

ROYAL BANK OF CANADA  
Form 424B2  
November 29, 2018

RBC Capital Markets® Filed Pursuant to Rule 424(b)(2)  
Registration Statement No. 333-227001

Pricing Supplement  
Dated November 28,  
2018 \$324,000  
To the Product Buffered Booster Notes  
Prospectus Supplement Linked to the EURO STOXX 50®  
ERN-EI-1, Prospectus Index, Due December 1, 2023  
Supplement, and Royal Bank of Canada  
Prospectus Each Dated  
September 7, 2018

Royal Bank of Canada is offering the Buffered Booster Notes (the “Notes”) linked to the performance of the EURO STOXX 50® Index (the “Reference Asset”).

The CUSIP number for the Notes is 78013XR75. The Notes do not pay interest.

If the Final Level is greater than or equal to the Initial Level, but the Percentage Change does not exceed the Booster Coupon, the Notes provide a fixed return equal to the principal amount plus the Booster Coupon. If the Percentage Change exceeds the Booster Coupon, the Notes provide a one-for-one positive return equal to the Percentage Change. If the Final Level is less than the Initial Level by no more than 25%, investors will receive the principal amount. Investors will lose 1% of the principal amount of the Notes for each 1% decrease from the Initial Level to the Final Level of more than 25%. Any payments on the Notes are subject to our credit risk.

Booster Coupon: 60%

Issue Date: November 30, 2018

Maturity Date: December 1, 2023

The Notes will not be listed on any securities exchange.

Investing in the Notes involves a number of risks. See “Risk Factors” beginning on page S-1 of the prospectus supplement dated September 7, 2018, “Additional Risk Factors Specific to the Notes” beginning on page PS-4 of the product prospectus supplement dated September 7, 2018, and “Selected Risk Considerations” beginning on page P-5 of this pricing supplement.

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. government agency or instrumentality. The Notes are not subject to conversion into our common shares under subsection 39.2(2.3) of the Canada Deposit Insurance Corporation Act.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined that this pricing supplement is truthful or complete. Any representation to the contrary is a criminal offense.

|                                                       | <u>Per Note</u> | <u>Total</u> |
|-------------------------------------------------------|-----------------|--------------|
| Price to public <sup>(1)</sup>                        | 100.00%         | \$324,000    |
| Underwriting discounts and commissions <sup>(1)</sup> | 3.50%           | \$11,340     |
| Proceeds to Royal Bank of Canada                      | 96.50%          | \$312,660    |

<sup>(1)</sup> Certain dealers who purchased the Notes for sale to certain fee-based advisory accounts may have foregone some or all of their underwriting discount or selling concessions. The public offering price for investors purchasing the Notes in these accounts was between \$965.00 and \$1,000 per \$1,000 in principal amount.

The initial estimated value of the Notes as of the date of this pricing supplement is \$949.01 per \$1,000 in principal amount, which is less than the price to public. The actual value of the Notes at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount. We describe our determination of the initial estimated value in more detail below.

RBC Capital Markets, LLC, which we refer to as RBCCM, acting as agent for Royal Bank of Canada, received a commission of \$35.00 per \$1,000 in principal amount of the Notes and used a portion of that commission to allow selling concessions to other dealers of up to \$35.00 per \$1,000 in principal amount of the Notes. The other dealers may forgo, in their sole discretion, some or all of their selling concessions. See “Supplemental Plan of Distribution (Conflicts of Interest)” below.

