

ROYAL BANK OF CANADA
Form 424B5
October 18, 2018

Filed Pursuant to Rule 424(b)(5)
Registration Statement No. 333-227001

Product Prospectus Supplement ERN-ES-1 to the Prospectus dated September 7, 2018 and
the Prospectus Supplement dated September 7, 2018

Royal Bank of Canada
Senior Global Medium-Term Notes, Series H
Enhanced Return Notes Linked to One or More Equity Securities

GENERAL TERMS

Royal Bank of Canada may offer and sell enhanced return notes (the “notes”) from time to time of any maturity. The prospectus dated September 7, 2018, the prospectus supplement dated September 7, 2018 and this product prospectus supplement describe terms that will apply generally to the notes, including any notes you purchase. A separate pricing supplement will describe the terms that apply specifically to your notes, including any changes to the terms specified below. If the terms described in the relevant pricing supplement are inconsistent with those described in this document or in the accompanying prospectus supplement or prospectus, the terms described in the relevant pricing supplement will control.

The notes are unsecured non-principal-protected notes linked to the performance of one or more equity securities (each, a “Reference Asset”) specified in the relevant pricing supplement. If the Reference Asset of your notes consists of more than one equity security, we may refer to the Reference Asset as a “Basket” and each applicable component of the Reference Asset as a “Basket Component.” The payment at maturity on your notes will be based on the performance of the Reference Asset during the term of your notes. The notes are designed for investors who are seeking exposure to the Reference Asset and who anticipate that the level of the Reference Asset will increase (or, in the case of bearish notes, decrease) from its Initial Level to the Final Level on the applicable valuation date or dates. Investors must be willing to forego interest payments on the notes and be willing to accept a return that may be negative, in which case you will receive at maturity less, and possibly significantly less, than your principal.

THE NOTES DO NOT GUARANTEE ANY RETURN OF PRINCIPAL AT MATURITY. YOU ARE SUBJECT TO A RISK TO ALL OR A PORTION OF YOUR INVESTMENT IN THE NOTES, AS DESCRIBED IN MORE DETAIL BELOW.

The notes will not be listed on any securities exchange.

Your investment in the notes involves certain risks. See “Risk Factors” beginning on page PS-4 to read about investment risks relating to the notes. Unless otherwise specified in the relevant pricing supplement, the principal of the notes is not protected and you could lose some or all of your investment.

The price at which you purchase the notes includes hedging costs and profits that Royal Bank of Canada or its affiliates expect to incur or realize. These costs and profits will reduce the secondary market price, if any secondary market develops, for the notes. As a result, you will experience an immediate and substantial decline in the value of your notes on the issue date.

None of the Securities and Exchange Commission (the “SEC”), any state securities commission or any other regulatory body has approved or disapproved of the notes or passed upon the accuracy of this product prospectus supplement or the accompanying prospectus and prospectus supplement. Any representation to the contrary is a criminal offense.

We may use this product prospectus supplement in the initial sale of a note. In addition, RBC Capital Markets, LLC or one of our other affiliates may use this product prospectus supplement in a market-making transaction in a note after its initial sale. Unless we or our agent informs the purchaser otherwise in the confirmation of sale, this product

prospectus supplement is being used in a market-making transaction.

The notes will not constitute deposits 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.

RBC Capital Markets, LLC

Product Prospectus Supplement dated October 18, 2018.

TABLE OF CONTENTS

Product Prospectus Supplement

Summary	PS-1
Risk Factors	PS-4
General Terms of the Notes	PS-12
Hypothetical Returns on Your Notes	PS-25
Use of Proceeds and Hedging	PS-26
Underlying Stock Issuers	PS-27
Historical Reference Asset Level Information	PS-28
Supplemental Discussion of Canadian Tax Consequences	PS-29
Supplemental Discussion of U.S. Federal Income Tax Consequences	PS-30
Employee Retirement Income Security Act	PS-34
Supplemental Plan of Distribution	PS-35

In this product prospectus supplement, references to the “accompanying prospectus” mean the accompanying prospectus, dated September 7, 2018, as supplemented by the accompanying prospectus supplement, dated September 7, 2018, of Royal Bank of Canada. References to the “relevant pricing supplement” mean the pricing supplement that describes the specific terms of your notes.

SUMMARY

The information in this “Summary” section is qualified by the more detailed information set forth in this product prospectus supplement, the prospectus supplement and the prospectus, as well as the relevant pricing supplement.

