

SECURITIES AND EXCHANGE COMMISSION

FORM 424B2

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FILER

**ROYAL BANK OF CANADA**

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Pricing Supplement to the [Prospectus dated January 28, 2011](#) and the  
[Prospectus Supplement dated January 28, 2011](#)



**Royal Bank of Canada**  
**\$7,649,000**  
**Equity Index-Linked Notes Due July 16, 2014**  
**(Linked to the TOPIX® Index)**

**The notes do not bear interest.** The notes are senior unsecured debt securities issued by Royal Bank of Canada, and any payment on the notes is subject to our credit risk. The amount that you will be paid on your notes at maturity (July 16, 2014, subject to adjustment) is based on the performance of the TOPIX® Index (the "index") as measured from the trade date (January 11, 2013) to the valuation date (July 11, 2014, subject to adjustment). **If the index return (defined below) is negative (the final index level is less than the initial index level), you would lose a portion of your investment in the notes and may lose your entire investment, depending on the performance of the index.**

To determine your payment at maturity, we will first calculate the percentage increase or decrease in the final index level (determined on the valuation date, subject to adjustment) from the initial index level (898.69, which was the closing level of the index on the trade date), which we refer to as the index return. The index return may reflect a positive return (based on any increase in the index level over the life of the notes) or a negative return (based on any decrease in the index level over the life of the notes). At maturity, for each \$1,000 principal amount of your notes, you will receive an amount in cash equal to the sum of (1) \$1,000 plus (2) the product of (i) \$1,000 times (ii) the index return. If the final index level is less than the initial index level, this amount will be less than \$1,000.

**The amount you will be paid on your notes at maturity will not be affected by the closing level of the index on any day other than the valuation date. You could lose your entire investment in the notes. A decrease from the initial index level to the final index level will reduce the payment you will receive, if any, at maturity below the principal amount of your notes, potentially to \$0. In addition, the notes do not pay interest, and no other payments on the notes will be made prior to maturity. The notes also will not be listed on any securities exchange.**

**Your investment in the notes involves certain risks. In particular, assuming no changes in market conditions or our creditworthiness and any other relevant factors, the value of the notes on the trade date (as determined by reference to pricing models used by Goldman, Sachs & Co. and taking into account our credit spreads) is, and the price you may receive for the notes may be, significantly less than the price to the public set forth below. See "Risk Factors" beginning on page PS-9 of this pricing supplement to read about certain factors that you should consider.**

**Settlement Date:** January 18, 2013

**Principal Amount:** \$7,649,000

**Price to the Public:** 100% of the principal amount

**Underwriting Discount:** 1.25% of the principal amount

**Net Proceeds to the Issuer:** 98.75% of the principal amount

The principal amount, price to the public, underwriting discount and net proceeds listed above relate to the notes we sell initially. We may decide to sell additional notes after the trade date with a principal amount, price to the public, underwriting discount and net proceeds that differ from the amounts set forth above. The return (whether positive or negative) on your notes will depend in part on the price to the public and the price that you pay for such notes on the applicable settlement date.

**None of the Securities and Exchange Commission, any state securities commission or any other regulatory body has approved or disapproved of the notes or passed upon the accuracy of this pricing supplement. Any representation to the contrary is a criminal offense.**

**The notes will not constitute deposits that are insured by the Canada Deposit Insurance Corporation, the U.S. Federal Deposit Insurance Corporation or any other Canadian or U.S. governmental agency or instrumentality.**

**The copyright of TOPIX and other intellectual property rights related to "TOPIX", "TOPIX Index" and "TOPIX Sector Index" (each, a "TSE Index") belong solely to the Tokyo Stock Exchange (the "TSE"), and is expected to be licensed for use in this offering. The notes are not sponsored, endorsed, sold or promoted by the TSE, and the TSE does not make any representation regarding the advisability of investing in the notes.**

**GOLDMAN, SACHS & CO.**  
Pricing Supplement dated January 11, 2013

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## SUMMARY

This section is meant as a summary and should be read in conjunction with the accompanying prospectus supplement and prospectus to help you understand the notes. This pricing supplement, together with the accompanying prospectus supplement and prospectus, contains the terms of the notes and supersedes all prior or contemporaneous oral statements as well as any other written materials relating to the notes, including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, brochures or other educational materials. In the event of any inconsistency or conflict between the terms set forth in this pricing supplement and the prospectus supplement and prospectus, the terms contained in this pricing supplement will control.

An investment in the notes entails significant risks relating to the notes that are not associated with similar investments in a conventional debt security, including those described below. You should carefully consider, among other things, the matters set forth under “Risk Factors” in this pricing supplement and “Risk Factors” beginning on page 1 of the prospectus supplement and “Risk Factors” beginning on page 1 of the prospectus. We urge you to consult your investment, legal, tax, accounting and other advisors.

Unless otherwise indicated or unless the context requires otherwise, all references in this document to “we,” “us,” “our,” or similar references are to Royal Bank of Canada and all references to “\$” or “dollar” are to United States dollars.

<b>Issuer:</b>	Royal Bank of Canada
<b>Index:</b>	TOPIX® Index (Bloomberg symbol, “TPX” or successor page)
<b>Currency:</b>	The notes are denominated, and amounts due on the notes will be paid, in U.S. dollars (“\$”)
<b>Aggregate Principal Amount:</b>	\$7,649,000
	We may decide to sell additional notes after the trade date at an issue price (and underwriting discount and net proceeds) that differs from the price to the public set forth below.
<b>Denominations:</b>	\$1,000 and integral multiples of \$1,000 in excess thereof. The notes may only be transferred in amounts of \$1,000 and increments of \$1,000 thereafter.
<b>Payment Amount:</b>	At maturity, for each \$1,000 principal amount of the notes, you will receive an amount in cash determined by the calculation agent equal to the <i>sum</i> of: (1) \$1,000 <i>plus</i> (2) the <i>product</i> of (i) \$1,000 <i>times</i> (ii) the index return. <b>If the final index level is less than the initial index level, the payment amount will be less than the principal amount of the notes, and you will lose some or all of the principal amount.</b>
	The payment amount will not be adjusted based on the price to the public, so if the price to the public for your notes represents a premium (or discount) to the principal amount and you hold them to maturity, the return on your notes will be lower (or higher) than it would have been if the price to the public for your notes had been equal to the principal amount. See “Risk Factors—If the Price to the Public for Your Notes Represents a Premium to the Principal Amount, the Return on Your Notes Will Be Lower Than the Return on Notes for Which the Price to the Public Is Equal to the Principal Amount or Represents a Discount to the Principal Amount.”
<b>Initial Index Level:</b>	898.69, which was the closing level of the index on the trade date.



<b>Final Index Level:</b>	The closing level of the index on the valuation date, as determined by the calculation agent in accordance with the terms of this pricing supplement.
<b>Index Return:</b>	$\left( \frac{\text{final index level} - \text{initial index level}}{\text{initial index level}} \right)$ , expressed as a percentage.
<b>Trade Date:</b>	January 11, 2013.
<b>Settlement Date:</b>	January 18, 2013.
<b>Maturity Date:</b>	July 16, 2014, subject to adjustment as described in more detail below under “Description of the Notes—Maturity Date” and “—Market Disruption Events.”
<b>Valuation Date:</b>	July 11, 2014, subject to postponement as described in more detail below under “Description of the Notes—Valuation Date” and “—Market Disruption Events.”
<b>Price to the Public:</b>	100% of the principal amount.
<b>Interest:</b>	The notes do not bear interest.
<b>Business Day:</b>	Any Monday, Tuesday, Wednesday, Thursday or Friday that is neither a legal holiday nor a day on which banking institutions are authorized or required by law to close in the city of New York, New York.
<b>Trading Day:</b>	A trading day with respect to the index means any day on which the respective principal securities market for the stocks included in the index (“index stocks”) are open for trading, the sponsor of the index is open for business, and the closing level of the index is calculated and published by the index sponsor.
<b>No Listing:</b>	The notes will not be listed on any securities exchange.
<b>Calculation Agent:</b>	Goldman, Sachs & Co.
<b>Dealer:</b>	Goldman, Sachs & Co. The underwriting discount set forth on the cover page of this pricing supplement per \$1,000 principal amount is comprised of \$2.50 of underwriting fees and \$10 of selling commission.
<b>U.S. Tax Treatment:</b>	<p>The terms of the notes require a holder and us (in the absence of a change in law or an administrative or judicial ruling to the contrary) to treat the notes for all tax purposes as pre-paid cash-settled derivative contracts in respect of the index. If the notes are so treated, a U.S. holder should generally recognize capital gain or loss upon the sale, exchange or maturity of the notes in an amount equal to the difference between the amount a holder receives at such time and the holder’s tax basis in the notes.</p> <p>Please read carefully the sections entitled “Supplemental Discussion of U.S. Federal Income Tax Consequences” in this pricing supplement, the section “Tax Consequences” in the accompanying prospectus and the section entitled “Certain Income Tax Consequences” in the accompanying prospectus supplement. You should consult your tax advisor about your own tax situation.</p>

**Canadian Tax Treatment:**

For a discussion of certain Canadian federal income tax consequences of investing in the notes, please see the section entitled “Supplemental Discussion of Canadian Federal Income Tax Consequences” below.

**CUSIP:**

78011D823

**ISIN:**

US78011D8231

**FDIC:**

The notes will not constitute deposits that are insured by the Federal Deposit Insurance Corporation, the Canada Deposit Insurance Corporation or any other Canadian or U.S. governmental agency.

## Hypothetical Examples

The following table and chart are provided for purposes of illustration only. They should not be taken as an indication or prediction of future investment results and are intended merely to illustrate the impact that the various hypothetical final index levels on the valuation date could have on the payment amount at maturity assuming all other variables remain constant.

The examples below are based on a range of final index levels that are entirely hypothetical. No one can predict what the index level will be on any day during the life of your notes, and no one can predict the final index level. The index has been highly volatile in the past—meaning that the index level has changed considerably in relatively short periods—and its performance cannot be predicted for any future period.

The information in the following examples reflects hypothetical rates of return on the notes assuming that they are purchased on the original settlement date with a \$1,000 principal amount and are held to maturity. If you sell your notes in any secondary market prior to maturity, your return will depend upon the market value of your notes at the time of sale, which may be affected by a number of factors that are not reflected in the table below, such as interest rates and the volatility of the index. In addition, assuming no changes in market conditions or our creditworthiness and any other relevant factors, the value of your notes on the trade date (as determined by reference to pricing models used by Goldman, Sachs & Co. and taking into account our credit spreads) is, and the price you may receive for your notes may be, significantly less than the principal amount. For more information on the value of your notes in the secondary market, see “Risk Factors—Assuming No Changes in Market Conditions or Any Other Relevant Factors, the Value of the Notes on the Trade Date (as Determined by Reference to Pricing Models Used by the Dealer) Is Significantly Less than the Principal Amount” below. The information in the table also reflects the key terms and assumptions in the box below.

### Key Terms and Assumptions

Principal Amount \$1,000

Neither a market disruption event nor a non-trading day occurs on the originally scheduled valuation date.

