

ROYAL BANK OF CANADA  
Form 424B2  
April 08, 2019

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PRICING SUPPLEMENT

Filed Pursuant to Rule 424(b)(2)

Registration Statement No. 333-227001

Dated April 4, 2019

Royal Bank of Canada Trigger Callable Yield Notes

\$3,700,000 Notes Linked to the Common Stock of International Paper Company due on April 9, 2020

Investment Description

Trigger Callable Yield Notes (the “Notes”) are unsecured and unsubordinated notes issued by Royal Bank of Canada linked to the performance of the common stock of International Paper Company (the “Reference Stock”). The issue price of each Note will be \$10. We will pay you a quarterly coupon regardless of the performance of the Reference Stock. We have the right to call the Notes at our option on any Coupon Payment Date other than the maturity date, regardless of the price of the Reference Stock at that time. If the Notes are not called, we will pay you on the maturity date either the principal amount per Note or, if the closing price of the Reference Stock on the final valuation date is less than the Downside Threshold, we will pay to you an amount of cash reflecting the percentage decrease in the price of the Referenced Stock, plus accrued and unpaid interest. The Notes are not subject to conversion into our common shares under subsection 39.2(2.3) of the Canada Deposit Insurance Corporation Act.

Investing in the Notes involves significant risks. You may lose some or your entire principal amount. In exchange for receiving a coupon on the Notes, you are accepting the risk of receiving an amount of cash that is significantly less than the principal amount of your Notes, and our credit risk for all payments under the Notes. Generally, the higher the coupon rate on a Note, the greater the risk of loss on that Note. The contingent repayment of principal only applies if you hold the Notes until maturity. Any payment on the Notes, including any repayment of principal, is subject to our creditworthiness. If we were to default on its payment obligations, you may not receive any amounts owed to you under the Notes and you could lose your entire investment. The Notes will not be listed on any securities exchange.

Features Key Dates

Income — Regardless of the performance of the Reference Stock, we will pay you a quarterly coupon, unless the Notes have been previously called. In exchange for receiving the quarterly coupon payment on the Notes, you are accepting the risk of losing all or a portion of the principal amount, and our credit risk for all payments under the Notes.

Issuer Callable — We may, at our election, call the Notes on any Coupon Payment Date (other than the final Coupon Payment Date), regardless of the price of the Reference Stock. If we call the Notes, we will pay you the principal amount plus accrued and unpaid interest. If the Notes are called, no further payments will be made after we make the applicable payment.

Contingent Repayment of Principal at Maturity — If the Notes are not previously called and the price of the Reference Stock does not close below the Downside Threshold on the final valuation date, we will pay you the principal amount at maturity, and you will not participate in any appreciation or depreciation in the price of the Reference Stock. If the Notes are not previously called and the price of the Reference Stock closes below the Downside Threshold on the final valuation date, we will pay to you an amount of cash reflecting the decline in the price of the Reference Stock, and you will lose some or all of the principal amount of the Notes. Any payment on the Notes, including any repayment of principal, is subject to our creditworthiness.

Trade Date April 4, 2019

Settlement Date April 9, 2019

Coupon Payment Dates<sup>1</sup> Quarterly

Final Valuation Date<sup>1</sup> April 6, 2020

Maturity Date<sup>1</sup> April 9, 2020

<sup>1</sup> Subject to postponement if a market disruption event occurs, as described under “General Terms of the Notes — Payment at Maturity” in the accompanying product prospectus supplement.

NOTICE TO INVESTORS: THE NOTES ARE SIGNIFICANTLY RISKIER THAN CONVENTIONAL DEBT INSTRUMENTS. WE ARE NOT NECESSARILY OBLIGATED TO REPAY THE FULL PRINCIPAL AMOUNT OF THE NOTES AT MATURITY, AND THE NOTES CAN HAVE THE FULL DOWNSIDE MARKET RISK OF THE REFERENCE STOCK. THIS MARKET RISK IS IN ADDITION TO THE CREDIT RISK INHERENT IN PURCHASING OUR DEBT OBLIGATION. YOU SHOULD NOT PURCHASE THE NOTES IF YOU DO NOT UNDERSTAND OR ARE NOT COMFORTABLE WITH THE SIGNIFICANT RISKS INVOLVED IN INVESTING IN THE NOTES.