Issuer: Royal Bank of Canada (“Royal Bank”).

Underwriter: RBC Capital Markets, LLC.

Issue: Senior Global Medium-Term Notes, Series H.

Reference Asset: As specified in the relevant pricing supplement.

Minimum Investment: As specified in the relevant pricing supplement.

Denominations: Unless otherwise specified in the relevant pricing supplement, the notes will be issued in denominations of \$1,000 and integral multiples in excess of \$1,000.

Interest Payable: None.

The payment at maturity will be based on the performance of the Reference Asset, and will be calculated as follows:

Payment at Maturity in Excess of Principal

If the Final Level is greater than or equal to (or, in the case of bearish notes, less than or equal to) the Initial Level, then, at maturity, you will receive an amount equal to:

Principal Amount + (Principal Amount × Percentage Change)

(a) If the relevant pricing supplement specifies that a “Leverage Factor” is applicable to your notes, then the payment at maturity will be calculated as follows:

Principal Amount + (Principal Amount × Percentage Change × Leverage Factor)

(b) If the relevant pricing supplement specifies that a “Booster Coupon” is applicable to your notes:

Payment at Maturity:

1. If the Percentage Change is greater than the Booster Percentage, then the payment at maturity will equal:

Principal Amount + (Principal Amount × Percentage Change)

2. If the Percentage Change is greater than or equal to 0% but less than or equal to the Booster Percentage, then the payment at maturity will equal:

Principal Amount + (Principal Amount × Booster Percentage)

(c) If the relevant pricing supplement specifies that a cap is applicable to your notes, then the payment at maturity will not exceed the Maximum Redemption Amount set forth in the relevant pricing supplement.

(d) If the relevant pricing supplement specifies that a “Digital Coupon” is applicable to your notes, then the payment at maturity will equal:

Principal Amount + (Principal Amount × Digital Coupon)

PS-1

Payment at Maturity Less Than or Equal to Principal

If the Final Level is less than (or, in the case of bearish notes, greater than) the Initial Level, then, at maturity, you will receive less than the principal amount of your notes. In such a case, the payment at maturity will equal:

Principal Amount + (Principal Amount × Percentage Change)

(a) If the relevant pricing supplement specifies that a “Downside Multiplier” is applicable to your notes, then the payment at maturity will be calculated as follows:

Principal Amount + (Principal Amount × Percentage Change × Downside Multiplier)

(b) If the relevant pricing supplement specifies that a “Buffer” is applicable to your notes:

1. If the Final Level is greater than or equal to (or, in the case of bearish notes, less than or equal to) the Buffer Level, then the payment at maturity will equal the principal amount of your notes.

2. If the Final Level is less than (or, in the case of bearish notes, greater than) the Buffer Level, then the payment at maturity will equal:

Principal Amount + [Principal Amount × (Percentage Change + Buffer Percentage)]

(c) If the relevant pricing supplement specifies that a “Barrier” is applicable to your notes:

1. If no Barrier Event has occurred, then the payment at maturity will equal the principal amount of your notes.

2. If a Barrier Event has occurred, then the payment at maturity will equal:

Principal Amount + (Principal Amount × Percentage Change)

The Percentage Change, expressed as a percentage, is calculated as follows:

$\frac{\text{Final Level} - \text{Initial Level}}{\text{Initial Level}}$

Initial Level

Percentage Change: If your notes are bearish notes, the Percentage Change will be calculated as follows:

$\frac{\text{Initial Level} - \text{Final Level}}{\text{Initial Level}}$

Initial Level

Maximum

Redemption Amount: As specified in the relevant pricing supplement, if applicable.

Amount:

Leverage Factor: As specified in the relevant pricing supplement, if applicable.

Downside

Multiplier: As specified in the relevant pricing supplement, if applicable.

Booster Percentage: A specified percentage increase (or, in the case of bearish notes, decrease) in the level of the Reference Asset. The Booster Percentage will be set forth in the relevant pricing supplement, if applicable.

Digital Coupon: A percentage that will be specified in the applicable pricing supplement.

Buffer Level: A specified level of the Reference Asset that is less than (or, in the case of bearish notes, greater than) the Initial Level. The Buffer Level will be a percentage of the Initial Level and set forth in the relevant pricing supplement, if applicable.