No change affecting any of the index stocks or the method by which the index sponsor calculates the index.

Notes are purchased on the original settlement date and held to maturity.

For these reasons, the actual performance of the index over the life of your notes, as well as the amount payable at maturity, if any, may bear little relation to the hypothetical examples shown below or to the historical index levels shown elsewhere in this pricing supplement. For information about the historical levels of the index during recent periods, see “The TOPIX® Index—Historical Performance of the Index” below.

Also, the hypothetical examples shown below do not take into account the effects of applicable taxes. Because of the U.S. tax treatment applicable to your notes, tax liabilities could affect the after-tax rate of return on your notes to a comparatively greater extent than the after-tax return on the index stocks.

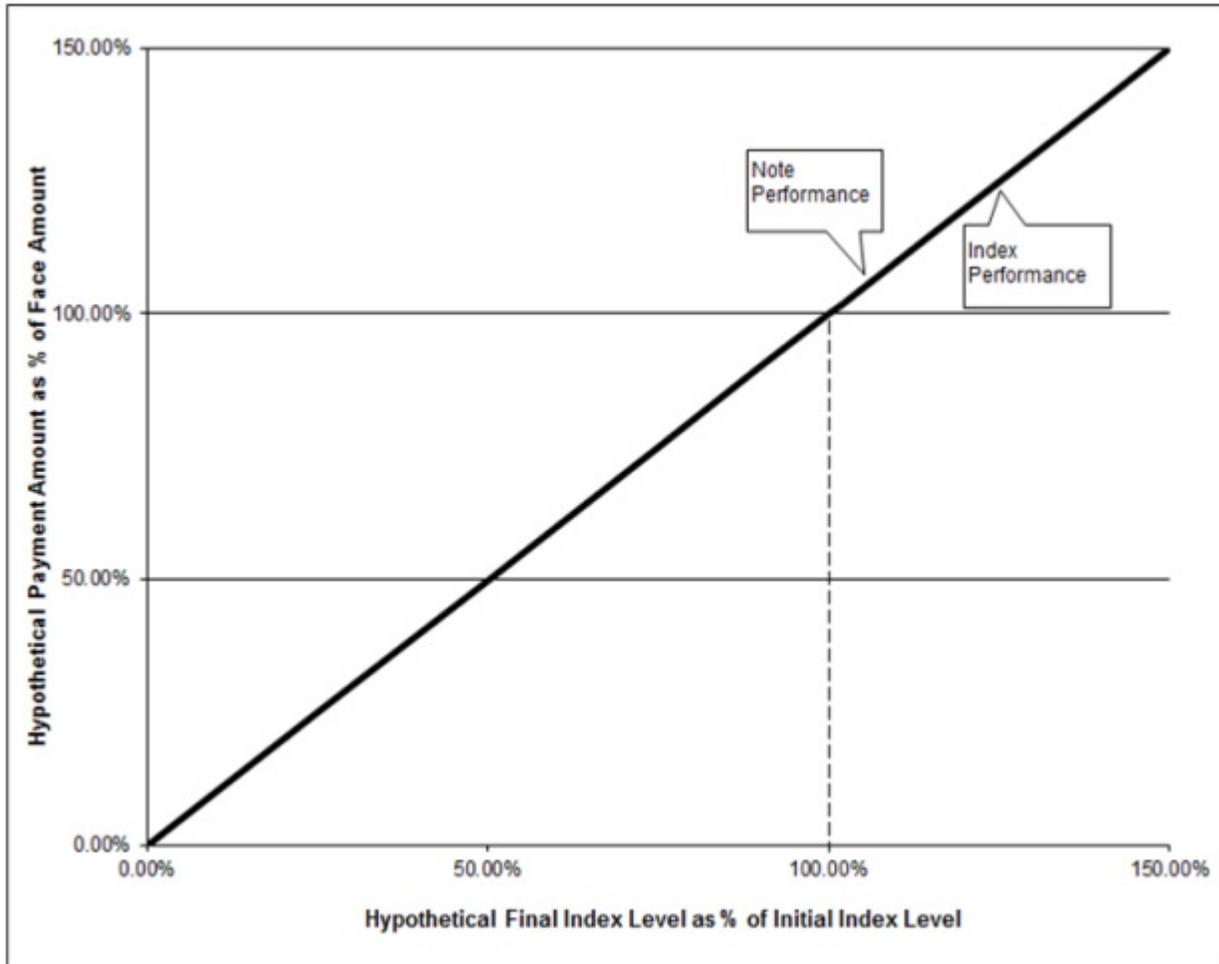
The levels in the left column of the table below represent hypothetical final index levels and are expressed as percentages of the initial index level. The amounts in the right column represent the hypothetical payment amounts, based on the corresponding hypothetical final index level (expressed as a percentage of the initial index level), and are expressed as percentages of the principal amount of a note (rounded to the nearest one hundredth of a percent). Thus, a hypothetical payment amount of 100.00% means that the value of the cash payment that we would deliver for each \$1,000 principal amount of the notes at maturity would equal 100.00% of the principal amount of a note, based on the corresponding hypothetical final index level (expressed as a percentage of the initial index level) and the assumptions noted above.

<b>Hypothetical Final Index Level (as a Percentage of the Initial Index Level)</b>	<b>Hypothetical Payment Amount (as a Percentage of the Principal Amount)</b>
150.00%	150.00%
125.00%	125.00%
110.00%	110.00%
105.00%	105.00%
<b>100.00%</b>	<b>100.00%</b>
75.00%	75.00%
50.00%	50.00%
25.00%	25.00%
<b>0.00%</b>	<b>0.00%</b>

If, for example, the final index level were determined to be 25.00% of the initial index level, the payment amount that we would deliver on your notes at maturity would be 25.00% of the principal amount of your notes, as shown in the hypothetical payment amount column of the table above. As a result, if you purchased your notes on the settlement date and held them to maturity, you would lose 75.00% of your investment.

If the final index level were determined to be 150.00% of the initial index level, the payment amount that we would deliver on your notes at maturity would be 150.00% of the principal amount of your notes, as shown in the hypothetical payment amount column of the table above. As a result, if you purchased your notes on the settlement date and held them to maturity, you would receive a 50.00% return of your investment.

The following chart also illustrates the hypothetical payment amounts (expressed as a percentage of the principal amount of your notes) that we would pay on your notes on the maturity date, if the final index level (expressed as a percentage of the initial index level) were any of the hypothetical levels shown on the horizontal axis. The chart shows that any hypothetical final index level that is less than the initial index level (the section left of the 100.00% marker on the horizontal axis) would result in a hypothetical payment amount of less than 100.00% of the principal amount of your notes (the section below the 100.00% marker on the vertical axis) and, accordingly, in a loss of principal to the holder of the notes. On the other hand, any hypothetical final index level that is greater than the initial index level (the section right of the 100.00% marker on the horizontal axis) would result in a hypothetical payment amount that is greater than 100.00% of the principal amount of your notes (the section above the 100.00% marker on the vertical axis).



No one can predict the final index level. The actual amount that a holder of the notes will receive at maturity and the actual return on your investment in the notes, if any, will depend on the actual final index level, which will be determined by the calculation agent as described below. In addition, the actual return on your notes will further depend on the price to the public. Moreover, the assumptions on which the hypothetical table and chart are based may turn out to be inaccurate. Consequently, the return on your investment in the notes, if any, and the actual payment amount to be paid in respect of the notes at maturity may be very different from the information reflected in the table and chart above.

## RISK FACTORS

*An investment in the notes involves significant risks. Investing in the notes is not equivalent to investing directly in the index. The notes are a riskier investment than ordinary debt securities. You should carefully read the risk factors described in this pricing supplement and the risks described in “Risk Factors” beginning on page 1 of the prospectus supplement and page 1 of the prospectus.*

### **Assuming No Changes in Market Conditions, Our Creditworthiness or Any Other Relevant Factors, the Value of the Notes on the Trade Date (as Determined by Reference to Pricing Models Used by the Dealer) Is Significantly Less than the Principal Amount.**

The price at which Goldman, Sachs & Co. (the “dealer”) would initially buy or sell the notes (if the dealer makes a market) and the value that the dealer will initially use for account statements and otherwise will significantly exceed the value of the notes using such pricing models. The amount of the excess will decline on a straight line basis over the period from the trade date through April 11, 2013, the price at which the dealer would buy or sell the notes will reflect the value determined by reference to the pricing models, plus the dealer’s customary bid and ask spread.

In addition to the factors discussed above, the value or quoted price of the notes at any time will reflect many factors and cannot be predicted. In particular, an increase of the yield spread between our securities and credit risk-free instruments (credit spread) can lead to a decrease in the price of the notes in the secondary market. In addition, even if our creditworthiness does not decline, the value of the notes on the trade date is significantly less than the principal amount, taking into account our credit spreads on that date. If the dealer makes a market in the notes, the price quoted by the dealer would reflect any changes in market conditions and other relevant factors, and the quoted price (and the value of the notes that the dealer will use for account statements or otherwise) could be higher or lower than the price that you paid for them, and may be higher or lower than the value of the notes as determined by reference to pricing models used by the dealer.

If at any time a third party dealer quotes a price to purchase the notes or otherwise values the notes, that price may be significantly different (higher or lower) than any price quoted by the dealer. You should read “The Market Value of the Notes May Be Influenced by Many Unpredictable Factors” below.

Furthermore, if you sell any of the notes, you will likely be charged a commission for secondary market transactions, or the price will likely reflect a dealer discount.

There is no assurance that the dealer, or any other party, will be willing to purchase the notes. In this regard, the dealer is not obligated to make a market in the notes. See “The Notes May Not Have an Active Trading Market” below.

### **You May Lose Your Entire Investment in the Notes.**

The principal amount of your investment is not protected and you may lose a significant amount, or even all, of your investment in the notes. The payment amount, if any, will depend on the performance of the index and the change in the level of the index from the trade date to the valuation date, and you may receive significantly less than the principal amount of the notes. Subject to our credit risk, you will receive at least the principal amount of the notes at maturity only if the final index level is greater than or equal to the initial index level. If the final index level is less than the initial index level, then you will lose 1% of each \$1,000 principal amount of the notes for every 1% that the index return is below 0%. Thus, depending on the final index level, you could lose a substantial portion, and perhaps all, of your investment in the notes, which would include any premium to the principal amount you may have paid when you purchased the notes.

In addition, if the notes are not held until maturity, assuming no changes in market conditions or to our creditworthiness and other relevant factors, the price you may receive for the notes may be significantly less than the price that you paid for them.

**The Notes Do Not Bear Interest.**

You will not receive any interest payments on the notes. Even if the amount payable on the notes at maturity exceeds the principal amount of the notes, the overall return you earn on the notes may be less than you would otherwise have earned by investing in a non-indexed debt security of comparable maturity that bears interest at a prevailing market rate.

