

ROYAL BANK OF CANADA  
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 January 15, 2019

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 January 11, 2019

Pricing Supplement

(To the Prospectus dated September 7, 2018, the Prospectus Supplement dated September 7, 2018, and the Product Prospectus Supplement dated October 18, 2018)

\$2,215,000  
 Contingent Digital Return Buffer Notes Due January 29, 2020  
 Linked to a Basket of Three Common Equity Securities  
 Royal Bank of Canada Senior Global Medium-Term Notes, Series H

General

The Notes are designed for investors who seek to receive a Contingent Digital Return at maturity based on the performance of the basket of stocks (the “Basket”) set forth below. Investors should be willing to forgo interest and dividend payments and, if the value of the Basket declines by more than 20%, be willing to lose some or all of their principal.

- Senior unsecured obligations of Royal Bank of Canada maturing on January 29, 2020.<sup>(a)</sup>
- Minimum denominations of \$10,000 and integral multiples of \$1,000 in excess thereof.
- The Notes priced on January 11, 2019 (the “pricing date”) and will be issued on January 16, 2019 (the “issue date”).

Key Terms

Terms used in this pricing supplement, but not defined herein, will have the meanings ascribed to them in the product prospectus supplement.

Issuer:

Royal Bank of Canada  
 A basket consisting of the common stocks of:  
 Amazon.com, Inc.  
 (Bloomberg symbol: “AMZN”), Facebook, Inc.  
 (Bloomberg symbol: “FB”) and Alphabet Inc.

Reference Asset and

Component Weightings:

(Bloomberg symbol: GOOG). Each common stock is a “Basket Component.” The component weighting of each Basket Component is 1/3.

Contingent Digital Return:

7.55%

Payment at Maturity:

If the Percentage Change is greater than or equal to -20%, you will receive a cash payment that provides you the Contingent Digital Return. Accordingly, if

the Final Basket Level is greater than or equal to the Buffer Level, your payment per \$1,000 in principal amount of the Notes will be \$1,075.50, calculated as follows:  
 $\$1,000 + (\$1,000 \times \text{Contingent Digital Return})$

However, if the Percentage Change is less than -20%, you will lose 1.25% of the principal amount of your Notes for every 1% that the Final Basket Level declines from the Initial Basket Level by more than the Buffer Percentage.

Accordingly, if the Percentage Change is less than -20%, your payment per \$1,000 in principal amount of the Notes will be calculated as follows:  
 $\$1,000 + [\$1,000 \times ((\text{Percentage Change} + \text{Buffer Percentage}) \times \text{Downside Multiplier})]$

In this case, you may lose a significant portion, or possibly even all, of the principal amount. Any payment on the Notes, including any repayment of principal, is subject to the creditworthiness of the Issuer and is not guaranteed by any third party.

- Buffer Level: 80, which is 80% of the Initial Basket Level.
- Buffer Percentage: 20%
- Downside Multiplier: 1 divided by 0.80, which equals 1.25.
- Percentage Change: The performance of the Reference Asset from the Initial Basket Level to the Final Basket Level, calculated as follows:

Final Basket Level — Initial  
Basket Level

Initial Basket Level: 100  
The Final Basket Level  
will be calculated as  
follows:

$100 \times [1 + (\text{the sum of, for each Basket Component, the Basket Component return multiplied by its component weighting})]$

Final Basket Level: Each of the Basket Component returns set forth above refers to the percentage change from the applicable Initial Level to the applicable Final Level, calculated as follows:

Final Level — Initial Level

Initial Level: \$1,640.56 with respect to AMZN, \$143.80 with respect to FB, and \$1,057.19 with respect to GOOG, each of which was its respective closing price on the pricing date, as determined by the calculation agent.

Final Level: For each Basket Component, the average of its closing prices on the valuation dates, as determined by the calculation agent.

Valuation Dates: January 17, 2020, January 21, 2020, January 22, 2020, January 23, 2020 and January 24, 2020 (the “final valuation date<sup>(a)</sup>”)

Maturity Date: January 29, 2020<sup>(a)</sup>

Calculation Agent: RBC Capital Markets, LLC (“RBCCM”)

CUSIP/ISIN: 78013XXC7 / US78013XXC72

Estimated Value: The initial estimated value of the Notes as of

the date of this document is \$988.97 per \$1,000 in principal amount. 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.