RBC Capital Markets, LLC

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Buffered Booster Notes  
 Linked to the EURO STOXX 50® Index  
 Royal Bank of Canada

## SUMMARY

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

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Issuer:                                    | Royal Bank of Canada (“Royal Bank”)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Underwriter:                               | RBC Capital Markets, LLC (“RBCCM”)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Reference Asset:                           | EURO STOXX 50® Index                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Bloomberg Ticker:                          | SX5E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Currency:                                  | U.S. Dollars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Minimum Investment:                        | \$1,000 and minimum denominations of \$1,000 in excess thereof                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Pricing Date:                              | November 28, 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Issue Date:                                | November 30, 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CUSIP:                                     | 78013XR75                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Valuation Date:                            | November 28, 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Maturity Date:                             | December 1, 2023, subject to extension for market and other disruptions, as described in the product prospectus supplement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Payment at Maturity (if held to maturity): | <p>1. If the Percentage Change is greater than the Booster Coupon, then the investor will receive an amount per \$1,000 in principal amount of the Notes equal to:<br/> <math>\text{Principal Amount} + [\text{Principal Amount} \times \text{Percentage Change}]</math></p> <p>2. If the Percentage Change is greater than or equal to 0%, but does not exceed the Booster Coupon, then the investor will receive an amount per \$1,000 in principal amount of the Notes equal to:<br/> <math>\text{Principal Amount} + [\text{Principal Amount} \times \text{Booster Coupon}]</math></p> <p>3. If the Percentage Change is less than 0%, but not by more than the Buffer Percentage (that is, the Percentage Change is between -0.01% and -25.00%), then the investor will receive the principal amount only.</p> <p>4. If the Percentage Change is negative, by more than the Buffer Percentage (that is, the Percentage Change is between -25.01% and -100%), then the investor will receive an amount per \$1,000 in principal amount of the Notes equal to:<br/> <math>\text{Principal Amount} + [\text{Principal Amount} \times (\text{Percentage Change} + \text{Buffer Percentage})]</math></p> <p>In this case, investors may lose up to 75% of the principal amount of the Notes.</p> |
| Percentage Change:                         | The Percentage Change, expressed as a percentage, is calculated using the following formula:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Initial Level:                             | 3,168.29, which was the closing level of the Reference Asset on the Pricing Date.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Final Level:                               | The closing level of the Reference Asset on the Valuation Date.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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Buffered Booster Notes

Linked to the EURO STOXX 50® Index

Royal Bank of Canada

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|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Booster Coupon:                        | 60%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Buffer Percentage:                     | 25.00%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Buffer Level:                          | 2,376.22, which is 75.00% of the Initial Level (rounded to two decimal places)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Principal at Risk:                     | The Notes are NOT principal protected. You may lose a substantial portion of your principal amount at maturity if the Final Level is less than the Buffer Level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Calculation Agent:                     | RBCCM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| U.S. Tax Treatment:                    | By purchasing a Note, each holder agrees (in the absence of a change in law, an administrative determination or a judicial ruling to the contrary) to treat the Notes as a pre-paid cash-settled derivative contract for U.S. federal income tax purposes. However, the U.S. federal income tax consequences of your investment in the Notes are uncertain and the Internal Revenue Service could assert that the Notes should be taxed in a manner that is different from that described in the preceding sentence. Please see the section below, “Supplemental Discussion of U.S. Federal Income Tax Consequences,” and the discussion (including the opinion of our counsel Morrison & Foerster LLP) in the product prospectus supplement dated September 7, 2018 under “Supplemental Discussion of U.S. Federal Income Tax Consequences,” which apply to the Notes. |
| Secondary Market:                      | RBCCM (or one of its affiliates), though not obligated to do so, may maintain a secondary market in the Notes after the Issue Date. The amount that you may receive upon sale of your Notes prior to maturity may be less than the principal amount of your Notes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Listing:                               | The Notes will not be listed on any securities exchange.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 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 prospectus dated September 7, 2018).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Terms Incorporated in the Master Note: | All of the terms appearing above the item captioned “Secondary Market” on pages P-2 and P-3 of this pricing supplement and the terms appearing under the caption “General Terms of the Notes” in the product prospectus supplement dated September 7, 2018, as modified by this pricing supplement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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Buffered Booster Notes  
Linked to the EURO STOXX 50® Index  
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#### ADDITIONAL TERMS OF YOUR NOTES

You should read this pricing supplement together with the prospectus dated September 7, 2018, as supplemented by the prospectus supplement dated September 7, 2018 and the product prospectus supplement dated September 7, 2018, relating to our Senior Global Medium-Term Notes, Series H, of which these Notes are a part. Capitalized terms used but not defined in this pricing supplement will have the meanings given to them in the product prospectus supplement. In the event of any conflict, this pricing supplement will control. The Notes vary from the terms described in the product prospectus supplement in several important ways. You should read this pricing supplement carefully.