**Payment of the Payment Amount Is Subject to Our Credit Risk, and Market Perceptions About Our Creditworthiness May Adversely Affect the Market Value of the Notes.**

The notes are our unsecured debt obligations. Investors are subject to our credit risk, and market perceptions about our creditworthiness may adversely affect the market value of the notes. Any decrease in the market's view on or confidence in our creditworthiness is likely to adversely affect the market value of the notes.

**The Payment Amount Is Not Linked to the Level of the Index at Any Time Other Than the Valuation Date.**

The payment amount will be based on the final index level (subject to adjustments as described below). Therefore, for example, if the closing levels of the index decreased precipitously on the valuation date, the payment amount may be significantly less than it would otherwise have been had the payment amount been linked to the closing levels of the index prior to that decrease. Although the actual level of the index at maturity or at other times during the term of the notes may be higher than the final index level, you will not benefit from the closing levels of the index at any time other than the valuation date.

**The Notes May Not Have an Active Trading Market.**

The notes will not be listed on any securities exchange. The dealer intends to offer to purchase the notes in the secondary market, but is not required to do so. The dealer or any of its affiliates may stop any market-making activities at any time. Even if there is a secondary market, it may not provide enough liquidity to allow you to easily trade or sell the notes. Because other dealers are not likely to make a secondary market for the notes, the price at which you may be able to trade the notes is likely to depend on the price, if any, at which the dealer is willing to buy the notes. We expect that transaction costs in any secondary market would be high. As a result, the difference between bid and asked prices for your notes in any secondary market could be substantial.

If you sell your notes before maturity, you may have to do so at a substantial discount from the price that you paid for them, and as a result, you may suffer substantial losses.

**The Market Value of the Notes May Be Influenced by Many Unpredictable Factors.**

The following factors, among others, many of which are beyond our control, may influence the market value of your notes:

- the level of the index;
- the volatility—i.e., the frequency and magnitude of changes—of the level of the index;
- the dividend rates of the index stocks;
- economic, financial, regulatory, political, military and other events that affect stock markets generally and the index stocks;
- interest and yield rates in the market;
- the time remaining until the notes mature; and
- our creditworthiness, whether actual or perceived, and including actual or anticipated upgrades or downgrades in our credit ratings or changes in other credit measures.

These factors may influence the market value of your notes if you sell your notes before maturity, including the price you may receive for your notes in any market making transaction. If you sell your notes prior to maturity, you may receive less than the principal amount of your notes.

**If the Level or Price of the Index or the Index Stocks Changes, the Market Value of the Notes May Not Change in the Same Manner.**

The notes may trade quite differently from the performance of the index or the index stocks. Changes in the level or price, as applicable, of the index or the index stocks may not result in a comparable change in the market value of the notes. Some of the reasons for this disparity are discussed under “The Market Value of the Notes May Be Influenced by Many Unpredictable Factors” above.

**The Return on the Notes Will Not Reflect Any Dividends Paid on the Index Stocks.**

The index sponsor calculates the levels of the index by reference to the prices of the index stocks without taking account of the value of dividends paid on those index stocks. Therefore, the return on the notes will not reflect the return you would realize if you actually owned the index stocks and received the dividends paid on those index stocks.

**You Have No Shareholder Rights or Rights to Receive Any Stock.**

Investing in the notes will not make you a holder of any of the index stocks. Neither you nor any other holder or owner of the notes will have any voting rights, any right to receive dividends or other distributions or any other rights with respect to those stocks. The notes will be paid in cash to the extent any amount is payable at maturity, and you will have no right to receive delivery of any of the index stocks.

**We Will Not Hold Any of the Index Stocks for Your Benefit, If We Hold Them At All.**

The indenture and the terms governing your notes do not contain any restriction on our ability or the ability of any of our affiliates to sell, pledge or otherwise convey all or any portion of the index stocks that we or they may acquire. Neither we nor our affiliates will pledge or otherwise hold any assets for your benefit, including any of these securities. Consequently, in the event of our bankruptcy, insolvency or liquidation, any of those securities that we own will be subject to the claims of our creditors generally and will not be available for your benefit specifically.

**An Investment in the Notes Is Subject to Risks Associated with Japanese Securities Markets.**

The index tracks the value of certain Japanese equity securities. You should be aware that investments in securities linked to the value of Japanese equity securities involve particular risks. The Japanese securities markets may have less liquidity and may be more volatile than U.S. or other securities markets and market developments may affect Japanese markets differently from U.S. or other securities markets. Direct or indirect government intervention to stabilize the Japanese securities markets, as well as cross-shareholdings in Japanese companies, may affect trading prices and volumes in these markets. Also, there is generally less publicly available information about Japanese companies than about those U.S. companies that are subject to the reporting requirements of the U.S. Securities and Exchange Commission, and Japanese companies are subject to accounting, auditing and financial reporting standards and requirements that differ from those applicable to U.S. reporting companies.

Securities prices in Japan are subject to political, economic, financial and social factors that apply in Japan. These factors, which could negatively affect the Japanese securities markets, include the possibility of recent or future changes in the Japanese government’s economic and fiscal policies, the possible imposition of, or changes in, currency exchange laws or other laws or restrictions applicable to Japanese companies or investments in Japanese equity securities and the possibility of fluctuations in the rate of exchange between the Japanese yen and the U.S. dollar, the possibility of outbreaks of hostility and political instability and the possibility of natural disasters or adverse public health developments in Japan or Asia. Moreover, the Japanese economy may differ favorably or unfavorably from the U.S. economy in important respects such as growth of gross national product, rate of inflation, capital reinvestment, resources and self-sufficiency.

**Your Notes Are Linked to the TOPIX® Index, and Are Therefore Subject to Foreign Currency Exchange Rate Risk.**

Because the payment amount will be calculated based on the index, investors in the notes will be exposed to currency exchange rate risk with respect to the Japanese yen. Although the stocks underlying the index are traded in Japanese yen and your notes are denominated in U.S. dollars, the amount payable on your notes at maturity will not be adjusted for changes in the U.S. dollar foreign currency exchange rates relating to the index stocks. The payment amount on the notes will be based solely upon the overall change in the level of the index during the life of your notes up to the valuation date. Changes in the USD/JPY exchange rate, however, may reflect changes in the Japanese or U.S. economies that, in turn, may affect the final index level.

Foreign currency exchange rates vary over time, and may vary considerably during the life of the notes. Changes in a particular exchange rate result from the interaction of many factors directly or indirectly affecting economic and political conditions.

Of particular importance are:

- existing and expected rates of inflation;
- existing and expected interest rate levels;
- the balance of payments;
- the extent of governmental surpluses or deficits in the U.S. and Japan; and
- other financial, economic, military and political factors.

All of these factors are, in turn, sensitive to the monetary, fiscal and trade policies pursued by the governments of Japan and the United States and other countries important to international trade and finance.

**Hedging Activities by Us and the Dealer May Negatively Impact Investors in the Notes and Cause Our Respective Interests and Those of Our Clients and Counterparties to Be Contrary to Those of Investors in the Notes.**

The dealer or one or more of its affiliates has hedged or expects to hedge its obligations under the hedging transaction that it or its affiliates may enter into with us by purchasing futures and/or other instruments linked to the index. The dealer or one or more of its affiliates also expects to adjust the hedge by, among other things, purchasing or selling any of the foregoing, and perhaps other instruments linked to the index or one or more of the index stocks, at any time and from time to time, and to unwind the hedge by selling any of the foregoing on or before the valuation date.

We, the dealer or one or more of our respective affiliates may also enter into, adjust and unwind hedging transactions relating to other basket- or index-linked notes whose returns are linked to changes in the level or price of the index or the index stocks. Any of these hedging activities may adversely affect the level of the index—directly or indirectly by affecting the price of the index stocks—and therefore the market value of the notes and the amount you will receive, if any, on the notes. In addition, you should expect that these transactions will cause us, the dealer or our respective affiliates, or our respective clients or counterparties, to have economic interests and incentives that do not align with, and that may be directly contrary to, those of an investor in the notes. We, the dealer and our respective affiliates will have no obligation to take, refrain from taking or cease taking any action with respect to these transactions based on the potential effect on an investor in the notes, and may receive substantial returns with respect to these hedging activities while the value of the notes may decline.

**Market Activities by Us and by the Dealer for Our Own Account or for Our Clients Could Negatively Impact Investors in the Notes.**

We, the dealer and our respective affiliates provide a wide range of financial services to a substantial and diversified client base. As such, we each may act as an investor, investment banker, research provider, investment manager, investment advisor, market maker, trader, prime broker or lender. In those and other capacities, we, the dealer and/or our respective affiliates purchase, sell or hold a broad array of investments, actively trade securities (including the notes or other securities that we have issued), the index stocks, derivatives, loans, credit default swaps, indices, baskets and other financial instruments and products for our own accounts or for the accounts of our customers, and we will have other direct or indirect interests, in those securities and in other markets that may be not be consistent with your interests and may adversely affect the level of the index and/or the value of the notes. Any of these financial market activities may, individually or in the aggregate, have an adverse effect on the level of the index and the market value of your notes, and you should expect that our interests and those of the dealer and/or its affiliates, or our respective clients or counterparties, will at times be adverse to those of investors in the notes.

In addition to entering into these transactions itself, we, the dealer and our respective affiliates may structure these transactions for our respective clients or counterparties, or otherwise advise or assist clients or counterparties in entering into these transactions. These activities may be undertaken to achieve a variety of objectives, including: permitting other purchasers of the notes or other securities to hedge their investment in whole or in part; facilitating transactions for other clients or counterparties that may have business objectives or investment strategies that are inconsistent with or contrary to those of investors in the notes; hedging the exposure of us, the dealer or our respective affiliates in connection with the notes, through their market-making activities, as a swap counterparty or otherwise; enabling us, the dealer or our respective affiliates to comply with internal risk limits or otherwise manage firmwide, business unit or product risk; and/or enabling us, the dealer or our respective affiliates to take directional views as to relevant markets on behalf of itself or our respective clients or counterparties that are inconsistent with or contrary to the views and objectives of investors in the notes.

We, the dealer and our respective affiliates regularly offer a wide array of securities, financial instruments and other products into the marketplace, including existing or new products that are similar to the notes or other securities that we may issue, the index stocks or other securities or instruments similar to or linked to the foregoing. Investors in the notes should expect that we, the dealer and our respective affiliates will offer securities, financial instruments, and other products that may compete with the notes for liquidity or otherwise.

**We, the Dealer and Our Respective Affiliates Regularly Provide Services to, or Otherwise Have Business Relationships with, a Broad Client Base, Which Has Included and May Include Us and the Issuers of the Index Stocks.**

We, the dealer and our respective affiliates regularly provide financial advisory, investment advisory and transactional services to a substantial and diversified client base. You should assume that we or they will, at present or in the future, provide such services or otherwise engage in transactions with, among others, us and the issuers of the index stocks, or transact in securities or instruments or with parties that are directly or indirectly related to these entities. These services could include making loans to or equity investments in those companies, providing financial advisory or other investment banking services, or issuing research reports. You should expect that we, the dealer and our respective affiliates, in providing these services, engaging in such transactions, or acting for our own accounts, may take actions that have direct or indirect effects on the notes or other securities that we may issue, the index stocks or other securities or instruments similar to or linked to the foregoing, and that such actions could be adverse to the interests of investors in the notes. In addition, in connection with these activities, certain personnel within us, the dealer or our respective affiliates may have access to confidential material non-public information about these parties that would not be disclosed to investors of the notes.

