24	$ 43	$ 23
Cost of sales | Foreign exchange contracts | Derivative instruments in cash flow hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other	99	(16)	2

Comprehensive Income - Reclassified from AOCI			
Cost of financing | Interest rate contracts | Derivative instruments in fair value hedges			
Derivative Instruments, Gain (Loss)			
Gain (loss) recognized in earnings on derivatives	(73)	(1)	20
Gain (loss) recognized in earnings attributable to risk being hedged	85	18	4
Cost of financing | Interest rate contracts | Derivative instruments in cash flow hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Reclassified from AOCI	(4)	(4)	(5)
Cost of financing | Foreign exchange contracts | Derivative instruments in cash flow hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Reclassified from AOCI	(21)	(18)	(23)
Cost of financing | Foreign exchange contracts | Instruments in net investment hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Amounts Excluded from Effectiveness Testing	14	6	16
SG&A expense | Foreign exchange contracts |			

Derivative instruments in cash flow hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Reclassified from AOCI	38	(24)	0
SG&A expense | Equity contracts | Not designated as hedging instruments - economic hedges			
Derivative Instruments, Gain (Loss)			
Gain (loss) recognized in earnings on derivatives	(249)		
Other (income) and expenses | Foreign exchange contracts | Derivative instruments in cash flow hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Reclassified from AOCI	349	(157)	101
Other (income) and expenses | Equity contracts | Not designated as hedging instruments - economic hedges			
Derivative Instruments, Gain (Loss)			
Gain (loss) recognized in earnings on derivatives	(83)		
Interest expense. | Interest rate contracts | Derivative instruments in fair value hedges			
Derivative Instruments, Gain (Loss)			
Gain (loss) recognized in earnings on derivatives	(257)	(2)	58
Gain (loss) recognized in earnings attributable to risk being hedged	299	53	11
Interest expense. | Interest rate contracts | Derivative			

instruments in cash flow hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Reclassified from AOCI	(14)	(13)	(13)
Interest expense. | Foreign exchange contracts | Derivative instruments in cash flow hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Reclassified from AOCI	(72)	(52)	(65)
Interest expense. | Foreign exchange contracts | Instruments in net investment hedges			
Derivative Instruments, Gain (Loss)			
Gain (Loss) Recognized in Earnings and Other Comprehensive Income - Amounts Excluded from Effectiveness Testing	$ 50	$ 17	$ 45

Stock-Based Compensation (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Stock-based compensation cost, allocation of recognized costs			
Pre-tax stock-based compensation cost	$ 987	$ 919	$ 873
Income tax benefits	(249)	(223)	(198)
Net stock-based compensation cost	738	695	675
Unrecognized compensation cost related to non-vested awards	$ 1,500		
Unrecognized compensation cost related to non-vested awards, weighted average period of recognition	2 years 7 months 6 days		
Employee Stock Purchase Plan			
Stock-based compensation cost, allocation of recognized costs			
Pre-tax stock-based compensation cost	$ 43		
Cost			
Stock-based compensation cost, allocation of recognized costs			
Pre-tax stock-based compensation cost	164	145	126
SG&A expense			
Stock-based compensation cost, allocation of recognized costs			
Pre-tax stock-based compensation cost	566	555	550
RD&E expense			
Stock-based compensation cost, allocation of recognized costs			
Pre-tax stock-based compensation cost	$ 258	$ 218	$ 197

Stock-Based Compensation - Incentive Awards (Details) - Stock-based compensation plans shares in Millions	12 Months Ended Dec. 31, 2022 shares
Stock-Based Compensation	
Shares authorized under existing stock based compensation plans (in shares)	293
Additional shares considered authorized under previous stock based compensation plans (in shares)	66
Unused shares available to be granted (in shares)	65

Stock-Based Compensation - RSU and PSU Activity (Details) - $ / shares	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Restricted Stock Units			
Weighted Average Grant Price			
Beginning balance (in dollars per share)	$ 116	$ 117	$ 123
Granted (in dollars per share)	112	125	115
Released (in dollars per share)	114	120	126
Canceled/forfeited/performance adjusted (in dollars per share)	116	119	121
Kyndryl separation - cancellation (in dollars per share)		119	
Ending balance (in dollars per share)	$ 115	$ 116	$ 117
Number of Units			
Beginning balance (in shares)	19,038,480	16,896,704	11,326,628
Granted (in shares)	11,447,966	9,566,307	10,651,955
Released (in shares)	(7,013,530)	(4,582,159)	(3,781,240)
Canceled/forfeited/performance adjusted (in shares)	(2,420,002)	(2,072,800)	(1,300,639)
Kyndryl separation - adjustment (in shares)		660,089	
Kyndryl separation - cancellation (in shares)		(1,429,661)	
Ending balance (in shares)	21,052,914	19,038,480	16,896,704
Performance Share Units			
Weighted Average Grant Price			
Beginning balance (in dollars per share)	$ 118	$ 120	$ 126
Granted (in dollars per share)	110	129	117
Released (in dollars per share)	114	129	137
Canceled/forfeited/performance adjusted (in dollars per share)	116	124	125
Kyndryl separation - cancellation (in dollars per share)		119	
Ending balance (in dollars per share)	$ 117	$ 118	$ 120
Number of Units			
Beginning balance (in shares)	3,728,857	3,551,500	2,856,450
Granted (in shares)	1,237,019	1,561,120	1,582,666
Performance adjustments (in shares)	(362,247)	(223,397)	(70,089)
Released (in shares)	(679,601)	(581,397)	(630,974)
Canceled/forfeited/performance adjusted (in shares)	(720,197)	(453,178)	(256,642)
Kyndryl separation - adjustment (in shares)		120,428	
Kyndryl separation - cancellation (in shares)		(469,616)	
Ending balance (in shares)	3,566,078	3,728,857	3,551,500

Stock-Based Compensation - RSUs and PSUs, Other Disclosures (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
RSUs and PSUs			
Stock-Based Compensation			
Tax benefits realized in connection with vesting and release of awards	$ 249	$ 175	$ 139
Restricted Stock Units			
Stock-Based Compensation			
Fair value of stock units granted	1,288	1,195	1,220
Fair value of stock units vested	801	549	478
Performance Share Units			
Stock-Based Compensation			
Fair value of stock units granted	136	201	186
Fair value of stock units vested	$ 77	$ 75	$ 86

Stock-Based Compensation - Stock Option (Details) $ / shares in Units, $ in Millions	12 Months Ended		
	Dec. 31, 2022 USD ($) item $ / shares shares	Dec. 31, 2021 USD ($) $ / shares shares	Dec. 31, 2020 USD ($)
Stock options			
Treasury stock, Shares (in shares) | shares	1,351,024,943	1,350,509,249	
Stock awards outstanding (in shares) | shares	6,274,525	1,549,732	
Stock awards weighted-average grant price (in dollars per share) | $ / shares	$ 128	$ 135	
Stock-based compensation cost	$ 987	$ 919	$ 873
Stock options			
Stock options			
Equal increments | item	4		
Contractual term	10 years		
Anniversaries of the grant date | item	4		
Weighted-average fair value | $ / shares	$ 14.29		
Weighted-average remaining contractual term for options outstanding	7 years 8 months 12 days		
Options outstanding, total intrinsic value	$ 87		
Weighted-average remaining contractual term for options vested and exercisable	3 years 1 month 6 days		
Options vested and exercisable, aggregate intrinsic value	$ 12		

Stock Based Compensation - Weighted Average Assumptions (Details)	12 Months Ended
	Dec. 31, 2022
Share-based Compensation Arrangement by Share-based Payment Award [Line Items]	
Expected term (years)	6 years 3 months 18 days
Expected volatility	25.50%
Risk-free rate	2.00%
Dividend yield	5.30%