Edgar Filing: ROYAL BANK OF CANADA - Form 424B5

Buffer Percentage:	A specified percentage that will be set forth in the relevant pricing supplement, if applicable. For example, if the Buffer Level is 90% of the Initial Level, the Buffer Percentage will be 10%.
Barrier Level:	A specified level of the Reference Asset that is less than (or, in the case of bearish notes, greater than) the Initial Level. The Barrier Level will be a percentage of the Initial Level and set forth in the relevant pricing supplement, if applicable.
Barrier Event:	Depending upon the terms set forth in the relevant pricing supplement, a Barrier Event will occur if: (i) the Final Level is less than (or, in the case of bearish notes, greater than) the Initial Level, and (ii) (a) for notes subject to Intra-Day Monitoring, at any time during the Monitoring Period, the level of the Reference Asset is less than (or, in the case of bearish notes, greater than) the Barrier Level, or (b) for notes subject to Close of Trading Day Monitoring, on any trading day during the Monitoring Period, the closing level of the Reference Asset is less than (or, in the case of bearish notes, greater than) the Barrier Level, or (c) for notes subject to Final Valuation Date Monitoring, the Final Level is less than (or, in the case of bearish notes, greater than) the Barrier Level.
Monitoring Period:	As specified in the relevant pricing supplement, if applicable.
Initial Level:	As specified in the relevant pricing supplement.
Final Level:	The closing level of the Reference Asset on the valuation date (if there is one valuation date applicable to the notes) or the arithmetic average of the closing levels of the Reference Asset on each of the valuation dates (if there is more than one valuation date applicable to the notes), or any other dates specified in the relevant pricing supplement.
Issue Date:	As specified in the relevant pricing supplement.
Valuation Date(s):	Unless otherwise specified in the relevant pricing supplement, the valuation date, or if there is more than one valuation date, the final valuation date, will be the third trading day prior to the maturity date, subject to extension for up to ten trading days for market disruption events.
Maturity Date:	As specified in the relevant pricing supplement.
CUSIP:	As specified in the relevant pricing supplement.
Clearance and Settlement:	DTC global (including through its indirect participants Euroclear and Clearstream, Luxembourg, as described under “Description of Debt Securities—Ownership and Book-Entry Issuance” in the accompanying prospectus).
Listing:	The notes will not be listed on any securities exchange or quotation system.
Calculation Agent:	RBC Capital Markets, LLC.

PS-3

RISK FACTORS

An investment in your notes is subject to the risks described below, as well as the risks described under “Risk Factors” in the prospectus and the prospectus supplement. Your notes are not secured debt and are riskier than ordinary unsecured debt securities. Also, investing in your notes is not equivalent to investing directly in the applicable Reference Asset. You should carefully consider whether the notes are suited to your particular circumstances. This product prospectus supplement should be read together with the prospectus, the prospectus supplement and the relevant pricing supplement. The information in the prospectus and prospectus supplement is supplemented by, and to the extent inconsistent therewith replaced and superseded by, the information in this product prospectus supplement and the relevant pricing supplement. This section describes the most significant risks relating to the terms of the notes. We urge you to read the following information about these risks, together with the other information in this product prospectus supplement and the prospectus, the prospectus supplement and the relevant pricing supplement, before investing in the notes.

General Risks Relating to the Notes

Your Investment in the Notes May Result in a Loss.

The notes do not guarantee any return of principal unless otherwise specified in the relevant pricing supplement. We will not repay you a fixed amount of principal on the maturity date. The amount payable on the notes at maturity will depend primarily on the Percentage Change in the level of the Reference Asset from the Initial Level to the Final Level. Because the level of the Reference Asset will be subject to market fluctuations, the return on your notes at maturity may be less, and possibly significantly less, than the principal amount per note. If the Final Level is less than (or, in the case of bearish notes, greater than) the Initial Level (and, in the case of notes with a buffer, less than (or, in the case of bearish notes with a buffer, greater than) the Buffer Level) or a Barrier Event has occurred (as applicable), the return on your notes will be less than the principal amount per note. This will be the case even if the level of the Reference Asset is greater than (or, in the case of bearish notes, less than) the Initial Level at certain periods during the term of the notes. In the case of notes with a Downside Multiplier greater than 100%, your notes will participate in the downside performance (or, in the case of bearish notes, upside performance) of the Reference Asset on a leveraged basis. Depending on the Downside Multiplier, you may lose all or a substantial portion of the amount that you invested to purchase the notes.

The Buffer Level and Barrier Level Provide Only Limited Principal Protection.