**Past Index Performance Is No Guide to Future Performance.**

The actual performance of the index over the term of the notes may bear little relation to the historical levels of the index. Likewise, the amount payable at maturity may bear little relationship to the hypothetical return table or chart set forth elsewhere in this pricing supplement. We cannot predict the future performance of the index. Trading activities undertaken by market participants, including certain investors in the notes or their affiliates, including in short positions and derivative positions, may adversely affect the level of the index.

**As the Calculation Agent, Goldman, Sachs & Co. Will Have the Authority to Make Determinations that Could Affect the Amount You Receive, if Any, at Maturity.**

As the calculation agent for the notes, Goldman, Sachs & Co. will have discretion in making various determinations that affect the notes, including determining the final index level, which will be used to determine the payment amount at maturity, and determining whether to postpone the valuation date because of a market disruption event or because that day is not a trading day. The calculation agent also has discretion in making certain adjustments relating to a discontinuation or modification of the index, as described below in the section “Description of the Notes—Unavailability of the Level of the Index on the Valuation Date.” The exercise of this discretion by Goldman, Sachs & Co. could adversely affect the value of the notes and may create a conflict of interest between you and Goldman, Sachs & Co. For a description of market disruption events as well as the consequences of the market disruption events, see the section below entitled “Description of the Notes—Market Disruption Events.” We may change the calculation agent at any time without notice, and Goldman, Sachs & Co. may resign as calculation agent at any time.

**The Policies of the Index Sponsor and Changes that Affect the Index or the Index Stocks Could Affect the Amount Payable on the Notes, if Any, and Their Market Value.**

The policies of the index sponsor concerning the calculation of the levels of the index, additions, deletions or substitutions of the index stocks and the manner in which changes affecting such index stocks or their issuers, such as stock dividends, reorganizations or mergers, are reflected in the level of the index, could affect the levels of the index and, therefore, the amount payable on the notes, if any, at maturity and the market value of the notes prior to maturity. The amount payable on the notes, if any, and their market value could also be affected if the index sponsor changes these policies, for example, by changing the manner in which it calculates the level of the index, or if the index sponsor discontinues or suspends calculation or publication of the level of the index, in which case it may become difficult to determine the market value of the notes. If events such as these occur, the calculation agent will determine the amount payable, if any, at maturity as described herein.

**The Calculation Agent Can Postpone the Valuation Date for the Notes if a Market Disruption Event or a Non-Trading Day with Respect to the Index Occurs.**

If the calculation agent determines that, on a day that would otherwise be the valuation date, a market disruption event with respect to the index has occurred or is continuing or if such date is not a trading day for the index, the valuation date will be postponed until the first following trading day on which no market disruption event occurs or is continuing, although the valuation date will not be postponed by more than three scheduled trading days. Moreover, if the valuation date is postponed to the last possible day, but a market disruption event occurs or is continuing on that day, that day will nevertheless be the valuation date, and the calculation agent will determine the applicable index level that must be used to determine the payment amount.

**There Is No Affiliation Between Any Index Stock Issuers or the Index Sponsor and Us or the Dealer, and Neither We Nor the Dealer Is Responsible for Any Disclosure by Any of the Index Stock Issuers or the Index Sponsor.**

We are not affiliated with the issuers of the index stocks or with the index sponsor. However, as discussed herein, we, the dealer, and our or its respective affiliates may currently, or from time to time in the future, engage in business with the issuers of the index stocks. Nevertheless, none of us, the dealer, or our or its respective affiliates assumes any responsibility for the accuracy or the completeness of any information about the index or any of the index stocks. You, as an investor in the notes, should make your own investigation into the index and the index stocks. See the section below entitled “The TOPIX® Index” for additional information about the index.

Neither the index sponsor nor any issuers of the index stocks are involved in this offering of the notes in any way, and none of them have any obligation of any sort with respect to the notes. Thus, neither the index sponsor nor any of the issuers of the index stocks have any obligation to take your interests into consideration for any reason, including in taking any corporate actions that might affect the value of the notes.

**You Must Rely on Your Own Evaluation of the Merits of an Investment Linked to the Index.**

In the ordinary course of business, we, the dealer, our affiliates and the dealer’s affiliates, including in acting as a research provider, investment advisor, market maker or principal investor, may express research or investment views on expected movements in the index or the index stocks, and may do so in the future. These views or reports may be communicated to our clients and clients of our respective affiliates, and may be inconsistent with, or adverse to, the objectives of investors in the notes. However, these views are subject to change from time to time. Moreover, other professionals who transact business in markets relating to the index or the index

stocks may at any time have significantly different views from those of these entities. For these reasons, you are encouraged to derive information concerning the index or the index stocks from multiple sources, and you should not rely solely on views expressed by us, the dealer, or our or its affiliates.

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**We May Sell an Additional Aggregate Amount of the Notes at a Different Price to the Public.**

At our sole option, we may decide to sell an additional aggregate amount of the notes subsequent to the trade date. The price of the notes in the subsequent sale may differ substantially (higher or lower) from the principal amount.

**If the Price to the Public for Your Notes Represents a Premium to the Principal Amount, the Return on Your Notes Will Be Lower Than the Return on Notes for Which the Price to the Public Is Equal to the Principal Amount or Represents a Discount to the Principal Amount.**

The payment amount will not be adjusted based on the price to the public. If the price to the public for your notes differs from the principal amount, the return on your notes held to maturity will differ from, and may be substantially less than, the return on notes for which the price to the public is equal to the principal amount. If the price to the public for your notes represents a premium to the principal amount and you hold them to maturity, the return on your notes will be lower than the return on notes for which the price to the public is equal to the principal amount or represents a discount to the principal amount.

**The Notes Are a Speculative Investment.**

The notes are speculative in nature and involve a high degree of risk. The notes are financial instruments that are suitable only for sophisticated investors who are able to bear the loss of all of their principal investment. Accordingly, you should consult your own financial and legal advisors as to the risks entailed by an investment in the notes and the suitability of the notes in light of your particular circumstances.

**Significant Aspects of the Tax Treatment of the Notes Are Uncertain.**

The tax treatment of the notes is uncertain. We do not plan to request a ruling from the Internal Revenue Service regarding the tax treatment of the notes, and the Internal Revenue Service or a court may not agree with the tax treatment described in this pricing supplement.

The Internal Revenue Service has issued a notice indicating that it and the U.S. Treasury Department are actively considering whether, among other issues, a holder should be required to accrue interest over the term of an instrument such as the notes even though that holder will not receive any payments with respect to the notes until maturity or earlier sale or exchange and whether all or part of the gain a holder may recognize upon sale, exchange or maturity of an instrument such as the notes could be treated as ordinary income. The outcome of this process is uncertain and could apply on a retroactive basis.

Please read carefully the section entitled “Supplemental Discussion of U.S. Federal Income Tax Consequences” in this pricing supplement, the section “Tax Consequences” in the accompanying prospectus and the section entitled “Certain Income Tax Consequences” in the accompanying prospectus supplement. You should consult your tax advisor about your own tax situation.

**Foreign Account Tax Compliance Act Withholding May Apply to Payments Made on the Notes.**

The Foreign Account Tax Compliance Act (“FATCA”), enacted on March 18, 2010, will impose a 30% U.S. withholding tax on certain U.S. source payments of interest (and OID), dividends, or other fixed or determinable annual or periodical gain, profits, and income, and on the gross proceeds from a disposition of property (including payments at maturity, or upon a redemption or sale) of a type which can produce U.S. source interest or dividends (“withholdable payments”). Such withholding applies to amounts paid to a foreign financial institution (including amounts paid to a foreign financial institution on your behalf) unless that foreign financial institution enters into an agreement with the U.S. Treasury to satisfy the due diligence, reporting, withholding and other requirements imposed by the legislation or otherwise complies with FATCA. The legislation also generally imposes a withholding tax of 30% on withholdable payments made to a non-financial foreign entity, unless that entity provides the withholding agent with a certification that it does not have any substantial U.S. owners or a certification identifying the direct and indirect substantial U.S. owners of the entity. The payments you receive on the notes could be subject to FATCA withholding if that payment is made (at any point in the series of payments made on your notes) to a paying/fiscal agent, clearing system, bank, custodian, broker or other payee financial institution which is not FATCA compliant. You should consult your bank or broker about the possibility that payments made to it on your behalf will become subject to withholding at some point in the funds flow chain.

These withholding and reporting requirements will generally apply to U.S. source periodic payments made after December 31, 2013 and to payments of gross proceeds from a sale or redemption made after December 31, 2016.

We will not pay additional amounts with respect to any FATCA withholding. Therefore, if such withholding applies, any payments on the notes will be significantly less than what you would have otherwise received. Depending on your circumstances, these amounts withheld may be creditable or refundable to you. You are urged to consult with your own tax advisor regarding the possible implications of FATCA on your investment in the notes.

**Non-U.S. Investors May Be Subject to Certain Additional Risks.**

The notes will be denominated in U.S. dollars. If you are a non-U.S. investor who purchases the notes with a currency other than U.S. dollars, changes in rates of exchange may have an adverse effect on the value, price or returns of your investment.

This pricing supplement contains a general description of certain U.S. tax considerations relating to the notes. If you are a non-U.S. investor, you should consult your tax advisors as to the consequences, under the tax laws of the country where you are resident for tax purposes, of acquiring, holding and disposing of the notes and receiving the payments that might be due under the notes.

This pricing supplement also contains a general description of certain Canadian tax considerations relating to the notes. If you are not a Non-resident Holder (as that term is defined in “Tax Consequences – Canadian Taxation” in the accompanying prospectus) or if you acquire the notes in the secondary market, you should consult your tax advisor as to the consequences of acquiring, holding and disposing of the notes and receiving the payments that might be due under the notes.

**Certain Considerations for Insurance Companies and Employee Benefit Plans.**

Any insurance company or fiduciary of a pension plan or other employee benefit plan that is subject to the prohibited transaction rules of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), or the Internal Revenue Code of 1986, as amended, including an IRA or a Keogh plan (or a governmental plan to which similar prohibitions apply), and that is considering purchasing the notes with the assets of the insurance company or the assets of such a plan, should consult with its counsel regarding whether the purchase or holding of the notes could become a “prohibited transaction” under ERISA, the Internal Revenue Code or any substantially similar prohibition in light of the representations a purchaser or holder in any of the above categories is deemed to make by purchasing and holding the notes. This is discussed in more detail under “Employee Retirement Income Security Act” below.