(a) Subject to postponement if a market disruption event occurs, as described under “General Terms of the Notes—Market Disruption Events” in the product prospectus supplement.

Investing in the Notes involves a number of risks. See “Risk Factors” beginning on page PS-4 of the product prospectus supplement, beginning on page S-1 of the prospectus supplement and on page 1 of the prospectus, and “Selected Risk Considerations” beginning on page PS-4 of this pricing supplement.

The Notes will not be listed on any U.S. securities exchange or quotation system. Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the Notes or determined that this document is truthful or complete. Any representation to the contrary is a criminal offense.

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.

	Price to Public <sup>1</sup>	Underwriting Commission <sup>2</sup>	Proceeds to Royal Bank of Canada
Per Note \$1,000	\$10.00		\$990
Total	\$2,215,000	\$22,150	\$2,192,850

<sup>1</sup> Certain fiduciary accounts purchasing the Notes will pay a purchase price of \$990 per Note, and the placement agents will forgo any fees with respect to sales made to those accounts. The price to the public for all other purchases of the Notes is 100%.

<sup>2</sup> JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC and their affiliates will act as placement agents for the Notes and will receive a fee from the Issuer that will not exceed \$10 per \$1,000 in principal amount of the Notes, but will forgo any fees for sales to certain fiduciary accounts.

RBC Capital Markets, LLC JPMorgan Chase Bank, N.A. J.P. Morgan Securities LLC  
Placement Agents

ADDITIONAL TERMS OF THE 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 October 18, 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. 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 in the product prospectus supplement dated October 18, 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-ES-1 dated October 18, 2018:

<https://www.sec.gov/Archives/edgar/data/1000275/000114036118040853/form424b5.htm>

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

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What Are the Payments on the Notes at Maturity Assuming a Range of Performance for the Reference Asset?

The following table illustrates the hypothetical payment and total return at maturity on the Notes. The “total return,” as used in this pricing supplement, is the number, expressed as a percentage, that results from comparing the payment at maturity per \$1,000 in principal amount of the Notes to \$1,000. The hypothetical total returns and examples set forth below are based on the Initial Basket Level of 100, the Buffer Level of 80, the Contingent Digital Return of 7.55%, and the hypothetical Final Basket Levels as set forth below. The actual Final Basket Level will be determined based on the arithmetic average of the closing price of each Basket Component on the valuation dates.

The hypothetical total returns and examples set forth below are for illustrative purposes only and may not be the actual total returns applicable to a purchaser of the Notes. The numbers appearing in the following table and examples have been rounded for ease of analysis. The examples below do not take into account any tax consequences from investing in the Notes.

Final Basket Level	Percentage Change	Payment at Maturity	Total Return on the Notes
150.00	50.00%	\$1,075.50	7.55%
140.00	40.00%	\$1,075.50	7.55%
130.00	30.00%	\$1,075.50	7.55%
120.00	20.00%	\$1,075.50	7.55%
110.00	10.00%	\$1,075.50	7.55%
107.55	7.55%	\$1,075.50	7.55%
105.00	5.00%	\$1,075.50	7.55%
100.00	0.00%	\$1,075.50	7.55%
95.00	-5.00%	\$1,075.50	7.55%
90.00	-10.00%	\$1,075.50	7.55%
80.00	-20.00%	\$1,075.50	7.55%
70.00	-30.00%	\$875.00	-12.50%
60.00	-40.00%	\$750.00	-25.00%
50.00	-50.00%	\$625.00	-37.50%
40.00	-60.00%	\$500.00	-50.00%
30.00	-70.00%	\$375.00	-62.50%
20.00	-80.00%	\$250.00	-75.00%
10.00	-90.00%	\$125.00	-87.50%
0.00	-100.00%	\$0.00	-100.00%

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#### Hypothetical Examples of Amounts Payable at Maturity

The following examples illustrate how the payments set forth in the table above are calculated.

Example 1: The value of the Basket increases from the Initial Basket Level to a Final Basket Level of 150.00, resulting in a Percentage Change of 50.00%.

Because the Percentage Change is greater than or equal to -20%, the investor receives a payment at maturity of \$1,075.50 per \$1,000 in principal amount of the Notes, calculated as follows:

$$\$1,000 + (\$1,000 \times 7.55\%) = \$1,075.50$$

In this case, the return on the Notes is less than the Percentage Change of the Reference Asset.