This pricing supplement, together with the documents listed below, contains the terms of the Notes and supersedes all prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in “Risk Factors” in the prospectus supplement dated September 7, 2018 and “Additional Risk Factors Specific to the Notes” in the product prospectus supplement dated September 7, 2018, as the Notes involve risks not associated with conventional debt securities. We urge you to consult your investment, legal, tax, accounting and other advisors before you invest in the Notes. You may access these documents on the Securities and Exchange Commission (the “SEC”) website at [www.sec.gov](http://www.sec.gov) as follows (or if that address has changed, by reviewing our filings for the relevant date on the SEC website):

Prospectus dated September 7, 2018:

<https://www.sec.gov/Archives/edgar/data/1000275/000121465918005973/196181424b3.htm>

Prospectus Supplement dated September 7, 2018:

<https://www.sec.gov/Archives/edgar/data/1000275/000121465918005975/f97180424b3.htm>

Product Prospectus Supplement ERN-EI-1 dated September 7, 2018:

<https://www.sec.gov/Archives/edgar/data/1000275/000114036118038044/form424b5.htm>

Our Central Index Key, or CIK, on the SEC website is 1000275. As used in this pricing supplement, “we,” “us,” or “our” refers to Royal Bank of Canada.

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Buffered Booster Notes  
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#### HYPOTHETICAL RETURNS

The examples set out below are included for illustration purposes only. The hypothetical Percentage Changes of the Reference Asset used to illustrate the calculation of the Payment at Maturity (rounded to two decimal places) are not estimates or forecasts of the Final Level or the level of the Reference Asset on any trading day prior to the Maturity Date. All examples reflect the Buffer Percentage of 25.00%, resulting in a Buffer Level of 75.00% of the Initial Level, the Booster Coupon of 60%, and assume that a holder purchased Notes with an aggregate principal amount of \$1,000 and that no market disruption event occurs on the Valuation Date.

Example 1 Calculation of the Payment at Maturity where the Percentage Change is positive, and greater than the Booster Coupon.

Percentage Change: 65%

Payment at Maturity:  $\$1,000 + (\$1,000 \times 65\%) = \$1,000 + \$650.00 = \$1,650.00$

On a \$1,000 investment, a 65% Percentage Change results in a Payment at Maturity of \$1,650.00, a 65% return on the Notes. This return is equal to the Percentage Change.

Example 2 Calculation of the Payment at Maturity where the Percentage Change is positive, but less than the Booster Coupon.

Percentage Change: 15%

Payment at Maturity:  $\$1,000 + (\$1,000 \times 60\%) = \$1,000 + \$600.00 = \$1,600.00$

On a \$1,000 investment, a 15% Percentage Change results in a Payment at Maturity of \$1,600.00, a 60% return on the Notes. This return is greater than the Percentage Change.

Example 3 Calculation of the Payment at Maturity where the Percentage Change is negative (but not by more than the Buffer Percentage).

Percentage Change: -10%

Payment at Maturity: At maturity, if the Percentage Change is negative BUT not by more than the Buffer Percentage, then the Payment at Maturity will equal the principal amount.

On a \$1,000 investment, a -10% Percentage Change results in a Payment at Maturity of \$1,000, a 0% return on the Notes.

Example 4 Calculation of the Payment at Maturity where the Percentage Change is negative (by more than the Buffer Percentage).

Percentage Change: -40%

Payment at Maturity:  $\$1,000 + [\$1,000 \times (-40\% + 25.00\%)] = \$1,000 - \$150.00 = \$850.00$

On a \$1,000 investment, a -40% Percentage Change results in a Payment at Maturity of \$850.00, a -15.00% return on the Notes.