## DESCRIPTION OF THE NOTES

*In addition to the terms described in the “Summary” section above, the following general terms will apply to the notes.*

### General

The notes are part of a series of medium-term notes entitled “Senior Global Medium-Term Notes, Series E” that we may issue under our senior indenture, dated as of October 23, 2003, as it has been and may be amended from time to time, between Royal Bank of Canada and The Bank of New York Mellon, as successor to the corporate trust business of JPMorgan Chase Bank, N.A., as trustee. The indenture is described more fully in “Description of Debt Securities” in the accompanying prospectus and prospectus supplement. The following description of the notes supplements the description of the general terms and provisions of the notes and debt securities set forth under the headings “Description of the Notes We May Offer” in the prospectus supplement and “Description of Debt Securities” in the prospectus.

The notes are issued in denominations of \$1,000, and integral multiples of \$1,000 in excess thereof. The notes may only be transferred in amounts of \$1,000 and increments of \$1,000 thereafter. The notes will mature on July 16, 2014, subject to adjustment, as set forth below under the caption “—Maturity Date.”

We will not pay interest on the notes.

### Currency

The notes are denominated, and amounts due on the notes will be paid, in U.S. dollars (“\$”).

### Form of the Notes

The notes will be issued only in the form of a global master security held by The Depository Trust Company (“DTC”).

### No Listing

The notes will not be listed on any securities exchange.

### Defeasance, Default Amount, Other Terms

Neither full defeasance nor covenant defeasance will apply to your notes. The following terms will apply to your notes:

- the default amount will be payable on any acceleration of the maturity of your notes as described under “—Default Amount on Acceleration” below;
- a business day for your notes will have the meaning described under “—Special Calculation Provisions—Business Day” below; and
- a trading day for your notes will have the meaning described under “—Special Calculation Provisions—Trading Day” below.

Please note that the information about the issuance, settlement date, price to the public, discounts or commissions and net proceeds to Royal Bank of Canada relates only to the initial issuance and sale of your notes. If you have purchased your notes in a market-making transaction after the initial issuance and sale, any such relevant information about the sale to you will be provided in a separate confirmation of sale.

### Payment Amount

At maturity, subject to our credit risk as issuer of the notes, we will pay you an amount in cash equal to the payment amount. To determine the payment amount, we will first calculate the percentage increase or decrease in the index, which we refer to as the “index return.”



The index return will be determined as follows:

$$\left( \frac{\text{final index level} - \text{initial index level}}{\text{initial index level}} \right), \text{ expressed as a percentage.}$$

The initial index level is 898.69, which was the closing level of the index on the trade date.

The final index level will be the closing level of the index on the valuation date, as determined by the calculation agent. The closing level of the index will be the official closing level of the index published by the index sponsor at the regular weekday close of trading on the relevant exchanges for the index.

For each \$1,000 principal amount of the notes, the payment amount at maturity will be equal to the *sum* of: (1) \$1,000 *plus* (2) the *product* of (i) \$1,000 *times* (ii) the index return. **If the final index level is less than the initial index level, the payment amount will be less than the principal amount of the notes, and you will lose some or all of the principal amount.**

### **Maturity Date**

The maturity date is July 16, 2014. The maturity date may be postponed under the circumstances described under “—Valuation Date” and “—Market Disruption Events.”

### **Valuation Date**

The valuation date is July 11, 2014, subject to postponement (i) for up to three trading days if on such date a market disruption event occurs with respect to the index, as described in more detail below under “—Market Disruption Events” and (ii) if that date is not a trading day, to the next trading day immediately following the originally scheduled valuation date. If the valuation date is so postponed, the maturity date will be postponed by the same number of trading days.

### **Unavailability of the Level of the Index on the Valuation Date**

If the index sponsor discontinues publication of the index and the index sponsor or another entity publishes a successor or substitute index that the calculation agent determines, in its sole discretion, to be comparable to the discontinued index (such successor or substitute index being referred to in this section as a “successor index”), then any subsequent index closing level will be determined by reference to the published level of that successor index at the regular weekday close of trading on the applicable valuation date.

Upon any selection by the calculation agent of a successor index, the calculation agent will provide written notice to the trustee of the selection, and the trustee will furnish written notice, to the extent the trustee is required to under the senior debt indenture, to the depositary, as holder of the master global security.

If a successor index is selected by the calculation agent, that successor index will be used as a substitute for the index for all purposes, including for purposes of determining whether a market disruption event exists with respect to that index.

If the index sponsor discontinues publication of the index prior to, and that discontinuance is continuing on, the valuation date and the calculation agent determines, in its sole discretion, that no successor index is available at that time, then the calculation agent will determine the level of the index for the valuation date in accordance with the formula for and method of calculating the index last in effect prior to the discontinuance, without rebalancing or substitution, using the closing level (or, if trading in the index stocks have been materially suspended or materially limited, its good faith estimate of the closing level that would have prevailed but for that suspension or limitation) at the close of the principal trading session of the relevant exchange on that date of each index stock. Notwithstanding these alternative arrangements, discontinuance of the publication of the index may adversely affect the value of your notes.

If at any time the method of calculating a closing level for the index or a successor index is changed in a material respect, or if the index is in any other way modified so that the index does not, in the opinion of the calculation agent, fairly represent the level of the index had those changes or modifications not been made, then, from and after that time, the calculation agent will, at the close of business in New York City on the valuation date, make such calculations and adjustments as, in the good faith judgment of the calculation agent, may be necessary in order to arrive at a level of an index comparable to that index as if those changes or modifications had not been made. Accordingly, if the method of calculating the index is modified so that the value of that index is a fraction of what it would have been if it had not been modified (e.g., due to a split in the index), then the calculation agent will adjust the index in order to arrive at a value of that index as if it had not been modified (e.g., as if such split had not occurred).

Notwithstanding these alternative arrangements, discontinuance of the publication of the index may adversely affect the value of your notes.

## **Market Disruption Events**

If a market disruption event occurs or is continuing on the valuation date, the final index level will equal the closing level of the index on the first trading day following the valuation date on which the calculation agent determines that a market disruption event is not continuing. If a market disruption event occurs or is continuing on each trading day to and including the third trading day following the valuation date, the final index level will be determined (or, if not determinable, estimated by the calculation agent in a manner which is considered commercially reasonable under the circumstances) by the calculation agent on that third trading day, regardless of the occurrence or continuation of a market disruption event on that day. In such an event, the calculation agent will make a good faith estimate in its sole discretion of the final index level that would have prevailed in the absence of the market disruption event. If the valuation date is postponed in this manner, the maturity date of the notes will be postponed by the same number of business day(s) from but excluding the originally scheduled valuation date to and including the postponed valuation date.

Any of the following will be a market disruption event with respect to the index:

- a suspension, absence or material limitation of trading in index stocks constituting 20% or more, by weight, of the index on their primary market, in each case for more than two consecutive hours of trading or during the one-half hour before the close of trading in that market, as determined by the calculation agent in its sole discretion, or
- a suspension, absence or material limitation of trading in option or futures contracts relating to the index or to index stocks constituting 20% or more, by weight, of the index, if available, in the respective primary markets for those contracts, in each case for more than two consecutive hours of trading or during the one-half hour before the close of trading in that market, as determined by the calculation agent in its sole discretion, or
- index stocks constituting 20% or more, by weight, of the index, or option or futures contracts relating to the index, or to index stocks constituting 20% or more, by weight, of the index, if available, do not trade on what were the respective primary markets for those index stocks or contracts, as determined by the calculation agent in its sole discretion,

and, in the case of any of these events, the calculation agent determines in its sole discretion that the event could materially interfere with the ability of Royal Bank of Canada or any of its affiliates or a similarly situated party to unwind all or a material portion of a hedge that could be effected with respect to the notes. For more information about hedging by Royal Bank of Canada and/or any of its affiliates, see “Use of Proceeds and Hedging” below.

The following events will not be market disruption events with respect to the index:

- a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market, and
- a decision to permanently discontinue trading in the option or futures contracts relating to the index or to any index stock.

For this purpose, an “absence of trading” in the primary securities market on which an index stock, or on which option or futures contracts relating to the index or to any index stock are traded will not include any time when that market is itself closed for trading under ordinary circumstances. In contrast, a suspension or limitation of trading in an index stock or in option or futures contracts relating to the index or to any index stock, if available, in the primary market for that stock or those contracts, by reason of:

- a price change exceeding limits set by that market, or
- an imbalance of orders relating to that index stock or those contracts, or
- a disparity in bid and ask quotes relating to that index stock or those contracts,

will constitute a suspension or material limitation of trading in that stock or those contracts in that market.

### **Payment of Additional Amounts**

We will pay any amounts to be paid by us on the notes without deduction or withholding for, or on account of, any and all present or future income, stamp and other taxes, levies, imposts, duties, charges, fees, deductions or withholdings (“taxes”) now or hereafter imposed, levied, collected, withheld or assessed by or on behalf of Canada or any Canadian political subdivision or authority that has the power to tax, unless the deduction or withholding is required by law or by the interpretation or administration thereof by the relevant governmental authority. At any time a Canadian taxing jurisdiction requires us to deduct or withhold for or on account of taxes from any payment made under or in respect of the notes, we will pay such additional amounts (“additional amounts”) as may be necessary so that the net amounts received by each holder (including additional amounts), after such deduction or withholding, shall not be less than the amount the holder would have received had no such deduction or withholding been required.

However, no additional amounts will be payable with respect to a payment made to a holder of the notes, which we refer to as an “excluded holder,” in respect of a beneficial owner:

- (i) with which we do not deal at arm’s length (within the meaning of the Income Tax Act (Canada)) at the time of making such payment;
- (ii) which is subject to such taxes by reason of its being connected presently or formerly with Canada or any province or territory thereof otherwise than by reason of the holder’s activity in connection with purchasing the notes, the holding of notes or the receipt of payments thereunder;
- (iii) which presents such note for payment (where presentation is required) more than 30 days after the relevant date (except to the extent that the holder thereof would have been entitled to such additional amounts on presenting a note for payment on the last day of such 30 day period); for this purpose, the “relevant date” in relation to any payments on any note means:
  - (a) the due date for payment thereof, or
  - (b) if the full amount of the monies payable on such date has not been received by the trustee on or prior to such due date, the date on which the full amount of such monies has been received and notice to that effect is given to holders of the notes in accordance with the indenture; or
- (iv) who could lawfully avoid (but has not so avoided) such withholding or deduction by complying, or procuring that any third party comply with, any statutory requirements or by making, or procuring that any third party make, a declaration of non-residence or other similar claim for exemption to any relevant tax authority.

For the avoidance of doubt, we will not have any obligation to pay any holders additional amounts on any tax which is payable otherwise than by deduction or withholding from payments made under or in respect of the notes at maturity.

We will also make such withholding or deduction and remit the full amount deducted or withheld to the relevant authority in accordance with applicable law. We will furnish to the trustee, within 30 days after the date the payment of any taxes is due pursuant to applicable law, certified copies of tax receipts evidencing that such payment has been made or other evidence of such payment satisfactory to the trustee. We will indemnify and hold harmless each holder of notes (other than an excluded holder) and upon written request reimburse each such holder for the amount of (x) any taxes so levied or imposed and paid by such holder as a result of payments

made under or with respect to the notes, and (y) any taxes levied or imposed and paid by such holder with respect to any reimbursement under (x) above, but excluding any such taxes on such holder's net income or capital.