Stock Based Compensation - Stock Options Activity (Details)	12 Months Ended Dec. 31, 2022 $ / shares shares
Weighted-Average Exercise Price	
Outstanding, beginning balance (in dollars per share) | $ / shares	$ 135
Option granted (in dollars per share) | $ / shares	125
Options forfeited/canceled/expired (in dollars per share) | $ / shares	125
Outstanding, ending balance (in dollars per share) | $ / shares	128
Vested and exercisable (in dollars per share) | $ / shares	$ 135
Number of Shares under Option	
Outstanding, beginning balance (in shares) | shares	1,549,732
Options granted (in shares) | shares	5,044,353
Options forfeited/cancelled/expired (in shares) | shares	(319,560)
Outstanding, ending balance (in shares) | shares	6,274,525
Vested and exercisable (in shares) | shares	1,549,732

Stock-Based Compensation - Acquisitions (Details) - Stock options shares in Millions	12 Months Ended Dec. 31, 2022 $ / shares shares
Share-based Compensation Arrangement by Share-based Payment Award	
Stock awards converted & outstanding (in shares) | shares	0.4
Weighted-average exercise price for stock options from acquisitions | $ / shares	$ 20

Stock-Based Compensation - ESPP (Details) - USD ($)	3 Months Ended	9 Months Ended	12 Months Ended		
	Mar. 31, 2022	Dec. 31, 2022	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Stock-Based Compensation					
Average market price			$ 114		
Employee Stock Purchase Plan					
Stock-Based Compensation					
Discount on purchase of common stock (as a percent)	5.00%	15.00%			
Maximum percentage of payroll deductions on eligible compensation		10.00%	10.00%		
Maximum stock purchases by employees in a calendar year, value			$ 25,000		
Maximum stock purchases by employees in an offering period (in shares)			1,000		
Shares purchased by employees under the ESPP (in shares)			2,400,000	1,000,000.0	1,100,000
Shares available for purchase (in shares)		14,400,000	14,400,000		

Retirement-Related Benefits - Defined Benefit Plans (Details)	12 Months Ended
	Dec. 31, 2022
U.S. | Pension Plans | Personal Pension Plan (PPP)	
Defined Benefit Plans	
Period used in final pay formula that determines benefits	5 years

Retirement-Related Benefits - Defined Contribution Plans (Details)	12 Months Ended Dec. 31, 2022
IBM 401(k) Plus Plan	
Defined Contribution Plans	
Employer's automatic contribution as a percentage of eligible compensation, lowest level defined	1.00%
Employer's automatic contribution as a percentage of eligible compensation, second level defined	2.00%
Employer's automatic contribution as a percentage of eligible compensation, highest level defined	4.00%
Service period after which employees receive automatic and matching contributions	1 year
Nonqualified Plans | IBM Excess 401(k) Plus Plan	
Defined Contribution Plans	
Service period after which employees receive automatic and matching contributions	1 year
Pension Plans | Qualified Plans | IBM 401(k) Plus Plan	
Defined Contribution Plans	
Percentage of dollar-for-dollar match by entity to employee contribution of eligible compensation for employees, lowest level defined	5.00%
Percentage of dollar-for-dollar match by entity to employee contribution of eligible compensation for employees, highest level defined	6.00%

Retirement-Related Benefits - All Retirement Plans Cost (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
RETIREMENT-RELATED BENEFITS			
Defined contribution plans cost	$ 924	$ 992	$ 1,015
Total	7,732	2,601	2,451
Pension Plans			
RETIREMENT-RELATED BENEFITS			
Total defined benefit plans (income)/cost	6,693	1,438	1,235
Nonpension Postretirement Plans			
RETIREMENT-RELATED BENEFITS			
Total defined benefit plans (income)/cost	115	172	202
U.S.			
RETIREMENT-RELATED BENEFITS			
Defined contribution plans cost	555	582	612
Total	6,497	1,029	934
U.S. | Pension Plans			
RETIREMENT-RELATED BENEFITS			
Total defined benefit plans (income)/cost	5,857	319	178
U.S. | Nonpension Postretirement Plans			
RETIREMENT-RELATED BENEFITS			
Total defined benefit plans (income)/cost	85	127	145
Non-US			
RETIREMENT-RELATED BENEFITS			
Defined contribution plans cost	369	409	403
Total	1,235	1,573	1,517
Non-US | Pension Plans			
RETIREMENT-RELATED BENEFITS			
Total defined benefit plans (income)/cost	836	1,119	1,057
Non-US | Nonpension Postretirement Plans			
RETIREMENT-RELATED BENEFITS			
Total defined benefit plans (income)/cost	30	44	57
Personal Pension Plan (PPP) | Pension Plans			
RETIREMENT-RELATED BENEFITS			
Total defined benefit plans (income)/cost	6,685	1,422	1,224
Personal Pension Plan (PPP) | U.S. | Pension Plans			
RETIREMENT-RELATED BENEFITS			
Total defined benefit plans (income)/cost	5,849	303	167
Personal Pension Plan (PPP) | Non-US | Pension Plans			
RETIREMENT-RELATED BENEFITS			
Total defined benefit plans (income)/cost	836	1,119	1,057
Retention Plan | Pension Plans			
RETIREMENT-RELATED BENEFITS			

Total defined benefit plans (income)/cost	8	16	11
Retention Plan | U.S. | Pension Plans			
RETIREMENT-RELATED BENEFITS			
Total defined benefit plans (income)/cost	8	16	11
IBM 401(k) Plus Plan and Non-U.S. Defined Contribution Plans			
RETIREMENT-RELATED BENEFITS			
Defined contribution plans cost	899	971	988
IBM 401(k) Plus Plan and Non-U.S. Defined Contribution Plans | U.S.			
RETIREMENT-RELATED BENEFITS			
Defined contribution plans cost	530	561	585
IBM 401(k) Plus Plan and Non-U.S. Defined Contribution Plans | Non-US			
RETIREMENT-RELATED BENEFITS			
Defined contribution plans cost	369	409	403
IBM Excess 401(k) Plus Plan			
RETIREMENT-RELATED BENEFITS			
Defined contribution plans cost	25	21	27
IBM Excess 401(k) Plus Plan | U.S.			
RETIREMENT-RELATED BENEFITS			
Defined contribution plans cost	$ 25	$ 21	$ 27

Retirement-Related Benefits - PBO, APBO, FV of Plan Assets, Funded Status (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Overfunded plans			
Funded status of plan			
Benefit Obligations	$ 35,541	$ 68,075	
Fair Value of Plan Assets	43,778	77,924	
Funded Status	8,236	9,850	
Underfunded plans			
Funded status of plan			
Benefit Obligations	20,113	29,246	
Fair Value of Plan Assets	9,726	13,947	
Funded Status	$ (10,387)	(15,300)	
Pension Plans			
Funded status of plan			
Percentage of plan funded	101.00%		
Pension Plans | Qualified Plans			
Funded status of plan			
Percentage of plan funded	114.00%		
U.S. | Underfunded plans			
Funded status of plan			
Benefit Obligations	$ 3,771	5,128	
Fair Value of Plan Assets	10	8	
Funded Status	(3,761)	(5,119)	
U.S. | Underfunded plans | Personal Pension Plan (PPP)			
Funded status of plan			
Benefit Obligations	1,173	1,441	
Funded Status	(1,173)	(1,441)	
U.S. | Underfunded plans | Retention Plan			
Funded status of plan			
Benefit Obligations	228	283	
Funded Status	(228)	(283)	
U.S. | Pension Plans			
Funded status of plan			
Benefit Obligations	21,493	48,182	$ 52,237
Fair Value of Plan Assets	25,094	51,852	54,386
Funded Status	3,600	3,671	
U.S. | Pension Plans | Qualified Plans | Overfunded plans | Personal Pension Plan (PPP)			
Funded status of plan			
Benefit Obligations	20,091	46,458	
Fair Value of Plan Assets	25,094	51,852	