YOU SHOULD CAREFULLY CONSIDER THE RISKS DESCRIBED UNDER “KEY RISKS” BEGINNING ON PAGE 6, THE RISKS DESCRIBED UNDER “RISK FACTORS” BEGINNING ON PAGE PS-4 OF THE PRODUCT PROSPECTUS SUPPLEMENT AND UNDER “RISK FACTORS” BEGINNING ON PAGE S-1 OF THE PROSPECTUS SUPPLEMENT BEFORE PURCHASING ANY NOTES. EVENTS RELATING TO ANY OF THOSE RISKS, OR OTHER RISKS AND UNCERTAINTIES, COULD ADVERSELY AFFECT THE MARKET VALUE OF, AND THE RETURN ON, YOUR NOTES. IF THE NOTES ARE NOT CALLED, YOU MAY LOSE SOME OR ALL OF YOUR INITIAL INVESTMENT.

Note Offering

The Notes are offered at a minimum investment of 100 Notes at \$10.00 per Note (representing a \$1,000 investment), and integral multiples of \$10.00 in excess thereof. Coupons will be paid quarterly in 4 equal installments, subject to an earlier call.

Reference Stock	Coupon Rate	Initial Underlying Price	Downside Threshold	CUSIP	ISIN
Common Stock of International Paper Company (IP)	9.60% per annum	\$47.70, which was the closing price of the Reference Stock on April 3, 2019	\$38.16, which is 80% of the initial underlying price	78014H565	US78014H5651

See “Additional Information About Royal Bank of Canada and the Notes” in this pricing supplement. The Notes will have the terms specified in the prospectus dated September 7, 2018, the prospectus supplement dated September 7, 2018, the product prospectus supplement dated October 26, 2018 and this pricing supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the Notes or passed upon the accuracy or the adequacy of this pricing supplement or the accompanying prospectus, prospectus supplement and the product prospectus supplement. Any representation to the contrary is a criminal offense.

Offering of the Notes	Price to Public		Fees and Commissions <sup>(1)</sup>		Proceeds to Us	
	Total	Per Note	Total	Per Note	Total	Per Note
Notes Linked to the Common Stock of International Paper Company (IP)	\$3,700,000	\$10	\$37,000	\$0.10	\$3,663,000	\$9.90

<sup>(1)</sup> UBS Financial Services Inc., which we refer to as UBS, will receive a commission of \$0.10 per \$10 principal amount of each Note. See “Supplemental Plan of Distribution (Conflicts of Interest)” below.

The initial estimated value of the Notes as of the trade date is \$9.8372 per \$10 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 that amount. We describe our determination of the initial estimated value under “Key Risks,” “Supplemental Plan of Distribution (Conflicts of Interest)” and “Structuring the Notes” below.

The Notes will not constitute deposits insured under the Canada Deposit Insurance Corporation Act or by the United States Federal Deposit Insurance Corporation or any other Canadian or United States government agency or instrumentality.

UBS Financial Services Inc. RBC Capital Markets, LLC

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Additional Information About Royal Bank of Canada and 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, relating to our Series H medium-term notes of which these Notes are a part, and the more detailed information contained in the product prospectus supplement. This pricing supplement, together with the documents listed below, contains the terms of the Notes and supersedes all other 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, fact sheets, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in “Risk Factors” in the accompanying product prospectus supplement, as the Notes involve risks not associated with conventional debt securities.

To the extent that the terms discussed in this pricing supplement differ from those discussed in the product prospectus supplement, the prospectus supplement, or the prospectus, the terms discussed herein will control.

You may access these on the SEC website at [www.sec.gov](http://www.sec.gov) as follows (or if such address has changed, by reviewing our filing for the relevant date on the SEC website):

..Product prospectus supplement no. ABYN-2 dated October 26, 2018:

<https://www.sec.gov/Archives/edgar/data/1000275/000114036118041394/form424b5.htm>

..Prospectus supplement dated September 7, 2018

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

..Prospectus dated September 7, 2018:

<https://www.sec.gov/Archives/edgar/data/1000275/000121465918005973/l96181424b3.htm>

As used in this pricing supplement, “we,” “us” or “our” refers to Royal Bank of Canada.