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For additional information, see the section entitled “Supplemental Discussion of Canadian Federal Income Tax Consequences” below.

### **Default Amount on Acceleration**

In case an event of default with respect to the notes shall have occurred and be continuing, the amount declared due and payable on the notes upon any acceleration of the notes will be determined by the calculation agent and will be an amount in cash equal to the amount payable as described under the caption “—Payment at Maturity,” calculated as if the date of acceleration were the valuation date.

If the maturity of the notes is accelerated because of an event of default, we will, or will cause the calculation agent to, provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, and to DTC, of the cash amount due with respect to the notes as promptly as possible and in no event later than two business days after the date of acceleration.

### **Manner of Payment and Delivery**

Any payment on the notes at maturity or otherwise will be made to accounts designated by you and approved by us, or at the office of the trustee in New York City. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

### **Role of Calculation Agent**

The calculation agent will make all determinations regarding the level of the index, business days, trading days, market disruption events, the default amount, and the amount payable on your notes. Absent manifest error, all determinations of the calculation agent will be final and binding on you and us, without any liability on the part of the calculation agent. You will not be entitled to any compensation from us for any loss suffered as a result of any of the above determinations or confirmations by the calculation agent.

We have appointed Goldman, Sachs & Co. as the calculation agent for the notes. We may change the calculation agent for your notes and the calculation agent may resign as calculation agent.

### **Special Calculation Provisions**

#### **Business Day**

When we refer to a business day with respect to your notes, we mean any Monday, Tuesday, Wednesday, Thursday or Friday that is neither a legal holiday nor a day on which banking institutions are authorized or required by law to close in the city of New York, New York.

#### **Trading Day**

When we refer to a trading day with respect to the index, we mean a day on which (i) the principal securities market for the index stocks that underlie the index are open for trading, (ii) the index sponsor for the index is open for business and (iii) the index is calculated and published by the index sponsor. Although the index sponsor may publish an index level with respect to the index on a day when one or more of the principal securities market for the index stocks for the index are closed, that day would not be a trading day for purposes of the index.

## **Terms Incorporated in the Master Note**

All of the terms appearing above and including the item captioned “Calculation Agent” and the term captioned “U.S. Tax Treatment” in the “Summary” section on pages PS-3 to PS-5 of this pricing supplement, the terms appearing in the first paragraph under the caption “—Defeasance, Default Amount, Other Terms,” the terms in the first five paragraphs under the caption “—Unavailability of the Level of the Index on the Valuation Date,” the terms appearing in the first four paragraphs under the caption “—Payment of Additional Amounts,” the terms appearing under the captions “—Market Disruption Events” and “—Default Amounts on Acceleration” above and the applicable terms included in the Series E MTN prospectus supplement, dated January 28, 2011 and the prospectus, dated January 28, 2011 are incorporated into the master global security that represent the notes and is held by The Depository Trust Company.

## USE OF PROCEEDS AND HEDGING

We will use the net proceeds we receive from the sale of the notes for the purposes we describe in the attached prospectus supplement under “Use of Proceeds.” We or our affiliates may also use those proceeds in transactions intended to hedge our obligations under the notes as described below.

In anticipation of the sale of the notes, we, the dealer, and one or more of our affiliates and the affiliates of the dealer have hedged or expect to enter into hedging transactions involving purchases of securities included in or linked to the index and/or listed and/or over-the-counter derivative instruments linked to the index prior to or on the trade date. From time to time, we or they may enter into additional hedging transactions or unwind those we have entered into. In this regard, we or they may:

- acquire or dispose of the index stocks;
- acquire or dispose of long or short positions in listed or over-the-counter derivative instruments based on the level of the index or the index stocks; or
- any combination of the above two.

We, the dealer, and one or more of our affiliates and the affiliates of the dealer may acquire a long or short position in securities similar to the notes from time to time and may, in our or their sole discretion, hold or resell those similar securities.

We, the dealer, and one or more of our affiliates and the affiliates of the dealer may close out our or their hedge on or before the valuation date. That step may involve sales or purchases of the index stocks or over-the-counter derivative instruments linked to the index or the index stocks.

*The hedging activity discussed above may adversely affect the market value of the notes from time to time. See “Risk Factors—Hedging Activities by Us and the Dealer May Negatively Impact Investors in the Notes and Cause Our Respective Interests and Those of Our Clients and Counterparties to Be Contrary to Those of Investors in the Notes,” “—Market Activities by Us and by the Dealer for Our Own Account or for Our Clients Could Negatively Impact Investors in the Notes,” and “—We, the Dealer and Our Respective Affiliates Regularly Provide Services to, or Otherwise Have Business Relationships with, a Broad Client Base, Which Has Included and May Include Us and the Issuers of the Index Stocks” in this pricing supplement for a discussion of these adverse effects.*

## THE TOPIX® INDEX

### General

We have derived all information regarding the TOPIX® Index contained in this pricing supplement, including, its make-up, method of calculation and changes in its components, from publicly available information. The index, also known as the Tokyo Stock Price Index, is a capitalization weighted index of all the domestic common stocks listed on the First Section of the TSE. Domestic stocks admitted to the TSE are assigned either to the TSE First Section Index, the TSE Second Section Index or the TSE Mothers Index. Stocks listed in the First Section, which number approximately 1,700, are among the most actively traded stocks on the TSE. The index is supplemented by the sub-basket components of the 33 industry sectors and was developed with a base index value of 100 as of January 4, 1968. The index is calculated and published by TSE. Additional information about the index is available on the following website: <http://www.tse.or.jp/english/market/topix/index.html>. We are not incorporating by reference the website or any material it includes in this pricing supplement.

*Composition and Maintenance.* The index is composed of all domestic common stocks listed on the TSE First Section, excluding temporary issues and preferred stocks. Companies scheduled to be delisted or newly listed companies that are still in the waiting period are excluded from the index. The index has no constituent review. The number of constituents will change according to new listings and delistings.

### Index Stock Weighting by Sector as of January 4, 2013

	Percentage (%)*
Air Transportation	0.56%
Banks	10.46%
Chemicals	5.70%
Construction	2.67%
Electric Appliances	12.15%
Electric Power and Gas	2.50%
Fishery, Agriculture and Forestry	0.08%
Foods	3.76%
Glass and Ceramics Products	1.00%
Information and Communication	5.83%
Insurance	2.54%
Iron and Steel	1.72%
Land Transportation	3.98%
Machinery	5.23%
Marine Transportation	0.31%
Metal Products	0.70%
Mining	0.58%
Nonferrous Metals	1.11%
Oil and Coal Products	0.76%
Other Financing Business	1.03%
Other Products	1.34%
Pharmaceutical	4.77%
Precision Instruments	1.40%
Pulp and Paper	0.29%
Real Estate	3.34%
Retail Trade	4.03%
Rubber Products	0.85%
Securities and Commodities Futures	1.57%
Services	1.99%
Textiles and Apparels	0.84%
Transportation Equipment	11.43%
Warehousing and Harbor Transportation Service	0.24%
Wholesale Trade	5.22%

\* Sector designations are determined by the index sponsor using criteria it has selected or developed. Index sponsors may use very different standards for determining sector designations. In addition, many companies operate in a number of sectors, but are listed in only one sector and the basis on which that sector is selected may also differ. As a result, sector comparisons between indices with different index sponsors may reflect differences in methodology as well as actual differences in the sector composition of the indices.

\*\* Information provided by the TSE. Percentages may not sum to 100% due to rounding.

*Index Calculation.* The index is a free-float adjusted market capitalization-weighted index, which reflects movements in the market capitalization from a base market value of 100 set on the base date of January 4, 1968. The TSE calculates the index by multiplying the base point of 100 by the figure obtained from dividing the current free float adjusted market value by the base market value. The resulting value is not expressed in Japanese yen but presented in terms of points rounded to the nearest one hundredth. The formula for calculating the index value can be expressed as follows:

$$\text{Index value} = \text{Base point of 100} \times \frac{\text{Current free float adjusted market value}}{\text{Base market value}}$$

The current free float adjusted market value is the sum of the product of the price and the number of free float adjusted shares for index calculation of each component stock.

The number of free float adjusted shares for index calculation is the number of listed shares multiplied by free-float weight. The number of listed shares for index calculation is determined by the TSE. The number of listed shares for index calculation normally coincides with that of listed shares. However, in some cases these numbers differ. For instance, in the case of a stock split, while the number of listed shares increases at the additional listing date which comes after such stock split becomes effective, the number of listed shares for index calculation increases at the ex-rights date.

Free-float weight is a weight of listed shares deemed to be available for trading in the market and is determined and calculated by the TSE for each listed company for index calculation. The free-float weight of one company may be different from that of any other company. Free-float weight is reviewed once a year in order to reflect the latest distribution of share ownership. The timing of the yearly free-float weight review is different according to the settlement terms of listed companies. In addition to the yearly review, extraordinary reviews are conducted in the following cases: allocation of new shares to a third party, strategic exercise of preferred shares or equity warrants, company spin-off, merger, stock-swap, take-over bid and other events that the TSE judges as appropriate reasons to review.

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In the event of any increase or decrease in the current free-float adjusted market value due to reasons other than fluctuations in the TSE, such as public offerings or changes in the number of constituents in the TSE First Section, necessary adjustments are made by the TSE to the base market value in order to maintain the continuity of the index. The TSE makes adjustments as follows:

	<b>Event</b>	<b>Implementation of Adjustment (After Close of Trading)</b>	<b>Price Used for Adjustments</b>
Addition	Company to be listed on the TSE First Section by initial public offering or via another stock exchange	One business day before the last business day of the next month of listing	Price on the adjustment date
Addition	Parent company established through stock-swap or similar transaction (including merger through establishing new company and company spin-off) to be promptly listed on the TSE First Section after the de-listing of the stocks in the index (the company will be included not in the index, but in the new series index to which the de-listed company with the highest liquidity and the largest free-float adjusted market capitalization belonged)	One business day before the listing or one business day after the listing if the business day before is a holiday	Base price used to decide the daily price limit
Addition	Transfer to the TSE First Section from the Second Section	One business day before the last business day of the next month of transfer (a free float weight of 0.00 is used from the transfer date to the adjustment date and thus the number of shares to be used for calculation will be 0.00 during such period)	Price on the adjustment date
Addition	Transfer to the TSE First Section from Mothers	One business day before the last business day of the next month of transfer (a free float weight of 0.00 is used from the transfer date to the adjustment date and thus the number of shares to be used for calculation will be 0.00 during such period)	Price on the adjustment date
Deletion	Company to be de-listed due to a stock-swap and the like while newly established companies promptly list its shares	Initial listing day of newly established company (Normally it is two business days after de-listing)	Price on business day before the de-listing date (the price used for adjustments is frozen after close of trading one business day before delisting, to the exclusion date for index calculation purpose)
Deletion	Company to be de-listed due to other reason than described above (merger or stock-swap, with other surviving company included in the index)	One business day before delisting	Price on business day before the adjustment date
Deletion	Transfer to the TSE Second Section from the TSE First Section	One business day before transfer	Price on business day before the adjustment date
Deletion	Designation of securities to be delisted	Three business days after the designation of securities to be delisted (one business day after designation if the day of designation is a holiday)	Price on business day before the adjustment date

If trading in a certain constituent is suspended, the TSE regards it as having no change in its share price for purposes of calculating the index. In the event of unforeseen circumstances, or if the TSE decides it is impossible to use its existing methods to calculate the index, the TSE may use an alternate method of index calculation as it deems valid.