You will receive the principal amount of your notes at maturity only if (i) in the case of notes with a buffer, the Final Level is greater than or equal to (or, in the case of bearish notes with a buffer, less than or equal to) the Buffer Level and (ii) in the case of notes with a barrier, a Barrier Event has not occurred. If the Final Level is less than (or, in the case of bearish notes, greater than) the Buffer Level or a Barrier Event has occurred, as applicable, you will lose some or all of your principal amount.

The Notes Do Not Pay Interest and Your Return May Be Lower than the Return on a Conventional Debt Security of Comparable Maturity.

There will be no periodic interest payments on the notes as there would be on a conventional fixed-rate or floating-rate debt security having the same maturity. The return that you will receive on your notes, which could be negative, may be less than the return you could earn on other investments. Even if your return is positive, your return may be less than the return you would earn if you bought a conventional senior interest bearing debt security of Royal Bank with the same maturity date or if you invested directly in the Reference Asset. Your investment may not reflect the full opportunity cost to you when you take into account factors that affect the time value of money.

Your Potential Payment at Maturity May Be Limited.

If your notes are subject to a cap or a Digital Coupon, they will provide less opportunity to participate in the appreciation (or, in the case of bearish notes, depreciation) of the Reference Asset than an investment in a

security linked to the Reference Asset providing full participation in the appreciation (or, in the case of bearish notes, depreciation), because the payment at maturity will not exceed the Maximum Redemption Amount or the Digital Coupon, as applicable. Accordingly, your return on the notes may be less than your return would be if you made an investment in a security directly linked to the positive (or, in the case of bearish notes, negative) performance of the Reference Asset.

Owning the Notes Is Not the Same as Owning the Reference Asset or its Components or a Security Directly Linked to the Performance of the Reference Asset or its Components.

The return on your notes will not reflect the return you would realize if you actually owned the Reference Asset or its components or a security directly linked to the performance of the Reference Asset or its underlying components and held that investment for a similar period because:

- your notes may be subject to a cap or Digital Coupon, in which case the payment at maturity will not exceed the maximum return set forth in the relevant pricing supplement; and
- the value of the Reference Asset may be calculated in part by reference only to the prices of the applicable component stocks, without taking into consideration the value of any dividends paid on those stocks.

Your notes may trade quite differently from the Reference Asset. Changes in the level of the Reference Asset may not result in comparable changes in the market value of your notes. Even if the level of the Reference Asset increases (or, in the case of bearish notes, decreases) from the Initial Level during the term of the notes, the market value of the notes prior to maturity may not increase to the same extent. It is also possible for the market value of the notes prior to maturity to decrease while the level of the Reference Asset increases (or, in the case of bearish notes, decreases).

There May Not Be an Active Trading Market for the Notes—Sales in the Secondary Market May Result in Significant Losses.

There may be little or no secondary market for the notes. The notes will not be listed on any securities exchange. RBC Capital Markets, LLC and other affiliates of Royal Bank may make a market for the notes; however, they are not required to do so. RBC Capital Markets, LLC or any other affiliate of Royal Bank may stop any market-making activities at any time. Even if a secondary market for the notes develops, it may not provide significant liquidity or trade at prices advantageous to you. 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 issue price, and as a result, you may suffer substantial losses.

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

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

- the level of the Reference Asset, including, in the case of notes that have a buffer, whether the level of the Reference Asset trades or closes at a level below the Buffer Level or, in the case of notes that have a Barrier, whether a Barrier Event has occurred;
- if your notes are subject to a cap or a Digital Coupon, your potential return on the notes will be limited;
- the volatility (i.e., the frequency and magnitude of changes) of the price or level of the Reference Asset;
- the dividend rate on the applicable equity securities;

economic, financial, political, military, regulatory, legal and other events that affect the applicable securities markets generally and the U.S. markets in particular, and which may affect the level of the Reference Asset;

- interest and yield rates in the market; and
- the time remaining to maturity of the notes.

These factors may influence the market value of your notes if you sell your notes before maturity. Our creditworthiness, as represented by our credit ratings or as otherwise perceived in the market will also affect the market value of your notes. If you sell your notes prior to maturity, you may receive less than the principal amount of your notes.

Payments on the Notes Are Subject to Our Credit Risk, and Changes in Our Credit Ratings Are Expected to Affect the Market Value of the Notes.