### Investor Suitability

The Notes may be suitable for you if, among other considerations:

- .. You fully understand the risks inherent in an investment in the Notes, including the risk of loss of your entire initial investment.
- .. You can tolerate a loss of all or a substantial portion of your investment and are willing to make an investment that may have the full downside market risk of an investment in the Reference Stock.
- .. You are willing to accept the risks of investing in equities in general and in the Reference Stock in particular. You believe the final underlying price of the Reference Stock is not likely to be less than the Downside Threshold, and, if it is, you can tolerate receiving an amount of cash at maturity that is less than your principal amount or that may be zero.
- .. You understand and accept that you will not participate in any appreciation in the price of the Reference Stock and that your return on the Notes is limited to the coupons paid.
- .. You are willing to forgo dividends or other benefits of owning shares of the Reference Stock.
- .. You can tolerate fluctuations in the price of the Notes prior to maturity that may be similar to or exceed the downside price fluctuations of the Reference Stock.
- .. You are willing and able to invest in a security that may be called early at our election, and you are otherwise able to hold the Notes to maturity. You are willing to invest in Notes for which there may be little or no secondary market and you accept that the secondary market will depend in large part on the price, if any, at which RBC Capital Markets, LLC, which we refer to as "RBCCM," is willing to purchase the Notes.
- .. You would be willing to invest in the Notes based on the coupon rate set forth on the cover page of this document.
- .. You are willing to assume our credit risk for all payments under the Notes, and understand that if we default on our obligations, you may not receive any amounts due to you, including any repayment of principal.

The Notes may not be suitable for you if, among other considerations:

- .. You do not fully understand the risks inherent in an investment in the Notes, including the risk of loss of your entire initial investment.
- .. You require an investment designed to provide a full return of principal at maturity.
- .. You are unwilling to accept the risks of investing in equities in general or in the Reference Stock in particular.
- .. You are not willing to make an investment that may have the full downside market risk of an investment in the Reference Stock.
- .. You believe that the final underlying price of the Reference Stock is likely to be less than the Downside Threshold, which could result in a total loss of your initial investment.
- .. You cannot tolerate receiving an amount of cash at maturity that is less than your principal amount or that may even be zero.
- .. You seek an investment that participates in the appreciation in the price of the Reference Stock or that has unlimited return potential.
- .. You want to receive dividends or other distributions paid on the Reference Stock.
- .. You cannot tolerate fluctuations in the price of the Notes prior to maturity that may be similar to or exceed the downside price fluctuations of the Reference Stock.
- .. You are unwilling to invest in the Notes based on the coupon rate set forth on the cover page of this document.
- .. You seek an investment for which there will be an active secondary market.
- .. You are unable or unwilling to invest in a security that may be called prior to maturity, or you are otherwise unable or unwilling to hold the Notes to maturity.
- .. You are not willing to assume our credit risk for all payments under the Notes, including any repayment of principal.

The suitability considerations identified above are not exhaustive. Whether or not the Notes are a suitable investment for you will depend on your individual circumstances, and you should reach an investment decision only after you and

your investment, legal, tax, accounting, and other advisers have carefully considered the suitability of an investment in the Notes in light of your particular circumstances. You should also review carefully the “Key Risks” beginning on page 6 of this pricing supplement prospectus and “Risk Factors” in the accompanying product prospectus supplement for risks related to an investment in the Notes. For more information on the Reference Stock, see “Information About the Reference Stock” in this pricing supplement.

Final Terms of the Notes<sup>1</sup>

Issuer:	Royal Bank of Canada
Principal	
Amount per Note:	\$10 per Note (subject to a minimum purchase of 100 Notes for \$1,000)
Term:	Approximately 12 months, if not previously called
Reference Stock:	The common stock of International Paper Company.
Closing Price:	On any trading day, the last reported sale price of the Reference Stock on the principal national securities exchange on which it is listed for trading, as determined by the calculation agent.
Initial Underlying Price:	The closing price of the Reference Stock on the trade date, as set forth on the cover page of this pricing supplement.
Final Underlying Price:	The closing price of the Reference Stock on the final valuation date.
Underlying Return:	<u>Final Underlying Price – Initial Underlying Price</u> Initial Underlying Price The coupon rate per annum will be 9.60% per annum.
Coupon Payment:	The coupon payments will be made in equal quarterly installments of \$0.24 per \$10 in principal amount on the Coupon Payment Dates, regardless of the performance of the Reference Stock, unless the Notes are earlier called. Coupons will be paid in equal quarterly installments on the Coupon Payment Dates listed below, unless previously called.
Coupon Payment Dates:	The Coupon Payment Dates are: July 9, 2019, October 8, 2019, January 8, 2020 and April 9, 2020. Coupons will be paid to the holders of record at the close of business on the date one business day prior to the applicable Coupon Payment Date. However, the coupon payable at maturity or upon our call will be paid to the holders to whom the payment of the amount due upon the call or at maturity is due. We may elect to call the Notes on any Coupon Payment Date (other than the final Coupon Payment Date), regardless of the price of the Reference Stock. If we call the Notes, we will pay you on the applicable Coupon Payment Date a cash payment per Note equal to the principal amount plus accrued and unpaid interest, and no further payments will be made on the Notes. Before we elect to call the Notes on a Coupon Payment Date, we will