**Historical Performance of the Index**

The closing levels of the index have fluctuated in the past and may experience significant fluctuations in the future. Any historical upward or downward trend in the closing levels of the index during any period shown below is not an indication that the index is more or less likely to increase or decrease at any time during the term of the notes.

During the period from January 4, 2008 through January 11, 2013, there were 861 18-month periods, the first of which began on January 4, 2008 and the last of which ended on January 11, 2013. In 677 of these periods, the closing level of the index on the final date of such period had decreased to a level less than 100% of its level on the initial date of the period. Therefore, during approximately 78.63% of such 18-month periods, if you had owned securities with terms similar to the notes, you may have received less than the principal amount of such securities at maturity. (We calculated these figures using fixed 18-month periods, and did not take into account holidays or non-business days.) See the section entitled “Risk Factors—Past Index Performance Is No Guide to Future Performance” above.

The historical levels of the index are provided for informational purposes only. You should not take the historical levels of the index as an indication of its future performance. We cannot give you any assurance that the future performance of the index or the index stocks will result in your receiving an amount greater than the principal amount of the notes at maturity. None of us, Goldman, Sachs & Co., or our respective affiliates makes any representation to you as to the performance of the index. Moreover, in light of current market conditions, the trends reflected in the historical performance of the index may be less likely to be indicative of the performance of the index over the term of the notes than would otherwise have been the case. The actual performance of the index over the term of the notes, as well as the amount payable at maturity, may bear little relation to the historical levels shown below.

The following table sets forth the high and low closing and period-end levels of the index, as reported by Bloomberg, for each of the four calendar quarters in 2010, 2011 and 2012, and the first calendar quarter of 2013 (through January 11, 2013). We obtained the closing levels of the index listed in the table below from Bloomberg Financial Services, without independent verification.

The historical levels of the index are provided for informational purposes only. You should not take the historical levels of the index as an indication of future performance, which may be better or worse than the levels set forth below.

**Quarterly High, Low and Closing Levels of the TOPIX® Index**

	<u>High</u>	<u>Low</u>	<u>Last</u>
<b>2010</b>			
Quarter ended March 31	979.58	881.57	978.81
Quarter ended June 30	998.90	841.42	841.42
Quarter ended September 30	870.73	804.67	829.51
Quarter ended December 31	908.01	803.12	898.80
<b>2011</b>			
Quarter ended March 31	974.63	766.73	869.38
Quarter ended June 30	865.55	805.34	849.22
Quarter ended September 30	874.34	728.85	761.17
Quarter ended December 31	771.43	706.60	728.61
<b>2012</b>			
Quarter ended March 31	872.42	725.24	854.35
Quarter ended June 30	856.05	695.51	770.08
Quarter ended September 30	778.70	706.46	737.42
Quarter ended December 31	859.80	713.95	859.80
<b>2013</b>			
Quarter ending March 31 (through January 11, 2013)	898.69	871.88	898.69

## License Agreement

We have entered into a license agreement with TSE, in exchange for a fee, whereby we are permitted to use the index in connection with the offer and sale of the notes. We are not affiliated with TSE; the only relationship between TSE and us is the licensing of the use of the index and trademarks relating to the index.

The notes are not sponsored, endorsed or promoted by TSE. No inference should be drawn from the information contained in this pricing supplement that TSE makes any representation or warranty, implied or express, to us, any holder of the notes or any member of the public regarding the advisability of investing in securities generally or in the notes in particular or the ability of the TOPIX to track general stock market performance.

TSE determines, composes and calculates the index without regard to the notes. TSE has no obligation to take into account your interest, or that of anyone else having an interest, in the notes in determining, composing or calculating the index. TSE is not responsible for and has not participated in the determination of the terms, prices or amount of the notes and will not be responsible for or participate in any determination or calculation regarding the principal amount of the notes payable at the stated maturity date. TSE has no obligation or liability in connection with the administration, marketing or trading of the notes.

Neither us nor any of its affiliates accepts any responsibility for the calculation, maintenance or publication of the index or any successor index. TSE disclaims all responsibility for any errors or omissions in the calculation and dissemination of the index or the manner in which the index is applied in determining any initial index level or final index level or any amount payable upon maturity of the notes.

The level of the index and the TOPIX trademarks are subject to the proprietary rights owned by the TSE and the TSE owns all rights and know-how relating to the index such as calculation, publication and use of the level of the index and relating to the TOPIX trademarks. The TSE shall reserve the rights to change the methods of calculation or publication, to cease the calculation or publication of the level of the index or to change the TOPIX trademarks or cease the use thereof. The TSE makes no warranty or representation whatsoever, either as to the results stemmed from the use of the level of the index and the TOPIX trademarks or as to the figure at which the level of the index stands on any particular day. The TSE gives no assurance regarding accuracy or completeness of the level of the index and data contained therein. Further, the TSE shall not be liable for the miscalculation, incorrect publication, delayed or interrupted publication of the level of the index. No notes are in any way sponsored, endorsed or promoted by the TSE. The TSE shall not bear any obligation to give an explanation of the notes or an advice on investments to any purchaser of the notes or to the public. The TSE neither selects specific stocks or groups thereof nor takes into account any needs of the issuing company or any purchaser of the notes, for calculation of the level of the index. Including but not limited to the foregoing, the TSE shall not be responsible for any damage resulting from the issue and sale of the notes.

## SUPPLEMENTAL PLAN OF DISTRIBUTION

Royal Bank of Canada has agreed to sell to Goldman, Sachs & Co., and Goldman, Sachs & Co. has agreed to purchase from Royal Bank of Canada, the principal amount of the notes specified, at the price specified, on the cover page of this pricing supplement. Goldman, Sachs & Co. intends to resell each note it purchases at the price to the public set forth on the cover page of this pricing supplement. In the future, Goldman, Sachs & Co. or one of its affiliates, may repurchase and resell the notes in market-making transactions, with resales being made at prices related to prevailing market prices at the time of resale or at negotiated prices. For more information about the plan of distribution, the distribution agreement and possible market-making activities, see “Supplemental Plan of Distribution” in the accompanying prospectus supplement. The underwriting discount set forth on the cover page of this pricing supplement per \$1,000 principal amount is comprised of \$2.50 of underwriting fees and \$10 of selling commission.

We will deliver the notes against payment therefor in New York, New York on January 18, 2013, which is the fifth scheduled business day after the trade date. Under Rule 15c6-1 of the Securities Exchange Act of 1934, trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade notes on any date prior to three business days before delivery will be required, by virtue of the fact that the notes will settle in five business days (T + 5), to specify alternative settlement arrangements to prevent a failed settlement.

## SUPPLEMENTAL DISCUSSION OF CANADIAN FEDERAL INCOME TAX CONSEQUENCES

An investor should read carefully the description of material Canadian federal income tax considerations relevant to a Non-resident Holder owning debt securities under “Tax Consequences—Canadian Taxation” in the accompanying prospectus.

In the opinion of Norton Rose Canada LLP, our Canadian tax counsel, interest (including amounts deemed for purposes of the Income Tax Act (Canada) (“ITA”) to be interest) on a note that is paid or credited, or deemed for purposes of the ITA to be paid or credited, to a Non-resident Holder will not be subject to Canadian non-resident withholding tax, except in the circumstances described under “Tax Consequences—Canadian Taxation” in the accompanying prospectus. **If the index could be viewed as a proxy for the profit of Royal Bank of Canada, any interest paid or credited or deemed to be paid or credited on a note may be subject to Canadian non-resident withholding tax.**

## SUPPLEMENTAL DISCUSSION OF U.S. FEDERAL INCOME TAX CONSEQUENCES

*The following, together with the discussion of U.S. federal income taxation in the accompanying prospectus and prospectus supplement, is a general description of the material U.S. tax considerations relating to the notes. It does not purport to be a complete analysis of all tax considerations relating to the notes. Prospective purchasers of the notes should consult their tax advisors as to the consequences under the tax laws of the country of which they are resident for tax purposes and the tax laws of the U.S. of acquiring, holding and disposing of the notes and receiving payments under the notes. This summary is based upon the law as in effect on the date of this pricing supplement and is subject to any change in law that may take effect after such date.*

### Supplemental U.S. Tax Considerations

The following section supplements the discussion of U.S. federal income taxation in the accompanying prospectus under “Tax Consequences – United States Taxation” and prospectus supplement under “Certain Income Tax Consequences – United States Taxation” with respect to U.S. holders (as defined in the accompanying prospectus). Except as otherwise noted under “Non-U.S. Holders” and “Foreign Account Tax Compliance Act” below, it applies only to those U.S. holders who are not excluded from the discussion of U.S. federal income taxation in the accompanying prospectus. You should consult with your own tax advisor concerning the consequences of investing in and holding the notes.

NO STATUTORY, JUDICIAL OR ADMINISTRATIVE AUTHORITY DIRECTLY DISCUSSES HOW THE NOTES SHOULD BE TREATED FOR U.S. FEDERAL INCOME TAX PURPOSES. AS A RESULT, THE U.S. FEDERAL INCOME TAX CONSEQUENCES OF AN INVESTMENT IN THE NOTES ARE UNCERTAIN. BECAUSE OF THE UNCERTAINTY, YOU SHOULD CONSULT YOUR TAX ADVISOR IN DETERMINING THE U.S. FEDERAL INCOME TAX AND OTHER TAX CONSEQUENCES OF YOUR INVESTMENT IN THE NOTES, INCLUDING THE APPLICATION OF STATE, LOCAL OR OTHER TAX LAWS AND THE POSSIBLE EFFECTS OF CHANGES IN FEDERAL OR OTHER TAX LAWS.

In the opinion of our counsel, Morrison & Foerster LLP, it would generally be reasonable to treat the notes as pre-paid cash-settled derivative contracts in respect of the index for U.S. federal income tax purposes, and the terms of the notes require a holder and us (in the absence of a change in law or an administrative or judicial ruling to the contrary) to treat the notes for all tax purposes in accordance with such characterization. If the notes are so treated, a U.S. holder should generally recognize capital gain or loss upon the sale, exchange or maturity of the notes in an amount equal to the difference between the amount a holder receives at such time and the holder’s tax basis in the notes. In general, a U.S. holder’s tax basis in the notes will be equal to the price the holder paid for the notes. Capital gain recognized by an individual U.S. holder is generally taxed at preferential rates where the property is held for more than one year and is generally taxed at ordinary income rates where the property is held for one year or less. The deductibility of capital losses is subject to limitations.