Funded Status	$ 5,002	5,395	
U.S. | Pension Plans | Nonqualified Plans | Personal Pension Plan (PPP)			
Funded status of plan			
Percentage of plan funded	125.00%		
U.S. | Nonpension Postretirement Plans			
Funded status of plan			
Benefit Obligations	$ 2,369	3,404	3,791
Fair Value of Plan Assets	10	8	15
Funded Status	(2,359)	(3,395)	
U.S. | Nonpension Postretirement Plans | Underfunded plans			
Funded status of plan			
Benefit Obligations	2,369	3,404	
Fair Value of Plan Assets	10	8	
Funded Status	(2,359)	(3,395)	
Non-US | Overfunded plans			
Funded status of plan			
Benefit Obligations	15,450	21,617	
Fair Value of Plan Assets	18,684	26,071	
Funded Status	3,234	4,454	
Non-US | Underfunded plans			
Funded status of plan			
Benefit Obligations	16,342	24,118	
Fair Value of Plan Assets	9,716	13,939	
Funded Status	(6,626)	(10,179)	
Non-US | Pension Plans			
Funded status of plan			
Benefit Obligations	31,261	45,097	50,447
Fair Value of Plan Assets	28,371	39,979	42,308
Funded Status	(2,891)	(5,118)	
Non-US | Pension Plans | Qualified Plans | Overfunded plans			
Funded status of plan			
Benefit Obligations	15,443	21,617	
Fair Value of Plan Assets	18,677	26,071	
Funded Status	3,234	4,454	
Non-US | Pension Plans | Qualified Plans | Underfunded plans			
Funded status of plan			
Benefit Obligations	11,361	17,360	
Fair Value of Plan Assets	9,694	13,908	
Funded Status	(1,667)	(3,452)	
Non-US | Pension Plans | Nonqualified Plans | Underfunded plans			
Funded status of plan			
Benefit Obligations	4,457	6,120	
Funded Status	(4,457)	(6,120)	
Non-US | Nonpension Postretirement Plans			

Funded status of plan			
Benefit Obligations	531	638	756
Fair Value of Plan Assets	29	31	$ 40
Funded Status	(501)	(607)	
Non-US | Nonpension Postretirement Plans | Overfunded plans			
Funded status of plan			
Benefit Obligations	7		
Fair Value of Plan Assets	7		
Funded Status	0		
Non-US | Nonpension Postretirement Plans | Underfunded plans			
Funded status of plan			
Benefit Obligations	524	638	
Fair Value of Plan Assets	22	31	
Funded Status	$ (502)	$ (607)	

Retirement-Related Benefits - Contributions - (Details) - USD ($) $ in Millions	12 Months Ended	
	Dec. 31, 2022	Dec. 31, 2021
Retirement-Related Benefits		
Total plan contributions	$ 1,962	$ 2,085
Active Medical Trust		
Retirement-Related Benefits		
Contributions by employer - Noncash	557	424
Non-U.S. DB plans		
Retirement-Related Benefits		
Total plan contributions	103	86
Nonpension Postretirement Plans		
Retirement-Related Benefits		
Total plan contributions	344	319
Nonpension Postretirement Plans | Non-U.S. DB plans		
Retirement-Related Benefits		
Contributions by employer - Noncash	349	$ 416
Non-US | Pension Plans, Including Multi-employer Plans		
Retirement-Related Benefits		
Estimated cash contributions to the defined benefit plans in next fiscal year	$ 200	

Retirement-Related Benefits - Net Periodic Cost (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Pension Plans			
Components of net periodic (income)/cost of the retirement-related benefit plans			
Total net periodic pension / nonpension (income)/cost of defined benefit plans	$ 6,693	$ 1,438	$ 1,235
Nonpension Postretirement Plans			
Components of net periodic (income)/cost of the retirement-related benefit plans			
Total net periodic pension / nonpension (income)/cost of defined benefit plans	115	172	202
U.S. | Pension Plans			
Components of net periodic (income)/cost of the retirement-related benefit plans			
Interest cost	$ 1,129	$ 1,109	$ 1,501
Interest cost - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Expected return on plan assets	$ (1,729)	$ (1,802)	$ (2,169)
Expected return on plan assets - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Amortization of transition assets - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Amortization of prior service costs/(credits)	$ 8	$ 16	$ 16
Amortization of prior service costs/(credits) - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Recognized actuarial losses	$ 527	$ 996	$ 829
Recognized actuarial losses - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Curtailments and settlements	$ 5,923		
Curtailments and settlements - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Other costs/(credits) - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Total net periodic pension / nonpension (income)/cost of defined benefit plans	$ 5,857	$ 319	$ 178
U.S. | Nonpension Postretirement Plans			
Components of net periodic (income)/cost of the retirement-related benefit plans			
Service cost	5	7	9
Interest cost	$ 85	$ 65	$ 103
Interest cost - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)

Expected return on plan assets - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Amortization of transition assets - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Amortization of prior service costs/(credits)	$ (10)	$ 4	$ 4
Amortization of prior service costs/(credits) - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Recognized actuarial losses	$ 5	$ 52	$ 29
Recognized actuarial losses - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Curtailments and settlements - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Total net periodic pension / nonpension (income)/cost of defined benefit plans	$ 85	$ 127	$ 145
Non-US | Pension Plans			
Components of net periodic (income)/cost of the retirement-related benefit plans			
Service cost	237	300	328
Interest cost	$ 493	$ 424	$ 541
Interest cost - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Expected return on plan assets	$ (1,016)	$ (1,115)	$ (1,229)
Expected return on plan assets - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Amortization of transition assets - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Amortization of prior service costs/(credits)	$ 14	$ (12)	$ (9)
Amortization of prior service costs/(credits) - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Recognized actuarial losses	$ 1,031	$ 1,392	$ 1,336
Recognized actuarial losses - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Curtailments and settlements	$ 47	$ 94	$ 49
Curtailments and settlements - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Multi-employer plans	$ 15	$ 17	$ 23
Other costs/(credits)	$ 15	$ 18	$ 18
Other costs/(credits) - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Total net periodic pension / nonpension (income)/cost of defined benefit plans	$ 836	$ 1,119	$ 1,057
Non-US | Nonpension Postretirement Plans			
Components of net periodic (income)/cost of the retirement-related benefit plans			
Service cost	3	4	4
Interest cost	$ 24	$ 27	$ 35

Interest cost - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Expected return on plan assets	$ (2)	$ (3)	$ (4)
Expected return on plan assets - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Amortization of transition assets - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Amortization of prior service costs/(credits)	$ 0	$ 0	$ 0
Amortization of prior service costs/(credits) - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Recognized actuarial losses	$ 4	$ 15	$ 21
Recognized actuarial losses - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Curtailments and settlements	$ 0	$ 0	$ 0
Curtailments and settlements - income statement location	Other (income) and expense (Note A)	Other (income) and expense (Note A)	Other (income) and expense (Note A)
Other costs/(credits)	$ 0	$ 0	$ 0
Total net periodic pension / nonpension (income)/cost of defined benefit plans	30	44	57
Personal Pension Plan (PPP) | Pension Plans			
Components of net periodic (income)/cost of the retirement-related benefit plans			
Total net periodic pension / nonpension (income)/cost of defined benefit plans	6,685	1,422	1,224
Personal Pension Plan (PPP) | U.S. | Pension Plans			
Components of net periodic (income)/cost of the retirement-related benefit plans			
Total net periodic pension / nonpension (income)/cost of defined benefit plans	5,849	303	167
Personal Pension Plan (PPP) | Non-US | Pension Plans			
Components of net periodic (income)/cost of the retirement-related benefit plans			
Total net periodic pension / nonpension (income)/cost of defined benefit plans	$ 836	$ 1,119	$ 1,057