The notes are Royal Bank's senior unsecured debt securities. As a result, your receipt of the amount due on the maturity date is dependent upon Royal Bank's ability to repay its obligations at that time. This will be the case even if the level of the Reference Asset increases (or, in the case of bearish notes, decreases) after the pricing date. No assurance can be given as to what our financial condition will be at the maturity of the notes.

If Your Notes Are Linked to a Basket, Changes in the Level of One or More Basket Components May Be Offset by Changes in the Level of One or More Other Basket Components.

Your notes may be linked to a Basket. In such a case, a change in the levels of one or more Basket Components may not correlate with changes in the levels of one or more other Basket Components. The level of one or more Basket Components may increase, while the level of one or more other Basket Components may not increase as much, or may even decrease. The opposite changes may occur in the case of bearish notes. Therefore, in determining the level of the Basket as of any time, increases (or, in the case of bearish notes, decreases) in the level of one Basket Component may be moderated, or wholly offset, by lesser increases or decreases (or, in the case of bearish notes, lesser decreases and increases) in the level of one or more other Basket Components. If the weightings of the applicable Basket Components are not equal, changes in the level of the Basket Components which are more heavily weighted could have a disproportionately adverse impact upon your notes.

The Amount to Be Paid at Maturity Will Not Be Affected by All Developments Relating to the Reference Asset. Changes in the level of the Reference Asset during the term of the notes before the relevant valuation date or valuation dates will not be reflected in the calculation of the payment at maturity, unless the level of the Reference Asset trades or closes below (or, in the case of bearish notes, above) the Barrier Level, as applicable. The calculation agent will calculate this amount by comparing only the Final Level to the Initial Level (or the Buffer Level, as applicable) and, in the case of notes that have a barrier, by comparing the trading level or closing level of the Reference Asset during the Monitoring Period or on the valuation date(s), as applicable, to the Barrier Level. No other levels of the Reference Asset will be taken into account. As a result, you may receive less than the principal amount of your notes, even if the level of the Reference Asset has increased (or, in the case of bear notes, decreased) at certain times during the term of the notes before decreasing to a level below (or, in the case of bearish notes, increasing to a level above) the Initial Level (or Buffer Level, as applicable) and, if applicable, below (or, in the case of bearish notes, above) the Barrier Level as of the relevant dates.

We Will Not Hold Any Asset Comprising the Reference Asset for Your Benefit.

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 securities that may comprise the Reference Asset that we or they may acquire. Neither we nor our affiliates will pledge or otherwise hold any assets for your benefit, including any Reference Asset or its components. Consequently, in the event of our bankruptcy,

insolvency or liquidation, any of those assets that we own will be subject to the claims of our creditors generally and will not be available for your benefit specifically.

The Market Value of Your Notes Will Likely Decline at an Accelerated Rate as the Level of the Reference Asset Approaches and Drops Below (or, in the Case of Bearish Notes, Rises Above) the Barrier Level.

If your notes have a barrier, when the trading level or closing level, as applicable, of the Reference Asset on any trading day declines (or, in the case of bearish notes, rises) from the Initial Level to a level near the Barrier Level for the first time, the market value of the notes will likely decline at a greater rate than the decrease (or, in the case of bearish notes, increase) in the level of the Reference Asset. If the level of the Reference Asset is near or below (or, in the case of bearish notes, above) the Barrier Level, we expect the market value of the notes to decline to reflect the fact that investors may receive less than their principal amount at maturity.

You Must Rely on Your Own Evaluation of the Merits of an Investment Linked to the Reference Asset.

In the ordinary course of their business, our affiliates may have expressed views on expected movements in any Reference Asset or its components, and may do so in the future. These views or reports may be communicated to our clients and clients of our affiliates. However, these views are subject to change from time to time. Moreover, other professionals who transact business in markets relating to any Reference Asset or its components may at any time have significantly different views from those of our affiliates. For these reasons, you are encouraged to derive information concerning the applicable Reference Asset or its components from multiple sources, and you should not rely solely on views expressed by our affiliates.

Trading and Other Transactions by Royal Bank or its Affiliates in the Reference Asset or Its Components, Futures, Options, Exchange-Traded Funds or Other Derivative Products May Adversely Affect the Market Value of the Notes. As described below under "Use of Proceeds and Hedging," we or one or more affiliates may hedge our obligations under the notes by purchasing or selling the Reference Asset or its components, futures or options on the Reference Asset or its components, or exchange-traded funds or other derivative instruments with returns linked or related to changes in the performance of the Reference Asset or its components. We or our affiliates may adjust these hedges by, among other things, purchasing or selling those assets at any time. Although they are not expected to, any of these hedging activities may adversely affect the level of the Reference Asset or its components, and, therefore, the market value of the notes. It is possible that we or one or more of our affiliates could receive substantial returns from these hedging activities while the market value of the notes decreases.