We will not attempt to ascertain whether the issuer of any of the component stocks included in the index would be treated as a “passive foreign investment company” within the meaning of Section 1297 of the Internal Revenue Code of 1986, as amended (the “Code”) or a “United States real property holding corporation” within the meaning of Section 897 of the Code. If the issuer of one or more of such stocks were so treated, certain adverse U.S. federal income tax consequences could possibly apply. You should refer to any available information filed with the SEC by the issuers of the component stocks included in the index and consult your tax advisor regarding the possible consequences to you in this regard.

*Alternative Treatments.* Alternative tax treatments of the notes are also possible and the Internal Revenue Service might assert that a treatment other than that described above is more appropriate. For example, it would also be possible to treat the notes, and the Internal Revenue Service might assert that the notes should be treated, as a single debt instrument. Such a debt instrument would be subject to the special tax rules governing contingent payment debt instruments. If the notes are so treated, a holder would generally be required to accrue interest currently over the term of the notes even though that holder will not receive any payments from us prior to maturity. In addition, any gain a holder might recognize upon the sale, exchange or maturity of the notes would be ordinary income and any loss recognized by a holder at such time would be ordinary loss to the extent of interest included in income in the current or previous taxable years in respect of the notes, and thereafter, would be capital loss.

Since the index periodically rebalances, it is possible that the notes could be treated as a series of derivative contracts, each of which matures on the next rebalancing date. If the notes were properly characterized in such a manner, a holder would be treated as disposing of the notes on each rebalancing date in return for new derivative contracts that mature on the next rebalancing date, and a holder would accordingly likely recognize capital gain or loss on each rebalancing date equal to the difference between the holder's basis in the notes (which would be adjusted to take into account any prior recognition of gain or loss) and the fair market value of the notes on such date.

Because of the absence of authority regarding the appropriate tax characterization of the notes, it is also possible that the Internal Revenue Service could seek to characterize the notes in a manner that results in tax consequences that are different from those described above. For example, the Internal Revenue Service could possibly assert that any gain or loss that a holder may recognize upon the sale, exchange or maturity of the notes should be treated as ordinary gain or loss.

The Internal Revenue Service has released a notice that may affect the taxation of holders of the notes. According to the notice, the Internal Revenue Service and the U.S. Treasury Department are actively considering whether the holder of an instrument such as the notes should be required to accrue ordinary income on a current basis, and they are seeking comments on the subject. It is not possible to determine what guidance they will ultimately issue, if any. It is possible, however, that under such guidance, holders of the notes will ultimately be required to accrue income currently and this could be applied on a retroactive basis. The Internal Revenue Service and the U.S. Treasury Department are also considering other relevant issues, including whether additional gain or loss from such instruments should be treated as ordinary or capital and whether the special "constructive ownership rules" of Section 1260 of the Code might be applied to such instruments. Holders are urged to consult their tax advisors concerning the significance, and the potential impact, of the above considerations.

*Backup Withholding and Information Reporting.* Please see the discussion under "Tax Consequences — United States Taxation — Information Reporting and Backup Withholding" in the accompanying prospectus for a description of the applicability of the backup withholding and information reporting rules to payments made on the notes.

*Non-U.S. Holders.* The following discussion applies to non-U.S. holders of the notes. A non-U.S. holder is a beneficial owner of a note that, for U.S. federal income tax purposes, is a non-resident alien individual, a foreign corporation, or a foreign estate or trust.

A non-U.S. holder will generally not be subject to U.S. federal income or withholding tax for amounts paid in respect of the notes, provided that (i) the holder complies with any applicable certification requirements, (ii) the payment is not effectively connected with the conduct by the holder of a U.S. trade or business, and (iii) if the holder is a non-resident alien individual, such holder is not present in the U.S. for 183 days or more during the taxable year of the sale, exchange or maturity of the notes. In the case of (ii) above, the holder generally would be subject to U.S. federal income tax with respect to any income or gain in the same manner as if the holder were a U.S. holder and, in the case of a holder that is a corporation, the holder may also be subject to a branch profits tax equal to 30% (or such lower rate provided by an applicable U.S. income tax treaty) of a portion of its earnings and profits for the taxable year that are effectively connected with its conduct of a trade or business in the U.S., subject to certain adjustments. Payments made to a non-U.S. holder may be subject to information reporting and to backup withholding unless the holder complies with applicable certification and identification requirements as to its foreign status.

As discussed above, alternative characterizations of the notes for U.S. federal income tax purposes are possible. Should an alternative characterization, by reason of change or clarification of the law, by regulation or otherwise, cause payments on the notes to become subject to withholding tax, we will withhold tax at the applicable statutory rate. The Internal Revenue Service has also indicated that it is considering whether income in respect of instruments such as the notes should be subject to withholding tax. Prospective investors should consult their own tax advisors in this regard.

*Foreign Account Tax Compliance Act.* The Foreign Account Tax Compliance Act, enacted on March 18, 2010, will impose a 30% U.S. withholding tax on certain U.S. source payments, including interest (and OID), dividends, other fixed or determinable annual or periodical gain, profits, and income, and on the gross proceeds from a disposition of property of a type which can produce U.S. source interest or dividends (“withholdable payments”), if paid to a foreign financial institution (including amounts paid to a foreign financial institution on behalf of a holder), unless such institution enters into an agreement with the U.S. Treasury to collect and provide to the U.S. Treasury substantial information regarding U.S. account holders, including certain account holders that are foreign entities with U.S. owners, with such institution. The legislation also generally imposes a withholding tax of 30% on withholdable payments made to a non-financial foreign entity unless such entity provides the withholding agent with a certification that it does not have any substantial U.S. owners or a certification identifying the direct and indirect substantial U.S. owners of the entity.

These withholding and reporting requirements will generally apply to U.S. source periodic payments made after December 31, 2013 and to payments of gross proceeds from a sale or redemption made after December 31, 2016. However, if proposed U.S. Treasury regulations are finalized in their current form, this withholding tax will not be imposed on payments pursuant to obligations outstanding on January 1, 2013. Holders are urged to consult with their own tax advisors regarding the possible implications of this recently enacted legislation on their investment in the notes.

## EMPLOYEE RETIREMENT INCOME SECURITY ACT

*This section is only relevant to you if you are an insurance company or the fiduciary of a pension plan or an employee benefit plan (including a governmental plan, an IRA or a Keogh Plan) proposing to invest in the notes.*

The Employee Retirement Income Security Act of 1974, as amended (“ERISA”) and the Internal Revenue Code of 1986, as amended, prohibit certain transactions involving the assets of an employee benefit plan and certain persons who are “parties in interest” (within the meaning of ERISA) or “disqualified persons” (within the meaning of the Internal Revenue Code) with respect to the plan; governmental plans may be subject to similar prohibitions. Therefore, a plan fiduciary considering purchasing notes should consider whether the purchase or holding of such instruments might constitute a “prohibited transaction.”

Royal Bank of Canada and certain of its affiliates each may be considered a “party in interest” or a “disqualified person” with respect to many employee benefit plans by reason of, for example, Royal Bank of Canada (or its affiliate) providing services to such plans. Prohibited transactions within the meaning of ERISA or the Internal Revenue Code may arise, for example, if notes are acquired by or with the assets of a pension or other employee benefit plan that is subject to the fiduciary responsibility provisions of ERISA or Section 4975 of the Internal Revenue Code (including individual retirement accounts and other plans described in Section 4975(e)(1) of the Internal Revenue Code), which we call collectively “Plans”, and with respect to which Royal Bank of Canada or any of its affiliates is a “party in interest” or a “disqualified person”, unless those notes are acquired under an exemption for transactions effected on behalf of that Plan by a “qualified professional asset manager” or an “in-house asset manager”, for transactions involving insurance company general accounts, for transactions involving insurance company pooled separate accounts, for transactions involving bank collective investment funds, or under another available exemption. Section 408(b) (17) provides an additional exemption for the purchase and sale of notes and related lending transactions where neither the issuer of the notes nor any of its affiliates have or exercise any discretionary authority or control or render any investment advice with respect to the assets of any Plan involved in the transaction and the Plan pays no more than “adequate consideration” in connection with the transaction. The assets of a Plan may include assets held in the general account of an insurance company that are deemed to be “plan assets” under ERISA. The person making the decision on behalf of a Plan or a governmental plan shall be deemed, on behalf of itself and the Plan, by purchasing and holding the notes, or exercising any rights related thereto, to represent that (a) such purchase, holding and exercise of the notes will not result in a non-exempt prohibited transaction under ERISA or the Internal Revenue Code (or, with respect to a governmental plan, under any similar applicable law or regulation) and (b) neither Royal Bank of Canada nor any of its affiliates is a “fiduciary” (within the meaning of Section 3(21) of ERISA) with respect to the purchaser or holder in connection with such person’s acquisition, disposition or holding of the notes, or any exercise related thereto or as a result of any exercise by Royal Bank of Canada or any of its affiliates of any rights in connection with the notes, and no advice provided by Royal Bank of Canada or any of its affiliates has formed a primary basis for any investment decision by or on behalf of such purchaser or holder in connection with the notes and the transactions contemplated with respect to the notes.

## VALIDITY OF THE NOTES

In the opinion of Norton Rose Canada LLP, the issue and sale of the notes has been duly authorized by all necessary corporate action of the Bank in conformity with the indenture, and when the notes have been duly executed, authenticated and issued in accordance with the indenture, the notes will be validly issued and, to the extent validity of the notes is a matter governed by the laws of the Province of Ontario or Québec, or the laws of Canada applicable therein, and will be valid obligations of the Bank, subject to applicable bankruptcy, insolvency and other laws of general application affecting creditors' rights, equitable principles, and subject to limitations as to the currency in which judgments in Canada may be rendered, as prescribed by the Currency Act (Canada). This opinion is given as of the date hereof and is limited to the laws of the Provinces of Ontario and Quebec and the federal laws of Canada applicable thereto. In addition, this opinion is subject to customary assumptions about the Trustee's authorization, execution and delivery of the indenture and the genuineness of signatures and certain factual matters, all as stated in the letter of such counsel dated March 6, 2012, which has been filed as Exhibit 5.1 to Royal Bank's Form 6-K filed with the SEC on March 6, 2012.

In the opinion of Morrison & Foerster LLP, when the notes have been duly completed in accordance with the indenture and issued and sold as contemplated by the prospectus supplement and the prospectus, the notes will be valid, binding and enforceable obligations of Royal Bank, entitled to the benefits of the indenture, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability (including, without limitation, concepts of good faith, fair dealing and the lack of bad faith). This opinion is given as of the date hereof and is limited to the laws of the State of New York. This opinion is subject to customary assumptions about the Trustee's authorization, execution and delivery of the indenture and the genuineness of signatures and to such counsel's reliance on the Bank and other sources as to certain factual matters, all as stated in the legal opinion dated March 6, 2012, which has been filed as Exhibit 5.2 to the Bank's Form 6-K dated March 6, 2012.