Retirement-Related Benefits - Change in Benefit Obligation and Plan Assets (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Pension Plans			
Change in plan assets			
Future participant compensation increases	$ 0	$ 0	
Pension Plans | U.S.			
Change in benefit obligation			
Benefit obligation, balance at beginning of period	48,182	52,237	
Interest cost	1,129	1,109	$ 1,501
Actuarial losses/(gains)	(7,849)	(1,582)	
Benefits paid from trust	(3,133)	(3,181)	
Direct benefit payments	(123)	(125)	
Amendments/curtailments/settlements/other	(16,712)	(276)	
Benefit obligation, balance at end of period	21,493	48,182	52,237
Change in plan assets			
Fair value of plan assets, balance at beginning of period	51,852	54,386	
Actual return on plan assets	(6,914)	924	
Benefits paid from trust	(3,133)	(3,181)	
Amendments/curtailments/settlements/other	(16,712)	(276)	
Fair value of plan assets, balance at end of period	25,094	51,852	$ 54,386
Funded status	3,600	3,671	
Accumulated benefit obligation	$ 21,493	$ 48,182	
Discount rate	5.30%	2.60%	2.20%
Pension Plans | Non-US			
Change in benefit obligation			
Benefit obligation, balance at beginning of period	$ 45,097	$ 50,447	
Service cost	237	300	$ 328
Interest cost	493	424	541
Plan participants' contributions	14	19	
Acquisitions/divestitures, net	(45)	(70)	
Actuarial losses/(gains)	(8,819)	(876)	
Benefits paid from trust	(1,572)	(1,736)	
Direct benefit payments	(418)	(516)	
Foreign exchange impact	(3,463)	(2,548)	
Amendments/curtailments/settlements/other	(262)	(347)	
Benefit obligation, balance at end of period	31,261	45,097	50,447
Change in plan assets			
Fair value of plan assets, balance at beginning of period	39,979	42,308	
Actual return on plan assets	(6,737)	1,686	
Employer contributions	103	86	
Acquisitions/divestitures, net	(20)	(87)	

Plan participant's contributions	14	19	
Benefits paid from trust	(1,572)	(1,736)	
Foreign exchange impact	(3,154)	(1,939)	
Amendments/curtailments/settlements/other	(243)	(358)	
Fair value of plan assets, balance at end of period	28,371	39,979	$ 42,308
Funded status	(2,891)	(5,118)	
Accumulated benefit obligation	$ 30,961	$ 44,628	
Discount rate	3.80%	1.26%	0.87%
Nonpension Postretirement Plans | U.S.			
Change in benefit obligation			
Benefit obligation, balance at beginning of period	$ 3,404	$ 3,791	
Service cost	5	7	$ 9
Interest cost	85	65	103
Plan participants' contributions	43	50	
Actuarial losses/(gains)	(780)	(141)	
Benefits paid from trust	(385)	(369)	
Direct benefit payments	(2)	(1)	
Amendments/curtailments/settlements/other	0	3	
Benefit obligation, balance at end of period	2,369	3,404	3,791
Change in plan assets			
Fair value of plan assets, balance at beginning of period	8	15	
Employer contributions	344	313	
Plan participant's contributions	43	50	
Benefits paid from trust	(385)	(369)	
Amendments/curtailments/settlements/other	0	0	
Fair value of plan assets, balance at end of period	10	8	$ 15
Funded status	$ (2,359)	$ (3,395)	
Discount rate	5.30%	2.30%	1.80%
Nonpension Postretirement Plans | Non-US			
Change in benefit obligation			
Benefit obligation, balance at beginning of period	$ 638	$ 756	
Service cost	3	4	$ 4
Interest cost	24	27	35
Acquisitions/divestitures, net		6	
Actuarial losses/(gains)	(87)	(78)	
Benefits paid from trust	(6)	(6)	
Direct benefit payments	(32)	(28)	
Foreign exchange impact	(10)	(42)	
Amendments/curtailments/settlements/other	(1)	(1)	
Benefit obligation, balance at end of period	531	638	756
Change in plan assets			
Fair value of plan assets, balance at beginning of period	31	40	
Actual return on plan assets	3	(14)	
Employer contributions		6	

Benefits paid from trust	(6)	(6)	
Foreign exchange impact	2	6	
Amendments/curtailments/settlements/other	0	0	
Fair value of plan assets, balance at end of period	29	31	$ 40
Funded status	$ (501)	$ (607)	
Discount rate	7.25%	5.35%	4.55%

Retirement-Related Benefits - Net Funded Status (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Net funded status recognized in the Consolidated Balance Sheet		
Prepaid pension assets	$ 8,236	$ 9,850
Current liabilities - compensation and benefits	(3,481)	(3,204)
Noncurrent liabilities - retirement and nonpension postretirement benefit obligations	(9,596)	(14,435)
Pension Plans | U.S.		
Net funded status recognized in the Consolidated Balance Sheet		
Prepaid pension assets	5,002	5,395
Current liabilities - compensation and benefits	(121)	(123)
Noncurrent liabilities - retirement and nonpension postretirement benefit obligations	(1,281)	(1,601)
Funded Status-net	3,600	3,671
Pension Plans | Non-US		
Net funded status recognized in the Consolidated Balance Sheet		
Prepaid pension assets	3,234	4,455
Current liabilities - compensation and benefits	(347)	(359)
Noncurrent liabilities - retirement and nonpension postretirement benefit obligations	(5,777)	(9,215)
Funded Status-net	(2,891)	(5,118)
Nonpension Postretirement Plans | U.S.		
Net funded status recognized in the Consolidated Balance Sheet		
Prepaid pension assets	0	0
Current liabilities - compensation and benefits	(307)	(364)
Noncurrent liabilities - retirement and nonpension postretirement benefit obligations	(2,052)	(3,031)
Funded Status-net	(2,359)	(3,395)
Nonpension Postretirement Plans | Non-US		
Net funded status recognized in the Consolidated Balance Sheet		
Prepaid pension assets	0	0
Current liabilities - compensation and benefits	(16)	(19)
Noncurrent liabilities - retirement and nonpension postretirement benefit obligations	(486)	(588)
Funded Status-net	$ (501)	$ (607)

Retirement-Related Benefits - OCI and AOCI (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Changes in AOCI for retirement-related benefits			
Current period loss/(gain)	$ (878)	$ (2,433)	$ 1,678
Curtailments and settlements	(5,970)	(94)	(52)
Amortization of net loss included in net periodic (income)/cost	(1,596)	(2,484)	(2,314)
Current period prior service costs/(credits)	(463)	51	37
Amortization of prior service (costs)/credits included in net periodic (income)/cost	(12)	(9)	(13)
Pension Plans | U.S.			
Changes in AOCI for retirement-related benefits			
Net loss at beginning of period	14,273	15,972	
Current period loss/(gain)	794	(704)	
Curtailments and settlements	(5,923)		
Amortization of net loss included in net periodic (income)/cost	(527)	(996)	
Net loss at end of period	8,617	14,273	15,972
Prior service costs/(credits) at beginning of period	8	24	
Amortization of prior service (costs)/credits included in net periodic (income)/cost	(8)	(16)	
Prior service costs/(credits) at end of period	0	8	24
Total loss recognized in accumulated other comprehensive income/(loss)	8,617	14,281	
Pension Plans | Non-US			
Changes in AOCI for retirement-related benefits			
Net loss at beginning of period	13,412	16,310	
Current period loss/(gain)	(1,115)	(1,411)	
Curtailments and settlements	(47)	(94)	
Amortization of net loss included in net periodic (income)/cost	(1,031)	(1,392)	
Net loss at end of period	11,219	13,412	16,310
Prior service costs/(credits) at beginning of period	397	325	
Current period prior service costs/(credits)	(53)	60	
Amortization of prior service (costs)/credits included in net periodic (income)/cost	(14)	12	
Prior service costs/(credits) at end of period	330	397	325
Transition (assets)/liabilities at beginning of period	0	0	
Transition (assets)/liabilities at end of period	0	0	0
Total loss recognized in accumulated other comprehensive income/(loss)	11,549	13,809	
Nonpension Postretirement Plans | U.S.			
Changes in AOCI for retirement-related benefits			
Net loss at beginning of period	464	656	
Current period loss/(gain)	(365)	(141)	
Amortization of net loss included in net periodic (income)/cost	(5)	(52)	
Net loss at end of period	94	464	656