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Royal Bank of Canada

## SELECTED RISK CONSIDERATIONS

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the Reference Asset. These risks are explained in more detail in the section “Additional Risk Factors Specific to the Notes,” beginning on page PS-4 of the product prospectus supplement. In addition to the risks described in the prospectus supplement and the product prospectus supplement, you should consider the following:

**Principal at Risk** – Investors in the Notes could lose a substantial portion of their principal amount if there is a decline in the level of the Reference Asset. You will lose 1% of the principal amount of the Notes for each 1% that the Final Level is less than the Initial Level by more than 25%.

**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 the Notes, which could be negative, may be less than the return you could earn on other investments. Your return may be less than the return you would earn if you bought a conventional senior interest bearing debt security of Royal Bank.

**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 after the Pricing Date. No assurance can be given as to what our financial condition will be at the maturity of the Notes.

**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. RBCCM and other affiliates of Royal Bank may make a market for the Notes; however, they are not required to do so. RBCCM 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.

**You Will Not Have Any Rights to the Securities Included in the Reference Asset** – As a holder of the Notes, you will not have voting rights or rights to receive cash dividends or other distributions or other rights that holders of securities included in the Reference Asset would have. The Final Level will not reflect any dividends paid on the securities included in the Reference Asset.

**The Initial Estimated Value of the Notes Is Less than the Price to the Public** – The initial estimated value set forth on the cover page of this pricing supplement does not represent a minimum price at which we, RBCCM or any of our affiliates would be willing to purchase the Notes in any secondary market (if any exists) at any time. If you attempt to sell the Notes prior to maturity, their market value may be lower than the price you paid for them and the initial estimated value. This is due to, among other things, changes in the level of the Reference Asset, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to the public of the underwriting discount and the estimated costs relating to our hedging of the Notes. These factors, together with various credit, market and economic factors over the term of the Notes, are expected to reduce the price at which you may be able to sell the Notes in any secondary market and will affect the value of the Notes in complex and unpredictable ways. 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 may be less than your original purchase price, as any such sale price would not be expected to include the underwriting discount and the hedging costs relating to the Notes. In addition to bid-ask spreads, the value of the Notes determined by RBCCM for any secondary market price is expected to be based on the secondary rate rather than the internal funding rate used to price the Notes and determine the initial estimated value. As a result, the secondary price will be less than if the internal funding rate was used. The Notes are not designed to be short-term

trading instruments. Accordingly, you should be able and willing to hold your Notes to maturity.

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Buffered Booster Notes  
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The Initial Estimated Value of the Notes Is an Estimate Only, Calculated as of the Time the Terms of the Notes Were Set – The initial estimated value of the Notes is based on the value of our obligation to make the payments on the Notes, together with the mid-market value of the derivative embedded in the terms of the Notes. See “Structuring the Notes” below. Our estimate is based on a variety of assumptions, including our credit spreads, expectations as to dividends, interest rates and volatility, and the expected term of the Notes. These assumptions are based on certain forecasts about future events, which may prove to be incorrect. Other entities may value the Notes or similar securities at a price that is significantly different than we do.

The value of the Notes at any time after the Pricing Date will vary based on many factors, including changes in market conditions, and cannot be predicted with accuracy. As a result, the actual value you would receive if you sold the Notes in any secondary market, if any, should be expected to differ materially from the initial estimated value of your Notes.

An Investment in the Notes Is Subject to Risks Relating to Non-U.S. Securities Markets – Because foreign companies or foreign equity securities included in the Reference Asset are publicly traded in the applicable foreign countries and are denominated in euros, an investment in the Notes involves particular risks. For example, the non-U.S. securities markets may be more volatile than the U.S. securities markets, and market developments may affect these markets differently from the U.S. or other securities markets. Direct or indirect government intervention to stabilize the securities markets outside the U.S., as well as cross-shareholdings in certain companies, may affect trading prices and trading volumes in those markets. Also, the public availability of information concerning the foreign issuers may vary depending on their home jurisdiction and the reporting requirements imposed by their respective regulators. In addition, the foreign issuers may be subject to accounting, auditing and financial reporting standards and requirements that differ from those applicable to U.S. reporting companies.