Example 2: The value of the Basket decreases from the Initial Basket Level to a Final Basket Level of 95.00, resulting in a Percentage Change of -5.00%.

Because the Percentage Change is greater than or equal to -20%, the investor receives a payment at maturity of \$1,075.50 per \$1,000 in principal amount of the Notes, calculated as follows:

$$\$1,000 + (\$1,000 \times 7.55\%) = \$1,075.50$$

In this case, your return on the Notes is positive, even though the Percentage Change is negative.

Example 3: The value of the Basket decreases from the Initial Basket Level to a Final Basket Level of 60.00, resulting in a Percentage Change of -40.00%.

Because the Percentage Change is less than -20%, for each \$1,000 in principal amount, the investor will receive, for each \$1,000 in principal amount of the notes:

$$\$1,000 + [\$1,000 \times ((-40 + 20) \times 1.25)] = \$750.00$$

In this case, the amount that will be paid on the Notes will be significantly less than the principal amount.

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### Selected Purchase Considerations

**Appreciation Potential** — The Notes provide the opportunity to receive the Contingent Digital Return if the Final Basket Level is greater than or equal to the Buffer Level.

**Limited Protection Against Loss** — Payment at maturity of the principal amount of the Notes is protected against a decline in the Final Basket Level, as compared to the Initial Basket Level, of up to the Buffer Percentage. If the Final Basket Level is less than the Initial Basket Level by more than the Buffer Percentage, the amount of cash that you will receive at maturity will represent a loss of 1.25% of the principal amount for each 1% that the Percentage Change is less than -20%. Because the Notes are our senior unsecured obligations, payment of any amount at maturity is subject to our ability to pay our obligations as they become due and is not guaranteed by any third party. For a description of the risks with respect to our credit, see “Selected Risk Considerations—Credit of Issuer” in this pricing supplement.

### 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 “Risk Factors” 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 all or a substantial portion of their principal amount if the value of the Basket decreases by more than 20%. If the Percentage Change is less than -20%, the amount of cash that you will receive at maturity will represent a loss of 1.25% of the principal amount for each 1% that the Percentage Change is less than -20%.

**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 one of our conventional senior interest bearing debt securities.

**Your Potential Payment at Maturity Is Limited** — The Notes will provide less opportunity to participate in increases in the value of the Basket than an investment in the Basket Components or a security linked to the Basket Components providing full participation in the appreciation, because any positive return on the Notes will be fixed as the Contingent Digital Return. Accordingly, your return on the Notes may be less than your return would be if you made an investment in the Basket Components, or such a linked security.

**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 our senior unsecured debt securities. As a result, your receipt of the amount due on the maturity date is dependent upon our ability to repay our obligations at that time. This will be the case even if the value of the Basket 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 our other affiliates may make a market for the Notes; however, they are not required to do so. RBCCM or any other affiliate 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.

**Changes in the Price of One Basket Component May Be Offset by Changes in the Prices of the Other Basket Components** — The prices of the Basket Components may offset each other. The price of one Basket Component may increase, while the prices of one or both of the other Basket Components may decrease, reducing the value of the Basket.

**Owning the Notes Is Not the Same as Owning Shares of the Basket Components** — The return on your Notes may not reflect the return you would realize if you actually owned shares of the Basket Components. For instance, as a holder of the Notes, you will not have voting rights, rights to receive cash dividends or other distributions, or any other rights that holders of these shares would have. Further, you will not participate in any appreciation of the value of the Basket above the percentage represented by the Contingent Digital Return.



There Is No Affiliation Between Us and the Issuers of the Basket Components, and We Are Not Responsible for any Disclosure by Those Companies — We are not affiliated with the issuers of the Basket

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Components. However, we and our affiliates may currently, or from time to time in the future engage in business with those issuers. Nevertheless, neither we nor our affiliates assume any responsibilities for the accuracy or the completeness of any information about the Basket Components or their issuers that those issuers prepare. You, as an investor in the Notes, should make your own investigation into the Basket Components and their issuers. Those issuers are not involved in this offering and have no obligation of any sort with respect to the Notes. Those issuers have no obligation to take your interests into consideration for any reason, including when taking any corporate actions that might affect the value of your Notes.