Prior service costs/(credits) at beginning of period	26	30	
Current period prior service costs/(credits)	(415)		
Amortization of prior service (costs)/credits included in net periodic (income)/cost	10	(4)	
Prior service costs/(credits) at end of period	(379)	26	30
Total loss recognized in accumulated other comprehensive income/(loss)	(285)	490	
Nonpension Postretirement Plans | Non-US			
Changes in AOCI for retirement-related benefits			
Net loss at beginning of period	183	263	
Current period loss/(gain)	(93)	(65)	
Curtailments and settlements	0	0	
Amortization of net loss included in net periodic (income)/cost	(4)	(15)	
Net loss at end of period	86	183	263
Prior service costs/(credits) at beginning of period	(4)	(4)	
Current period prior service costs/(credits)	5	0	
Amortization of prior service (costs)/credits included in net periodic (income)/cost	0	0	
Prior service costs/(credits) at end of period	0	(4)	(4)
Transition (assets)/liabilities at beginning of period	0	0	
Amortization of transition assets/(liabilities) included in net periodic (income)/cost		0	
Transition (assets)/liabilities at end of period	0	0	$ 0
Total loss recognized in accumulated other comprehensive income/(loss)	$ 86	$ 179	

Retirement-Related Benefits - Assumptions (Details)		12 Months Ended			
	Jan. 01, 2023	Dec. 31, 2023	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Pension Plans					
Expected Long-Term Returns on Plan Assets					
Period over which changes in fair value of plan assets recognized			5 years		
Pension Plans | U.S.					
Weighted-average assumptions used to measure net periodic (income)/ cost for the year ended December 31					
Discount rate			3.30%	2.20%	3.10%
Expected long-term returns on plan assets			4.33%	3.75%	4.50%
Interest crediting rate			2.07%	1.10%	2.70%
Weighted-average assumptions used to measure benefit obligations at December 31					
Discount rate			5.30%	2.60%	2.20%
Interest crediting rate			4.40%	1.10%	1.10%
Pension Plans | U.S. | Expected					
Weighted-average assumptions used to measure net periodic (income)/ cost for the year ended December 31					
Expected long-term returns on plan assets		5.50%			
Pension Plans | U.S. | Personal Pension Plan (PPP)					
Interest Crediting Rate					
Maturity period of the average interest from August to October of the one-year U.S. Treasury Constant Maturity yield for computation of interest crediting rate			1 year		
Percentage interest rate added to average interest from August to October of the one-year U.S. Treasury Constant Maturity yield for computation of interest crediting rate (as a percent)			1.00%		
Pension Plans | Non-US					
Weighted-average assumptions used to measure net periodic (income)/ cost for the year ended December 31					
Discount rate			1.26%	0.87%	1.20%
Expected long-term returns on plan assets			2.97%	2.85%	3.36%
Rate of compensation increase			3.02%	2.59%	2.32%
Interest crediting rate			0.26%	0.26%	0.28%
Weighted-average assumptions used to measure benefit obligations at December 31					
Discount rate			3.80%	1.26%	0.87%
Rate of compensation increase			4.00%	3.02%	2.59%
Interest crediting rate			0.34%	0.26%	0.26%
Pension Plans | Non-US | Expected					
Weighted-average assumptions used to measure net periodic (income)/ cost for the year ended December 31					

Expected long-term returns on plan assets		4.44%			
Nonpension Postretirement Plans | U.S.					
Weighted-average assumptions used to measure net periodic (income)/ cost for the year ended December 31					
Discount rate			3.05%	1.80%	2.80%
Interest crediting rate			2.16%	1.10%	2.70%
Weighted-average assumptions used to measure benefit obligations at December 31					
Discount rate			5.30%	2.30%	1.80%
Interest crediting rate			4.40%	1.10%	1.10%
Nonpension Postretirement Plans | Non-US					
Weighted-average assumptions used to measure net periodic (income)/ cost for the year ended December 31					
Discount rate			5.35%	4.55%	5.08%
Expected long-term returns on plan assets			6.64%	6.62%	7.73%
Weighted-average assumptions used to measure benefit obligations at December 31					
Discount rate			7.25%	5.35%	4.55%
Retiree Health Benefits					
Healthcare Cost Trend Rate					
Health care cost trend rate assumed for next fiscal year			5.40%		
Retiree Health Benefits | Expected					
Healthcare Cost Trend Rate					
Ultimate healthcare cost trend rate	(4.15%)				
Period for ultimate trend rate	14 years				

Retirement-Related Benefits - Assumptions - Remeasurement Adjustment Rates (Details) - U.S.	4 Months Ended Dec. 31, 2022	5 Months Ended Dec. 31, 2022	7 Months Ended Jul. 31, 2022	8 Months Ended Aug. 31, 2022
Pension Plans | Remeasurement Period One				
Weighted-average assumptions used to measure net periodic (income)/cost for the year ended December 31				
Discount rate, pre-remeasurement adjustment				2.60%
Discount rate, post-remeasurement adjustment	4.70%			
Expected long-term returns on plan assets, pre-remeasurement adjustment				4.00%
Expected long-term returns on plan assets, post-remeasurement adjustment	5.00%			
Interest crediting rate, pre-remeasurement adjustment				1.10%
Interest crediting rate, post-remeasurement adjustment	4.00%			
Nonpension Postretirement Plans | Remeasurement Period Two				
Weighted-average assumptions used to measure net periodic (income)/cost for the year ended December 31				
Discount rate, pre-remeasurement adjustment			2.30%	
Discount rate, post-remeasurement adjustment		4.10%		
Interest crediting rate, pre-remeasurement adjustment			1.10%	
Interest crediting rate, post-remeasurement adjustment		3.65%		

Retirement-Related Benefits - Investment Strategy (Details) - USD ($) $ in Millions	12 Months Ended Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
U.S. | Personal Pension Plan (PPP) | Qualified Plans | Equity securities			
Investment Policies And Strategies			
Target allocation (as a percent)	8.00%		
U.S. | Personal Pension Plan (PPP) | Qualified Plans | Fixed-income securities			
Investment Policies And Strategies			
Target allocation (as a percent)	83.00%		
U.S. | Personal Pension Plan (PPP) | Qualified Plans | Real Estate.			
Investment Policies And Strategies			
Target allocation (as a percent)	4.00%		
U.S. | Personal Pension Plan (PPP) | Qualified Plans | Other investments			
Investment Policies And Strategies			
Target allocation (as a percent)	5.00%		
U.S. | Personal Pension Plan (PPP) | Qualified Plans | Private equities and private real estate investments			
Investment Policies And Strategies			
Fair Value of plan assets	$ 3,159		
Commitments for future investments in private markets	$ 1,137		
Non-US | Maximum			
Investment Policies And Strategies			
Percentage of board members, elected by employees and retirees for managing investments (as a percent)	50.00%		
Non-US | Equity securities			
Investment Policies And Strategies			
Target allocation (as a percent)	17.00%		
Non-US | Fixed-income securities			
Investment Policies And Strategies			
Target allocation (as a percent)	62.00%		
Non-US | Real Estate.			
Investment Policies And Strategies			
Target allocation (as a percent)	3.00%		
Non-US | Insurance contracts			
Investment Policies And Strategies			
Target allocation (as a percent)	13.00%		
Non-US | Other investments			
Investment Policies And Strategies			
Target allocation (as a percent)	5.00%		
Pension Plans | U.S.			
Investment Policies And Strategies			
Fair Value of plan assets	$ 25,094	$ 51,852	$ 54,386

Pension Plans | Non-US			
Investment Policies And Strategies			
Fair Value of plan assets	$ 28,371	$ 39,979	$ 42,308