Inconsistent Research – Royal Bank or its affiliates may issue research reports on securities that are, or may become, components of the Reference Asset. We may also publish research from time to time on financial markets and other matters that may influence the levels of the Reference Asset or the value of the Notes, or express opinions or provide recommendations that may be inconsistent with the purchasing or holding the Notes or with the investment view implicit in the Notes or the Reference Asset. You should make your own independent investigation of the merits of investing in the Notes and the Reference Asset.

Market Disruption Events and Adjustments – The payment at maturity and the Valuation Date are subject to adjustment as described in the product prospectus supplement. For a description of what constitutes a market disruption event as well as the consequences of that market disruption event, see “General Terms of the Notes—Market Disruption Events” in the product prospectus supplement.

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Buffered Booster Notes  
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#### INFORMATION REGARDING THE REFERENCE ASSET

All disclosures contained in this document regarding the Reference Asset, including, without limitation, its make up, method of calculation, and changes in its components, have been derived from publicly available sources. The information reflects the policies of, and is subject to change by, STOXX Limited, as the sponsor of the Reference Asset (“STOXX”). STOXX, which owns the copyright and all other rights to the Reference Asset, has no obligation to continue to publish, and may discontinue publication of, the Reference Asset. The consequences of STOXX discontinuing publication of the Reference Asset are discussed in the section of the product prospectus supplement entitled “General Terms of the Notes—Unavailability of the Level of the Reference Asset.” Neither we nor RBCCM accepts any responsibility for the calculation, maintenance or publication of the Reference Asset or any successor index.

The Reference Asset was created by STOXX Limited, a subsidiary of Deutsche Börse AG. Publication of the Reference Asset began in February 1998, based on an initial index level of 1,000 at December 31, 1991.

#### Composition and Maintenance

The Reference Asset is composed of 50 component stocks of market sector leaders from within the 19 EURO STOXX® Supersector indices, which represent the Eurozone portion of the STOXX Europe 600® Supersector indices. The composition of the Reference Asset is reviewed annually, based on the closing stock data on the last trading day in August. The component stocks are announced on the first trading day in September. Changes to the component stocks are implemented on the third Friday in September and are effective the following trading day. Changes in the composition of the Reference Asset are made to ensure that the Reference Asset includes the 50 market sector leaders from within the Reference Asset.

The free float factors for each component stock used to calculate the Reference Asset, as described below, are reviewed, calculated, and implemented on a quarterly basis and are fixed until the next quarterly review.

The Reference Asset is also reviewed on an ongoing monthly basis. Corporate actions (including initial public offerings, mergers and takeovers, spin-offs, delistings, and bankruptcy) that affect the Reference Asset composition are announced immediately, implemented two trading days later and become effective on the next trading day after implementation.

#### Calculation of the Reference Asset

The Reference Asset is calculated with the “Laspeyres formula,” which measures the aggregate price changes in the component stocks against a fixed base quantity weight. The formula for calculating the Reference Asset value can be expressed as follows:

$$\text{Reference Asset} = \frac{\text{Free float market capitalization of the Reference Asset}}{\text{Divisor}}$$

The “free float market capitalization of the Reference Asset” is equal to the sum of the products of the price, the number of shares, the free float factor and the weighting cap factor for each component stock as of the time the Reference Asset is being calculated.

The Reference Asset is also subject to a divisor, which is adjusted to maintain the continuity of the Reference Asset values across changes due to corporate actions, such as the deletion and addition of stocks, the substitution of stocks, stock dividends, and stock splits.