**Risks Associated with Individual Stocks** — The value of the Basket can rise or fall sharply due to factors specific to the Basket Components and their issuers, such as stock price volatility, earnings, financial conditions, corporate, industry and regulatory developments, management changes and decisions and other events, as well as general market factors, such as general stock market volatility and levels, interest rates and economic and political conditions. We urge you to review financial and other information filed periodically with the SEC by the applicable issuers.

**Many Economic and Market Factors Will Impact the Value of the Notes** — In addition to the value of the Basket on any day, the value of the Notes will be affected by a number of economic and market factors that may either offset or magnify each other, including:

- the expected volatility of the Basket Components;
- the time to maturity of the Notes;
- the dividend rate on the Basket Components;
- interest and yield rates in the market generally;
- a variety of economic, financial, political, regulatory or judicial events; and
- our creditworthiness, including actual or anticipated downgrades in our credit ratings.

**The Initial Estimated Value of the Notes Is Less than the Price to the Public** — The initial estimated value that is 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 value of the Basket, 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 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. The Notes are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Notes to maturity.

**The Initial Estimated Value of the Notes Is an Estimate Only, Calculated as of the Pricing Date** — 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.

**Market Disruption Events and Adjustments** — The payment at maturity, the valuation dates and the Basket Components 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 on a valuation date, see “General Terms of the Notes—Market Disruption Events” in the product prospectus supplement.

**Anti-dilution Adjustments** — For certain corporate events affecting a Basket Component, the calculation agent may make adjustments to the terms of the Notes. However, the calculation agent will not make such adjustments in response to all events that could affect a Basket Component. If an event occurs that does not require the calculation agent to make such adjustments, the value of the Notes may be materially and adversely affected. In addition, all determinations and calculations concerning any such adjustments will be made in the sole discretion of the calculation agent, which will be binding on you absent manifest error. You should be aware that the calculation agent may make any such adjustment, determination or calculation in a manner that differs from that discussed in this pricing supplement or the product prospectus supplement as necessary to achieve an equitable result.

The Business Activities of Royal Bank and Our Affiliates May Create Conflicts of Interest — We and our affiliates expect to engage in trading activities related to the Basket 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 value of the Basket, 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 Basket Components, including making loans to or providing advisory services. 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 one or more of the Basket 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 may affect the value of the Basket and, therefore, the market value of the Notes.

Additionally, we or our affiliates may serve as issuer, agent or underwriter for additional issuances of securities with returns linked or related to changes in the value of the Basket. By introducing competing products into the marketplace in this manner, we could adversely affect the value of the Notes.

We may hedge our obligations under the Notes through certain affiliates, who would expect to make a profit on such hedge. We or our affiliates may adjust these hedges by, among other things, purchasing or selling those assets at any time, including around the time of the valuation dates, which could have an impact on the return of the Notes. Because hedging our obligations entails risk and may be influenced by market forces beyond our or our affiliates' control, such hedging may result in a profit that is more or less than expected, or it may result in a loss.

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Information Regarding the Basket Components

Each of the Basket Components is registered under the Securities Exchange Act of 1934 (the “Exchange Act”). Companies with securities registered under that Act are required to file periodically certain financial and other information specified by the Securities and Exchange Commission (the “SEC”). Information provided to or filed with the SEC can be obtained through the SEC’s website at [www.sec.gov](http://www.sec.gov). In addition, information regarding the Basket Components may be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents.

The following information regarding the Basket Components and their issuers has been derived from publicly available information. We have not independently verified the accuracy or completeness of reports filed by these issuers with the SEC, information published by them on their websites or in any other format, information about them obtained from any other source, or the information provided below.

We obtained the information regarding the historical performance of the Basket Components in the graphs 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 Basket Components should not be taken as an indication of future performance, and no assurance can be given as to the closing value of the Basket on any valuation date. We cannot give you assurance that the performance of the Basket will not result in the loss of all or part of your investment.

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Amazon.com, Inc.

Amazon.com, Inc. is an online retailer that offers a wide range of products. The company's products include books, music, videotapes, computers, electronics, home and garden products, and numerous other products. The company offers personalized shopping services, Web-based credit card payment, and direct shipping to customers.

The common stock of AMZN trades on the Nasdaq.