We or one or more of our affiliates may also engage in trading in the Reference Asset or its components and other investments relating to those assets on a regular basis as part of our general broker-dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate transactions for customers, including block transactions. Any of these activities could adversely affect the level of the Reference Asset or its components and, therefore, the market value of the notes. We or one or more of our affiliates may also issue or underwrite other securities or financial or derivative instruments with returns linked or related to changes in the performance of the Reference Asset or its components. By introducing competing products into the marketplace in this manner, we or one or more of our affiliates could adversely affect the market value of the notes.

The Inclusion in the Purchase Price of the Notes of a Selling Concession and of Our Cost of Hedging Our Market Risk under the Notes is Likely to Adversely Affect the Market Value of the Notes.

The price at which you purchase the notes includes a selling concession (including a broker's commission), as well as the costs that we (or one of our affiliates) expect to incur in the hedging of our market risk under the notes. The hedging costs include the expected cost of undertaking this hedge, as well as the profit that we (or our affiliates) expect to realize in consideration for assuming the risks inherent in providing the hedge. As a result, assuming no change in market conditions or any other relevant factors, the price, if any, at which you may be able to sell your notes prior to maturity will likely be less than your original purchase price. We expect that this effect will be greater if it occurs earlier in the term of the notes than if it occurs later in the term of the notes.

The Business Activities of Royal Bank or its Affiliates May Create Conflicts of Interest.

As noted above, we and our affiliates expect to engage in trading activities related to the Reference Asset or its components that are not for the account of holders of the notes or on their behalf. These trading activities may present a conflict between the holders' interests in the notes and the interests we and our affiliates will have in their proprietary accounts, in facilitating transactions, including options and other derivatives transactions, for their customers and in accounts under their management. These trading activities, if they influence the level of the Reference Asset or its components, could be adverse to the interests of the holders of the notes. We and one or more of our affiliates may, at present or in the future, engage in business with the issuers of the equity securities included in a Reference Asset, including making loans to or providing advisory services to those companies. These services could include investment banking and merger and acquisition advisory services. These activities may present a conflict between our or one or more of our affiliates' obligations and your interests as a holder of the notes. Moreover, we and our affiliates may have published, and in the future expect to publish, research reports with respect to the Reference Asset or its components. This research is modified from time to time without notice and may express opinions or provide recommendations that are inconsistent with purchasing or holding the notes. Any of these activities by us or one or more of our affiliates may affect the level of the Reference Asset or its components and, therefore, the market value of the notes.

The Calculation Agent Can Postpone the Determination of the Final Level if a Market Disruption Event Occurs.

The determination of the Final Level may be postponed if the calculation agent determines that a market disruption event has occurred or is continuing on any valuation date with respect to the Reference Asset. If such a postponement occurs, the calculation agent will use the closing level of the Reference Asset on the first subsequent business day on which no market disruption event occurs or is continuing. In no event, however, will any valuation date be postponed by more than ten trading days. As a result, if a market disruption event occurs or is continuing on a valuation date, the maturity date for the notes could also be postponed, although not by more than ten trading days.

If the determination of the level of the Reference Asset for any 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 date on which the level of the Reference Asset will be determined by the calculation agent. In such an event, the calculation agent will make a good faith estimate in its sole discretion of the level that would have prevailed in the absence of the market disruption event. See "General Terms of the Notes—Market Disruption Events."

There Are Potential Conflicts of Interest Between You and the Calculation Agent.

The calculation agent will, among other things, determine the amount of your payment at maturity on the notes. Our wholly-owned subsidiary, RBC Capital Markets, LLC, will serve as the calculation agent. We may change the calculation agent after the original issue date without notice to you. The calculation agent will exercise its judgment when performing its functions. For example, the calculation agent may have to determine whether a market disruption event affecting the Reference Asset has occurred, and make certain adjustments with respect to the Reference Asset if certain corporate events occur. This determination may, in turn, depend on the calculation agent's judgment whether the event has materially interfered with our ability or the ability of one of our affiliates to unwind our hedge positions. Since this determination by the calculation agent will affect the payment at maturity on the notes, the calculation agent may have a conflict of interest if it needs to make a determination of this kind.