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#### License Agreement

We have entered into a non-exclusive license agreement with STOXX providing for the license to us and certain of our affiliated or subsidiary companies, in exchange for a fee, of the right to use indices owned and published by STOXX (including the Reference Asset) in connection with certain securities, including the Notes offered hereby. The license agreement between us and STOXX requires that the following language be stated in this document: STOXX has no relationship to us, other than the licensing of the Reference Asset and the related trademarks for use in connection with the Notes. STOXX does not:

- sponsor, endorse, sell, or promote the Notes;
- recommend that any person invest in the Notes offered hereby or any other securities;
- have any responsibility or liability for or make any decisions about the timing, amount, or pricing of the Notes;
- have any responsibility or liability for the administration, management, or marketing of the Notes; or
- consider the needs of the Notes or the holders of the Notes in determining, composing, or calculating the Reference Asset, or have any obligation to do so.

STOXX will not have any liability in connection with the Notes. Specifically:

- STOXX does not make any warranty, express or implied, and disclaims any and all warranty concerning: the results to be obtained by the Notes, the holders of the Notes or any other person in connection with the use of the Reference Asset and the data included in the Reference Asset;
- the accuracy or completeness of the Reference Asset and its data;
- the merchantability and the fitness for a particular purpose or use of the Reference Asset and its data;
- STOXX will have no liability for any errors, omissions, or interruptions in the Reference Asset or its data; and
- Under no circumstances will STOXX be liable for any lost profits or indirect, punitive, special, or consequential damages or losses, even if STOXX knows that they might occur.

The licensing agreement between us and STOXX is solely for their benefit and our benefit, and not for the benefit of the holders of the Notes or any other third parties.

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Buffered Booster Notes  
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#### Historical Information

The graph below sets forth the information relating to the historical performance of the Reference Asset. The graph below shows the daily historical closing levels of the Reference Asset from January 1, 2018 through November 28, 2018.

We obtained the information regarding the historical performance of the Reference Asset in the chart below from Bloomberg Financial Markets. We have not independently verified the accuracy or completeness of the information obtained from Bloomberg Financial Markets. The historical performance of the Reference Asset should not be taken as an indication of its future performance, and no assurance can be given as to the Final Level of the Reference Asset. We cannot give you assurance that the performance of the Reference Asset will result in any positive return on your initial investment.

EURO STOXX 50® Index (“SX5E”)

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Buffered Booster Notes  
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#### SUPPLEMENTAL DISCUSSION OF U.S. FEDERAL INCOME TAX CONSEQUENCES

The following disclosure supplements, and to the extent inconsistent supersedes, the discussion in the product prospectus supplement dated September 7, 2018 under “Supplemental Discussion of U.S. Federal Income Tax Consequences.”

Under Section 871(m) of the Code, a “dividend equivalent” payment is treated as a dividend from sources within the United States. Such payments generally would be subject to a 30% U.S. withholding tax if paid to a non-U.S. holder. Under U.S. Treasury Department regulations, payments (including deemed payments) with respect to equity-linked instruments (“ELIs”) that are “specified ELIs” may be treated as dividend equivalents if such specified ELIs reference an interest in an “underlying security,” which is generally any interest in an entity taxable as a corporation for U.S. federal income tax purposes if a payment with respect to such interest could give rise to a U.S. source dividend. However, the IRS has issued guidance that states that the U.S. Treasury Department and the IRS intend to amend the effective dates of the U.S. Treasury Department regulations to provide that withholding on dividend equivalent payments will not apply to specified ELIs that are not delta-one instruments and that are issued before January 1, 2021. Based on our determination that the Notes are not delta-one instruments, non-U.S. holders should not be subject to withholding on dividend equivalent payments, if any, under the Notes. However, it is possible that the Notes could be treated as deemed reissued for U.S. federal income tax purposes upon the occurrence of certain events affecting the Reference Asset or the Notes (for example, upon the Reference Asset rebalancing), and following such occurrence the Notes could be treated as subject to withholding on dividend equivalent payments. Non-U.S. holders that enter, or have entered, into other transactions in respect of the Reference Asset or the Notes should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the Notes and their other transactions. If any payments are treated as dividend equivalents subject to withholding, we (or the applicable withholding agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

#### SUPPLEMENTAL PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

Delivery of the Notes will be made against payment for the Notes on November 30, 2018, which is the second (2nd) business day following the Pricing Date (this settlement cycle being referred to as “T+2”). See “Plan of Distribution” in the prospectus dated September 7, 2018. For additional information as to the relationship between us and RBCCM, please see the section “Plan of Distribution—Conflicts of Interest” in the prospectus dated September 7, 2018. In the initial offering of the Notes, they will be offered to investors at a purchase price equal to par, except with respect to certain accounts as indicated on the cover page of this document.