The following graph sets forth the closing prices of this Basket Component from January 1, 2009 to January 11, 2019.

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Facebook, Inc.

Facebook, Inc. operates a social networking website. The company's website allows people to communicate with their family, friends, and co-workers. The company develops technologies that facilitate the sharing of information, photographs, website links, and videos.

The common stock of FB trades on the Nasdaq.

The following graph sets forth the closing prices of this Basket Component from January 1, 2009 to January 11, 2019.

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Alphabet Inc.

Alphabet Inc., through its subsidiaries, provides web-based search, advertisements, maps, software applications, mobile operating systems, consumer content, enterprise solutions, commerce, and hardware products.

The company's Class C common stock trades on the Nasdaq under the symbol "GOOG."

The following graph sets forth the closing prices of this Basket Component from March 27, 2014 (the date that it commenced trading) to January 11, 2019.

### Supplemental Plan of Distribution

JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC and its affiliates will act as placement agents for the Notes and will receive a fee from the Issuer of \$10 per \$1,000 in principal amount of the Notes, but will forgo any fees for sales to certain fiduciary accounts.

Delivery of the Notes will be made against payment for the Notes on January 16, 2019, which is the third business day following the pricing date (this settlement cycle being referred to as “T+3”). Under Rule 15c6-1 of the Securities Exchange Act of 1934, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade the Notes on any date prior to two business days before delivery will be required, by virtue of the fact that the Notes will settle in three business days (T+3), to specify alternative settlement arrangements to prevent a failed settlement.

In addition, RBCCM or another of its affiliates or agents may use this document in market-making transactions after the initial sale of the Notes, but is under no obligation to do so and may discontinue any market-making activities at any time without notice.

The value of the Notes shown on your account statement will 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 six months after the issue date of the Notes, the price shown on your account statement may initially be higher than RBCCM’s estimated value of the Notes. This is because the estimated value of the Notes reflects the reduction of the underwriting discount and our hedging costs and profits; however, the value of the Notes shown on your account statement during that period is expected to be a higher amount, reflecting the amortization of the underwriting discount and our estimated profit from hedging the Notes. After this period, if RBCCM repurchases your Notes, it expects to do so at prices that reflect its estimated value.

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. This relatively lower implied borrowing rate, which is reflected in the economic terms of the Notes, along with the fees and expenses associated with structured notes, reduced the initial estimated value of the Notes at the time the terms of the Notes were set.

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 depend in part on the terms of these hedging arrangements.

The lower implied borrowing rate, the underwriting commission and the hedging-related costs relating to the Notes reduced the economic terms of the Notes to you and resulted in the initial estimated value for the Notes 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.



### U.S. Federal Tax Consequences

The following disclosure supplements, and to the extent inconsistent supersedes, the discussion in the product prospectus supplement dated October 18, 2018 under “Supplemental Discussion of U.S. Federal Income Tax Consequences.”

In the opinion of our counsel, Morrison & Foerster LLP, it would generally be reasonable to treat a Note with terms described herein as a pre-paid cash-settled derivative contract in respect of the Reference Asset for U.S. federal income tax purposes, and the terms of the Notes require a holder and us (in the absence of a change in law or an administrative or judicial ruling to the contrary) to treat the Notes for all tax purposes in accordance with such characterization. However, the U.S. federal income tax consequences of your investment in the Notes are uncertain and the IRS could assert that the Notes should be taxed in a manner that is different from that described in the preceding sentence.

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, 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.

The accompanying product prospectus supplement notes that FATCA withholding on payments of gross proceeds from a sale or redemption of Notes will only apply to payments made after December 31, 2018. That discussion is modified to reflect regulations proposed by the U.S. Treasury Department in December 2018 indicating an intent to eliminate the requirement under FATCA of withholding on gross proceeds of the disposition of financial instruments. The U.S. Treasury Department has indicated that taxpayers may rely on these proposed regulations pending their finalization. Prospective investors are urged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in the Notes.

#### Terms Incorporated in the Master Note

All of the terms appearing in the section “Key Terms” (except the item captioned “Estimated Value”) and “U.S. Federal Tax Consequences” in this pricing supplement, and the applicable terms included in the product prospectus supplement, the Series H MTN prospectus supplement and the prospectus are incorporated into the master global note that represents the Notes and is held by the Depository Trust Company.

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.