The Historical Performance of the Reference Asset or its Components Should Not Be Taken as an Indication of Their Future Performance.

The level of the Reference Asset will determine the amount to be paid on the notes at maturity. The historical performance of the Reference Asset or its components does not necessarily give an indication of their future performance. As a result, it is impossible to predict whether the level of the Reference Asset will rise or fall during the term of the notes. The level of the Reference Asset and its components will be influenced by complex and interrelated political, economic, financial and other factors.

Significant Aspects of the Tax Treatment of an Investment in the Notes Are Uncertain.

The tax treatment of an investment in the notes is uncertain. We do not plan to request a ruling from the Internal Revenue Service or from the Canada Revenue Agency regarding the tax treatment of an investment in the notes, and the Internal Revenue Service, the Canada Revenue Agency or a court may not agree with the tax treatment described in this product prospectus 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 and whether all or part of the gain a holder may recognize upon sale or maturity of an instrument such as the notes should be treated as ordinary income. The outcome of this process is uncertain and could apply on a retroactive basis.

Please read carefully the sections entitled “Supplemental Discussion of U.S. Federal Income Tax Consequences” in this product prospectus 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.

For a more complete discussion of the Canadian federal income tax consequences of investing in the notes, please see “Tax Consequences—Canadian Taxation” in the accompanying prospectus. 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.

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 product prospectus supplement contains a general description of certain U.S. and Canadian tax considerations relating to the notes. If you are a non-U.S. investor, you should consult your tax advisor 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.

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, which we call “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. For additional information, please see the discussion under “Employee Retirement Income Security Act” below.

Risks Relating to the Applicable Reference Asset

You Will Not Have Any Shareholder Rights and Will Have No Right to Receive any Shares of the Reference Asset at Maturity.

Investing in your notes will not make you a holder of any of the constituent stocks of the Reference Asset. 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 any of these securities.

An Investment in the Notes May Be Subject to Risks Associated with Non-U.S. Securities Markets.

The Reference Asset may include one or more equity securities that have been issued by non-U.S. companies. An investment in securities linked to the value of non-U.S. equity securities involves particular risks. Non-U.S. securities may be more volatile than U.S. securities, and market developments may affect non-U.S. securities differently from the U.S. securities. Direct or indirect government intervention to stabilize these non-U.S. securities, as well as cross shareholdings among non-U.S. companies, may affect trading prices and volumes in those securities.

Securities prices of non-U.S. companies are subject to political, economic, financial and social factors that may be unique to the particular country. These factors, which could negatively affect the non-U.S. securities, include the possibility of recent or future changes in the economic and fiscal policies of non-U.S. governments, the possible imposition of, or changes in, currency exchange laws or other non-U.S. laws or restrictions applicable to non-U.S. companies or investments in non-U.S. equity securities, the possibility of fluctuations in the rate of exchange between currencies, the possibility of outbreaks of hostility and political instability and the possibility of natural disaster or adverse public health developments in the region. Moreover, the economies of certain foreign countries may differ favorably or unfavorably from the U.S. economy in important respects, such as growth of gross national product, rate of inflation, trade surpluses or deficits, capital reinvestment, resources and self-sufficiency.

We Do Not Control Any Company Included in a Reference Asset and Are Not Responsible for Any Disclosure Made by Any Other Company.

Neither we nor any of our affiliates have the ability to control the actions of any of the companies included in a Reference Asset, nor do we assume any responsibility for the adequacy or accuracy of any publicly available information about any of these companies, unless (and only to the extent that) our securities or the securities of our affiliates are represented by that Reference Asset. You should make your own investigation into the companies represented by the applicable Reference Asset.

You Will Have Limited Anti-Dilution Protection.

If your notes are linked to one or more equity securities, the calculation agent will make certain adjustments for stock splits, reverse stock splits, stock dividends, extraordinary dividends and other events that affect the applicable issuer's capital structure, but only in the situations we describe in "General Terms of the Notes—Anti-Dilution Adjustments Relating to Equity Securities" below. The calculation agent will not be required to make an adjustment for every corporate event that may affect the relevant security. For example, the calculation agent will not make any adjustments for events such as an offering by the relevant issuer of equity securities, a tender or exchange offer for the issuer's shares at a premium to its then-current market price by that issuer or a tender or exchange offer for less than all outstanding shares of that issuer by a third party. Those events or other actions by the applicable issuer or a third party may nevertheless adversely affect the level of the Reference Asset, and adversely affect the value of your notes.