Retirement-Related Benefits - Pension and Nonpension Postretirement Plan Changes - (Details) $ in Millions	1 Months Ended Sep. 30, 2022 USD ($)	3 Months Ended Sep. 30, 2022 USD ($)	4 Months Ended Dec. 31, 2022 USD ($) item	12 Months Ended Dec. 31, 2022 USD ($)	Jan. 01, 2023	Dec. 31, 2021 USD ($)
Retirement-Related Benefits						
Benefit plan obligation and plan assets transferred to insurers	$ 16,000					
Pre-tax pension settlement charge		$ 5,900		$ 5,894		
Pension settlement charge, net of tax		4,400		4,400		
Accumulated other comprehensive income/(loss)			$ (16,740)	$ (16,740)		$ (23,234)
Pension Plans						
Retirement-Related Benefits						
Percentage of plan funded			101.00%	101.00%		
Pension Plans | U.S.						
Retirement-Related Benefits						
Accumulated benefit obligation			$ 21,493	$ 21,493		$ 48,182
Qualified Plans | U.S.						
Retirement-Related Benefits						
Benefit plan obligation and plan assets transferred to insurers	$ 16,000					
Qualified Plans | Pension Plans						
Retirement-Related Benefits						
Percentage of plan funded			114.00%	114.00%		
Qualified Plans | Pension Plans | U.S.						
Retirement-Related Benefits						
Benefit plan obligation and plan assets transferred to insurers				$ 16,000		
Number of participants transferred to insurers | item			100,000			
Changes to the benefits to be received by the Transferred Participants		0				
Pre-tax pension settlement charge		5,900		$ 5,900		
Pension settlement charge, net of tax		$ 4,400				
Expected | Qualified Plans | Pension Plans | U.S.						
Retirement-Related Benefits						
Percentage of transferred participant pension benefits each insurer is responsible to pay					50.00%	

Retirement-Related Benefits - Plan Assets (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
U.S. | Qualified Plans | Personal Pension Plan (PPP) | Level 3			
Retirement-Related Benefits			
Fair value of plan assets	$ 1,142	$ 598	
U.S. | Qualified Plans | Personal Pension Plan (PPP) | Level 3 | Corporate bonds			
Retirement-Related Benefits			
Fair value of plan assets	721	598	$ 542
U.S. | Qualified Plans | Personal Pension Plan (PPP) | Level 3 | Private Equity			
Retirement-Related Benefits			
Fair value of plan assets	421		
Non-US | Level 3			
Retirement-Related Benefits			
Fair value of plan assets	155	174	300
Non-US | Level 3 | Government and related			
Retirement-Related Benefits			
Fair value of plan assets	9		2
Non-US | Level 3 | Real Estate.			
Retirement-Related Benefits			
Fair value of plan assets	145	174	298
Pension Plans | U.S.			
Retirement-Related Benefits			
Fair value of plan assets, gross	18,855	43,070	
Investments measured at net asset value using the NAV expedient	6,242	9,078	
Other	(4)	(296)	
Fair value of plan assets	25,094	51,852	54,386
Pension Plans | U.S. | Equity Securities			
Retirement-Related Benefits			
Fair value of plan assets, gross	518	2,023	
Pension Plans | U.S. | Equity mutual funds			
Retirement-Related Benefits			
Fair value of plan assets, gross	114	133	
Pension Plans | U.S. | Government and related			
Retirement-Related Benefits			
Fair value of plan assets, gross	9,074	21,751	
Pension Plans | U.S. | Corporate bonds			
Retirement-Related Benefits			
Fair value of plan assets, gross	7,606	16,844	
Value of IBM securities included in plan assets	6	19	
Pension Plans | U.S. | Mortgage and asset-backed securities			

Retirement-Related Benefits		
Fair value of plan assets, gross	238	660
Pension Plans | U.S. | Fixed income mutual funds		
Retirement-Related Benefits		
Fair value of plan assets, gross	234	281
Pension Plans | U.S. | Cash and short-term investments		
Retirement-Related Benefits		
Fair value of plan assets, gross	643	1,373
Pension Plans | U.S. | Private Equity		
Retirement-Related Benefits		
Fair value of plan assets, gross	421	
Pension Plans | U.S. | Real Estate.		
Retirement-Related Benefits		
Fair value of plan assets, gross	8	
Pension Plans | U.S. | Derivatives		
Retirement-Related Benefits		
Fair value of plan assets, gross		5
Pension Plans | U.S. | Level 1		
Retirement-Related Benefits		
Fair value of plan assets, gross	937	2,543
Fair value of plan assets	937	2,543
Pension Plans | U.S. | Level 1 | Equity Securities		
Retirement-Related Benefits		
Fair value of plan assets, gross	518	2,023
Pension Plans | U.S. | Level 1 | Equity mutual funds		
Retirement-Related Benefits		
Fair value of plan assets, gross	114	133
Pension Plans | U.S. | Level 1 | Fixed income mutual funds		
Retirement-Related Benefits		
Fair value of plan assets, gross	234	281
Pension Plans | U.S. | Level 1 | Cash and short-term investments		
Retirement-Related Benefits		
Fair value of plan assets, gross	72	104
Pension Plans | U.S. | Level 1 | Derivatives		
Retirement-Related Benefits		
Fair value of plan assets, gross		3
Pension Plans | U.S. | Level 2		
Retirement-Related Benefits		
Fair value of plan assets, gross	16,776	39,930
Fair value of plan assets	16,776	39,930
Pension Plans | U.S. | Level 2 | Equity Securities		
Retirement-Related Benefits		
Fair value of plan assets, gross		0
Pension Plans | U.S. | Level 2 | Government and related		

Retirement-Related Benefits			
Fair value of plan assets, gross	9,074	21,751	
Pension Plans | U.S. | Level 2 | Corporate bonds			
Retirement-Related Benefits			
Fair value of plan assets, gross	6,885	16,246	
Pension Plans | U.S. | Level 2 | Mortgage and asset-backed securities			
Retirement-Related Benefits			
Fair value of plan assets, gross	238	660	
Pension Plans | U.S. | Level 2 | Cash and short-term investments			
Retirement-Related Benefits			
Fair value of plan assets, gross	570	1,269	
Pension Plans | U.S. | Level 2 | Real Estate.			
Retirement-Related Benefits			
Fair value of plan assets, gross	8		
Pension Plans | U.S. | Level 2 | Derivatives			
Retirement-Related Benefits			
Fair value of plan assets, gross		3	
Pension Plans | U.S. | Level 3			
Retirement-Related Benefits			
Fair value of plan assets, gross	1,142	598	
Fair value of plan assets	1,142	598	
Pension Plans | U.S. | Level 3 | Corporate bonds			
Retirement-Related Benefits			
Fair value of plan assets, gross	721	598	
Pension Plans | U.S. | Level 3 | Private Equity			
Retirement-Related Benefits			
Fair value of plan assets, gross	421		
Pension Plans | U.S. | Qualified Plans | Personal Pension Plan (PPP) | Equity Securities			
Retirement-Related Benefits			
Value of IBM securities included in plan assets	1	2	
Pension Plans | Non-US			
Retirement-Related Benefits			
Fair value of plan assets, gross	14,308	21,374	
Investments measured at net asset value using the NAV expedient	14,141	18,652	
Other	(78)	(47)	
Fair value of plan assets	28,371	39,979	42,308
Pension Plans | Non-US | Equity Securities			
Retirement-Related Benefits			
Fair value of plan assets, gross	247	485	
Value of IBM securities included in plan assets	2	2	
Pension Plans | Non-US | Equity mutual funds			
Retirement-Related Benefits			
Fair value of plan assets, gross	0	0	