The value of the Notes shown on your account statement may be based on RBCCM’s estimate of the value of the Notes if RBCCM or another of our affiliates were to make a market in the Notes (which it is not obligated to do). That estimate will be based upon the price that RBCCM may pay for the Notes in light of then prevailing market conditions, our creditworthiness and transaction costs. For a period of approximately 12 months after the issue date of the Notes, the value of the Notes that may be shown on your account statement may be higher than RBCCM’s estimated value of the Notes at that time. This is because the estimated value of the Notes will not include the underwriting discount and our hedging costs and profits; however, the value of the Notes shown on your account statement during that period may initially be a higher amount, reflecting the addition of RBCCM’s underwriting discount and our estimated costs and profits from hedging the Notes. This excess is expected to decrease over time until the end of this period. After this period, if RBCCM repurchases your Notes, it expects to do so at prices that reflect their estimated value.

We may use this pricing supplement in the initial sale of the Notes. In addition, RBCCM or another of our affiliates may use this pricing supplement in a market-making transaction in the Notes after their initial sale. Unless we or our agent informs the purchaser otherwise in the confirmation of sale, this pricing supplement is being used in a

market-making transaction.

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Buffered Booster Notes  
Linked to the EURO STOXX 50® Index  
Royal Bank of Canada

## STRUCTURING THE NOTES

The Notes are our debt securities, the return on which is linked to the performance of the Reference Asset. As is the case for all of our debt securities, including our structured notes, the economic terms of the Notes reflect our actual or perceived creditworthiness at the time of pricing. In addition, because structured notes result in increased operational, funding and liability management costs to us, we typically borrow the funds under these Notes at a rate that is more favorable to us than the rate that we might pay for a conventional fixed or floating rate debt security of comparable maturity. Using this relatively lower implied borrowing rate rather than the secondary market rate, is a factor that reduced the initial estimated value of the Notes at the time their terms were set. Unlike the estimated value included in this pricing supplement, any value of the Notes determined for purposes of a secondary market transaction may be based on a different funding rate, which may result in a lower value for the Notes than if our initial internal funding rate were used.

In order to satisfy our payment obligations under the Notes, we may choose to enter into certain hedging arrangements (which may include call options, put options or other derivatives) on the issue date with RBCCM or one of our other subsidiaries. The terms of these hedging arrangements take into account a number of factors, including our creditworthiness, interest rate movements, the volatility of the Reference Asset, and the tenor of the Notes. The economic terms of the Notes and their initial estimated value depend in part on the terms of these hedging arrangements.

The lower implied borrowing rate is a factor that reduced the economic terms of the Notes to you. The initial offering price of the Notes also reflects the underwriting discount and our estimated hedging costs. These factors resulted in the initial estimated value for the Notes on the Pricing Date being less than their public offering price. See “Selected Risk Considerations—The Initial Estimated Value of the Notes Is Less than the Price to the Public” above.

## VALIDITY OF THE NOTES

In the opinion of Norton Rose Fulbright 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 and delivered against payment therefor, 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 equitable remedies which may only be granted at the discretion of a court of competent authority, subject to applicable bankruptcy, to rights to indemnity and contribution under the Notes or the Indenture which may be limited by applicable law; to insolvency and other laws of general application affecting creditors' rights, to limitations under applicable limitations statutes, and 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 Québec 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 September 7, 2018, which has been filed as Exhibit 5.1 to Royal Bank's Form 6-K filed with the SEC dated September 7, 2018. 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 September 7, 2018, which has been filed as Exhibit 5.2 to the

Bank's Form 6-K dated September 7, 2018.

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