Risks Relating to the Reference Asset that Is or Includes an American Depositary Receipt (“ADR”)

The Value of an ADR May Not Accurately Track the Value of the Common Shares of the Applicable Company.

If the Reference Asset is or includes an ADR, each ADR will represent shares of the relevant company (an “Underlying Company”). The trading patterns of the ADRs will generally reflect the characteristics and valuations of the underlying common shares; however, the value of the ADRs may not completely track the value of those shares.

Trading volume and pricing on the applicable non-U.S. exchange may, but will not necessarily, have similar characteristics as the ADRs. For example, certain factors may increase or decrease the public float of the ADRs and, as a result, the ADRs may have less liquidity or lower market value than the underlying common shares.

Adverse Trading Conditions in the Applicable Non-U.S. Market May Negatively Affect the Value of the Reference Asset that Is or Includes an ADR.

Holder of the Underlying Company’s ADRs may usually surrender the ADRs in order to receive and trade the underlying common shares. This provision permits investors in the ADRs to take advantage of price differentials between markets. However, this provision may also cause the market prices of the applicable ADRs to more closely correspond with the values of the common shares in the applicable non-U.S. markets. As a result, a market outside of the United States for the underlying common shares that is not liquid may also result in an illiquid market for the ADRs.

Other Risk Factors Relating to the Applicable Reference Asset

The relevant pricing supplement may set forth additional risk factors as to the Reference Asset that you should review prior to purchasing the notes.

PS-11

GENERAL TERMS OF THE NOTES

Please note that in this section entitled “General Terms of the Notes,” references to “holders” mean those who own notes registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in notes registered in street name or in notes issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the notes should read the section entitled “Description of the Notes We May Offer—Legal Ownership” in the prospectus supplement and “Description of Debt Securities—Ownership and Book-Entry Issuance” in the prospectus.

In addition to the terms described in the “Summary” section above, the following general terms will apply to the notes, including your notes:

Specified Currency

Unless otherwise specified in the relevant pricing supplement, all payments, if any, on the notes will be made in U.S. dollars (“\$”).

Form and Denomination

The notes will be issued only in global form through DTC. Unless otherwise specified in the relevant pricing supplement, the notes will be issued in minimum denominations of \$1,000 and integral multiples of \$1,000.

No Listing

Your notes will not be listed or displayed on any securities exchange or included in any interdealer market quotation system.

Defeasance, Default Amount, Other Terms

Neither full defeasance nor covenant defeasance will apply to your notes. The following 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, issue date, issue price discounts or commissions and net proceeds to Royal Bank in the relevant pricing supplement 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 at Maturity

At maturity, subject to our credit risk as issuer of the notes, you will receive a cash payment that is based on the performance of the Reference Asset. The payment at maturity will be calculated as follows:

Payment at Maturity in Excess of Principal

If the Final Level is greater than or equal to (or, in the case of bearish notes, less than or equal to) the Initial Level, then, at maturity, you will receive an amount equal to:

Principal Amount + (Principal Amount × Percentage Change)

The Percentage Change is the difference between the Final Level and the Initial Level and is expressed as a percentage of the Initial Level. The Percentage Change may be positive or negative and will be calculated as follows:

Final Level - Initial Level

Initial Level

If your notes are bearish notes, the Percentage Change will be calculated as follows:

Initial Level - Final Level

Initial Level

(a) Leverage Factor. If the relevant pricing supplement specifies that a Leverage Factor is applicable to your notes, then the payment at maturity will be calculated as follows:

Principal Amount + (Principal Amount × Percentage Change × Leverage Factor)

The Leverage Factor represents the extent to your notes will participate in the upside performance (or, in the case of bearish notes, downside performance) of the Reference Asset. The Leverage Factor may be less than, equal to, or greater than 100%. If the Leverage Factor is less than 100%, your notes will participate in less than the full upside performance (or, in the case of bearish notes, downside performance) of the Reference Asset. If the Leverage Factor is greater than 100%, your notes will participate in the upside performance (or, in the case of bearish notes, downside performance) on a leveraged basis. The Leverage Factor will be specified in the relevant pricing supplement, if applicable.

(b) Booster Coupon. If the relevant pricing supplement specifies that a Booster Coupon is applicable to your notes:

1. If the Percentage Change is greater than the Booster Percentage, then the payment at maturity will equal:

Principal Amount + (Principal Amount × Percentage Change)

2.