Pension Plans | Non-US | Government and related		
Retirement-Related Benefits		
Fair value of plan assets, gross	6,837	9,900
Pension Plans | Non-US | Corporate bonds		
Retirement-Related Benefits		
Fair value of plan assets, gross	2,546	3,842
Value of IBM securities included in plan assets	3	4
Pension Plans | Non-US | Mortgage and asset-backed securities		
Retirement-Related Benefits		
Fair value of plan assets, gross	2	3
Pension Plans | Non-US | Fixed income mutual funds		
Retirement-Related Benefits		
Fair value of plan assets, gross	9	
Pension Plans | Non-US | Insurance contracts		
Retirement-Related Benefits		
Fair value of plan assets, gross	3,654	5,662
Pension Plans | Non-US | Cash and short-term investments		
Retirement-Related Benefits		
Fair value of plan assets, gross	549	728
Pension Plans | Non-US | Real Estate.		
Retirement-Related Benefits		
Fair value of plan assets, gross	145	174
Pension Plans | Non-US | Derivatives		
Retirement-Related Benefits		
Fair value of plan assets, gross	294	550
Pension Plans | Non-US | Other mutual funds		
Retirement-Related Benefits		
Fair value of plan assets, gross	25	30
Pension Plans | Non-US | Level 1		
Retirement-Related Benefits		
Fair value of plan assets, gross	590	900
Fair value of plan assets	590	900
Pension Plans | Non-US | Level 1 | Equity Securities		
Retirement-Related Benefits		
Fair value of plan assets, gross	247	485
Pension Plans | Non-US | Level 1 | Equity mutual funds		
Retirement-Related Benefits		
Fair value of plan assets, gross	0	0
Pension Plans | Non-US | Level 1 | Cash and short-term investments		
Retirement-Related Benefits		
Fair value of plan assets, gross	286	324
Pension Plans | Non-US | Level 1 | Derivatives		
Retirement-Related Benefits		
Fair value of plan assets, gross	32	61

Pension Plans | Non-US | Level 1 | Other mutual funds			
Retirement-Related Benefits			
Fair value of plan assets, gross	25	30	
Pension Plans | Non-US | Level 2			
Retirement-Related Benefits			
Fair value of plan assets, gross	13,563	20,300	
Fair value of plan assets	13,563	20,300	
Pension Plans | Non-US | Level 2 | Government and related			
Retirement-Related Benefits			
Fair value of plan assets, gross	6,837	9,900	
Pension Plans | Non-US | Level 2 | Corporate bonds			
Retirement-Related Benefits			
Fair value of plan assets, gross	2,546	3,842	
Pension Plans | Non-US | Level 2 | Mortgage and asset-backed securities			
Retirement-Related Benefits			
Fair value of plan assets, gross	2	3	
Pension Plans | Non-US | Level 2 | Insurance contracts			
Retirement-Related Benefits			
Fair value of plan assets, gross	3,654	5,662	
Pension Plans | Non-US | Level 2 | Cash and short-term investments			
Retirement-Related Benefits			
Fair value of plan assets, gross	263	403	
Pension Plans | Non-US | Level 2 | Derivatives			
Retirement-Related Benefits			
Fair value of plan assets, gross	262	489	
Pension Plans | Non-US | Level 3			
Retirement-Related Benefits			
Fair value of plan assets, gross	155	174	
Fair value of plan assets	155	174	
Pension Plans | Non-US | Level 3 | Fixed income mutual funds			
Retirement-Related Benefits			
Fair value of plan assets, gross	9		
Pension Plans | Non-US | Level 3 | Real Estate.			
Retirement-Related Benefits			
Fair value of plan assets, gross	145	174	
Nonpension Postretirement Plans | U.S.			
Retirement-Related Benefits			
Fair value of plan assets	10	8	15
Nonpension Postretirement Plans | U.S. | Level 1			
Retirement-Related Benefits			
Fair value of plan assets	10	8	
Nonpension Postretirement Plans | Non-US			
Retirement-Related Benefits			
Fair value of plan assets	29	31	$ 40

Nonpension Postretirement Plans | Non-US | Level 2

Retirement-Related Benefits

Fair value of plan assets	$ 29	$ 31

Retirement-Related Benefits - Level 3 Reconciliation (Details) - USD ($) $ in Millions	12 Months Ended	
	Dec. 31, 2022	Dec. 31, 2021
U.S. | Pension Plans		
Change in plan assets		
Fair value of plan assets, balance at beginning of period	$ 51,852	$ 54,386
Fair value of plan assets, balance at end of period	25,094	51,852
Non-US | Pension Plans		
Change in plan assets		
Fair value of plan assets, balance at beginning of period	39,979	42,308
Foreign exchange impact	(3,154)	(1,939)
Fair value of plan assets, balance at end of period	28,371	39,979
Level 3 | U.S. | Pension Plans		
Change in plan assets		
Fair value of plan assets, balance at beginning of period	598	
Fair value of plan assets, balance at end of period	1,142	598
Level 3 | U.S. | Personal Pension Plan (PPP) | Qualified Plans		
Change in plan assets		
Fair value of plan assets, balance at beginning of period	598	
Return on assets held at end of year	(114)	
Return on assets sold during the year	(2)	
Purchases, sales and settlements, net	206	
Transfers, net	454	
Fair value of plan assets, balance at end of period	1,142	598
Level 3 | U.S. | Personal Pension Plan (PPP) | Qualified Plans | Corporate bonds		
Change in plan assets		
Fair value of plan assets, balance at beginning of period	598	542
Return on assets held at end of year	(114)	(15)
Return on assets sold during the year	(2)	1
Purchases, sales and settlements, net	206	63
Transfers, net	33	6
Fair value of plan assets, balance at end of period	721	598
Level 3 | U.S. | Personal Pension Plan (PPP) | Qualified Plans | Private Equity		
Change in plan assets		
Transfers, net	421	
Fair value of plan assets, balance at end of period	421	
Level 3 | Non-US		
Change in plan assets		
Fair value of plan assets, balance at beginning of period	174	300
Return on assets held at end of year	6	(43)
Return on assets sold during the year	(1)	58
Purchases, sales and settlements, net	(7)	(140)
Transfers, net	0	

Foreign exchange impact	(19)	(1)
Fair value of plan assets, balance at end of period	155	174
Level 3 | Non-US | Government and related		
Change in plan assets		
Fair value of plan assets, balance at beginning of period		2
Return on assets held at end of year	0	0
Return on assets sold during the year		0
Purchases, sales and settlements, net	10	(2)
Foreign exchange impact	0	0
Fair value of plan assets, balance at end of period	9	
Level 3 | Non-US | Real Estate.		
Change in plan assets		
Fair value of plan assets, balance at beginning of period	174	298
Return on assets held at end of year	6	(43)
Return on assets sold during the year	(1)	58
Purchases, sales and settlements, net	(16)	(138)
Transfers, net	0	
Foreign exchange impact	(18)	(1)
Fair value of plan assets, balance at end of period	145	174
Level 3 | Non-US | Pension Plans		
Change in plan assets		
Fair value of plan assets, balance at beginning of period	174	
Fair value of plan assets, balance at end of period	$ 155	$ 174

Retirement-Related Benefits - Contributions and Direct Benefit Payments (Details) - USD ($) $ in Millions	12 Months Ended	
	Dec. 31, 2022	Dec. 31, 2021
Retirement-Related Benefits.		
Total	$ 1,962	$ 2,085
Non-U.S. DB plans		
Retirement-Related Benefits.		
Total	103	86
Multi-employer plans		
Retirement-Related Benefits.		
Total	15	17
DC plans		
Retirement-Related Benefits.		
Total	924	992
Direct Benefit Payments		
Retirement-Related Benefits.		
Total	576	671
Nonpension Postretirement Plans		
Retirement-Related Benefits.		
Total	344	319
Nonpension Postretirement Plans | Non-U.S. DB plans		
Retirement-Related Benefits.		
Contributions by employer - Noncash	$ 349	$ 416

Retirement-Related Benefits - Contributions, Defined Benefit Pension Plans (Details) $ in Millions	Dec. 31, 2022 USD ($)
Pension Plans, Including Multi-employer Plans | Non-US	
Pension Contributions	
Estimated cash contributions to the defined benefit plans in next fiscal year	$ 200

Retirement-Related Benefits - Expected Benefit Payments (Details) $ in Millions	Dec. 31, 2022 USD ($)
Pension Plans	
Expected Benefit Payments	
Expected benefit payments, 2023	$ 4,115
Expected benefit payments, 2024	4,106
Expected benefit payments, 2025	4,137
Expected benefit payments, 2026	4,077
Expected benefit payments, 2027	3,996
Expected benefit payments, 2028-2032	18,754
Nonpension Postretirement Plans	
Expected Benefit Payments	
Expected benefit payments, 2023	367
Expected benefit payments, 2024	294
Expected benefit payments, 2025	280
Expected benefit payments, 2026	272
Expected benefit payments, 2027	263
Expected benefit payments, 2028-2032	1,271
U.S. | Pension Plans | Qualified Plans	
Expected Benefit Payments	
Expected benefit payments, 2023	1,757
Expected benefit payments, 2024	1,791
Expected benefit payments, 2025	1,813
Expected benefit payments, 2026	1,765
Expected benefit payments, 2027	1,712
Expected benefit payments, 2028-2032	7,792
U.S. | Pension Plans | Nonqualified Plans	
Expected Benefit Payments	
Expected benefit payments, 2023	124
Expected benefit payments, 2024	123
Expected benefit payments, 2025	121
Expected benefit payments, 2026	119
Expected benefit payments, 2027	116
Expected benefit payments, 2028-2032	538
U.S. | Nonpension Postretirement Plans	
Expected Benefit Payments	
Expected benefit payments, 2023	326
Expected benefit payments, 2024	253
Expected benefit payments, 2025	238
Expected benefit payments, 2026	229
Expected benefit payments, 2027	220
Expected benefit payments, 2028-2032	1,043

Non-US | Pension Plans | Qualified Plans	
Expected Benefit Payments	
Expected benefit payments, 2023	1,893
Expected benefit payments, 2024	1,869
Expected benefit payments, 2025	1,879
Expected benefit payments, 2026	1,866
Expected benefit payments, 2027	1,846
Expected benefit payments, 2028-2032	8,876
Non-US | Pension Plans | Nonqualified Plans	
Expected Benefit Payments	
Expected benefit payments, 2023	342
Expected benefit payments, 2024	323
Expected benefit payments, 2025	324
Expected benefit payments, 2026	328
Expected benefit payments, 2027	321
Expected benefit payments, 2028-2032	1,548
Non-US | Nonpension Postretirement Plans | Qualified Plans	
Expected Benefit Payments	
Expected benefit payments, 2023	17
Expected benefit payments, 2024	18
Expected benefit payments, 2025	19
Expected benefit payments, 2026	20
Expected benefit payments, 2027	21
Expected benefit payments, 2028-2032	122
Non-US | Nonpension Postretirement Plans | Nonqualified Plans	
Expected Benefit Payments	
Expected benefit payments, 2023	23
Expected benefit payments, 2024	23
Expected benefit payments, 2025	23
Expected benefit payments, 2026	22
Expected benefit payments, 2027	22
Expected benefit payments, 2028-2032	$ 106

Retirement-Related Benefits - ABO and APBO in Excess of Plan Assets (Details) - USD ($) $ in Millions	Dec. 31, 2022	Dec. 31, 2021
Pension Plans		
Defined Benefit Plan, Pension and Non-Pension Plans with Accumulated Benefit Obligations in Excess of Plan Assets		
Plans with PBO in excess of plan assets, Benefit Obligation	$ 17,220	$ 25,204
Plans with PBO in excess of plan assets, Plan Assets	9,694	13,908
Plans with ABO in excess of plan assets, Benefit Obligation	16,979	24,853
Plans with ABO in excess of plan assets, Plan Assets	9,694	13,908
Plans with assets in excess of PBO, Benefit Obligation	35,534	68,075
Plans with assets in excess of PBO, Plan Assets	43,770	77,924
Nonpension Postretirement Plans		
Defined Benefit Plan, Pension and Non-Pension Plans with Accumulated Benefit Obligations in Excess of Plan Assets		
Plans with APBO in excess of plan assets, Benefit Obligation	2,893	4,042
Plans with APBO in excess of plan assets, Plan Assets	32	$ 40
Plans with plan assets in excess of APBO, Benefit Obligation	7	
Plans with plan assets in excess of APBO, Plan Assets	$ 7	

Subsequent Events (Details) - USD ($) $ / shares in Units, $ in Millions	Feb. 06, 2023	Jan. 31, 2023	Jan. 27, 2023	3 Months Ended Sep. 30, 2022	Mar. 31, 2022
Euro fixed-rate notes					
Subsequent Events					
Aggregate amount of debt issued					$ 2,300
Euro fixed-rate notes | Minimum					
Subsequent Events					
Credit facility term					8 years
Coupon rate (as a percent)					0.875%
Euro fixed-rate notes | Maximum					
Subsequent Events					
Credit facility term					12 years
Coupon rate (as a percent)					1.25%
U.S dollar. fixed-rate notes					
Subsequent Events					
Aggregate amount of debt issued				$ 3,250	$ 1,800
U.S dollar. fixed-rate notes | Minimum					
Subsequent Events					
Credit facility term				3 years	5 years
Coupon rate (as a percent)				4.00%	2.20%
U.S dollar. fixed-rate notes | Maximum					
Subsequent Events					
Credit facility term				30 years	30 years
Coupon rate (as a percent)				4.90%	3.43%
Subsequent event					
Subsequent Events					
Dividend declared, date		Jan. 31, 2023			
Dividend declared (in dollars per share)		$ 1.65			
Dividend payable, date		Mar. 10, 2023			
Shareholders of record, date		Feb. 10, 2023			
Subsequent event | Japanese yen floating rate bank loans					
Subsequent Events					
Aggregate amount of debt issued			$ 700		
Credit facility term			5 years		
Subsequent event | Euro fixed-rate notes					
Subsequent Events					
Aggregate amount of debt issued	$ 4,600				

Subsequent event | Euro fixed-rate notes | Minimum	
Subsequent Events	
Credit facility term	4 years
Coupon rate (as a percent)	3.375%
Subsequent event | Euro fixed-rate notes | Maximum	
Subsequent Events	
Credit facility term	20 years
Coupon rate (as a percent)	4.00%
Subsequent event | Pound sterling fixed-rate notes	
Subsequent Events	
Aggregate amount of debt issued	$ 900
Credit facility term	15 years
Coupon rate (as a percent)	4.875%
Subsequent event | U.S dollar. fixed-rate notes	
Subsequent Events	
Aggregate amount of debt issued	$ 3,250
Subsequent event | U.S dollar. fixed-rate notes | Minimum	
Subsequent Events	
Credit facility term	3 years
Coupon rate (as a percent)	4.50%
Subsequent event | U.S dollar. fixed-rate notes | Maximum	
Subsequent Events	
Credit facility term	30 years
Coupon rate (as a percent)	5.10%

SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS AND RESERVES (Details) - USD ($) $ in Millions	12 Months Ended		
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Allowance for Credit Losses - Current			
Movement in Valuation and Qualifying Accounts and Reserves			
Balance at Beginning of Period	$ 418	$ 503	$ 471
Additions / (Deductions), charged to expense and cost accounts	59	(35)	91
Write-offs	(55)	(46)	(78)
Foreign Currency and Other	45	(4)	19
Balance at End of Period	467	418	503
Allowance for Credit Losses - Noncurrent			
Movement in Valuation and Qualifying Accounts and Reserves			
Balance at Beginning of Period	25	47	56
Additions / (Deductions), charged to expense and cost accounts	6	(21)	4
Write-offs	0	0	0
Foreign Currency and Other	(2)	(2)	(13)
Balance at End of Period	28	25	47
Allowance For Inventory Losses			
Movement in Valuation and Qualifying Accounts and Reserves			
Balance at Beginning of Period	633	514	490
Additions / (Deductions), charged to expense and cost accounts	162	240	135
Write-offs	(148)	(118)	(125)
Foreign Currency and Other	(15)	(3)	15
Balance at End of Period	631	633	514
Revenue Based Provisions			
Movement in Valuation and Qualifying Accounts and Reserves			
Balance at Beginning of Period	435	372	383
Additions / (Deductions), charged to revenue accounts	620	627	689
Write-offs	(629)	(574)	(712)
Foreign Currency and Other	(2)	10	13
Balance at End of Period	$ 424	$ 435	$ 372