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<sup>1</sup> Terms used in this pricing supplement, but not defined herein, shall have the meanings ascribed to them in the product prospectus supplement.

deliver written notice to The Depository Trust Company (“DTC”) at least three business days prior to that date.

Ø If the Notes are not called prior to maturity, and the final underlying price of the Reference Stock is greater than or equal to the Downside Threshold, we will pay you at maturity an amount in cash equal to \$10 for each \$10 principal amount of the Notes, plus accrued and unpaid interest.

Ø If we do not call the Notes prior to maturity, and the final underlying price of the Reference Stock is less than the Downside Threshold, we will pay to you at maturity an amount of cash for each \$10 in principal amount equal to:  
 $\$10 \times (1 + \text{Underlying Return})$   
 We will also pay to you accrued and unpaid interest on the Notes. This amount will be significantly less than the principal amount and may be \$0.

Downside Threshold: 80% of the initial underlying price, as specified on the cover page of this pricing supplement (as may be adjusted by the calculation agent in the case of certain adjustment events as described under “General Terms of the Notes — Anti-dilution Adjustments” in the product prospectus supplement).





Investment Timeline

April 3, 2019 The initial underlying price was determined.

Quarterly (including at Maturity): We will pay the applicable coupon payments.

Quarterly (callable at our election): We may, at our election and upon at least 3 business days' written notice to DTC, call the Notes on any Coupon Payment Date (other than the final Coupon Payment Date), regardless of the price of the Reference Stock. If we elect to call the Notes, we will pay you a cash payment per Note equal to the principal amount plus accrued and unpaid interest, and no further payments will be made on the Notes.

If the Notes have not been previously called, the final underlying price is determined as of the final valuation date.

If the final underlying price of the Reference Stock is not less than the Downside Threshold, we will pay you the principal amount, together with the final coupon.

Maturity Date: However, if the final underlying price is less than the Downside Threshold, we will pay to you an amount in cash, for each \$10 in principal amount of the Notes, calculated as follows:  
 $\$10 \times (1 + \text{Underlying Return})$

In this case, we will pay an amount that is significantly less than the principal amount, and that may be zero. We will also pay to you the final coupon.

INVESTING IN THE NOTES INVOLVES SIGNIFICANT RISKS. YOU MAY LOSE SOME OR ALL OF YOUR PRINCIPAL AMOUNT AS YOU MAY RECEIVE AN AMOUNT AT MATURITY THAT IS LESS THAN YOUR PRINCIPAL AMOUNT OR HAVE NO VALUE AT ALL. ANY PAYMENT ON THE NOTES, INCLUDING ANY REPAYMENT OF PRINCIPAL, IS SUBJECT TO OUR CREDITWORTHINESS. IF WE WERE TO DEFAULT ON OUR PAYMENT OBLIGATIONS, YOU MAY NOT RECEIVE ANY AMOUNTS OWED TO YOU UNDER THE NOTES AND YOU COULD LOSE YOUR ENTIRE INVESTMENT.

## Key Risks

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the Reference Stock. These risks are explained in more detail in the “Risk Factors” section of the accompanying product prospectus supplement. We also urge you to consult your investment, legal, tax, accounting and other advisors before investing in the Notes.

### Risks Relating to the Notes Generally

**Your Investment in the Notes May Result in a Loss –** The Notes differ from ordinary debt securities in that we will not necessarily pay the full principal amount of the Notes at maturity. At maturity, if the Notes have not been previously called, we will only pay you the principal amount of your Notes if the final underlying price of the Reference Stock is greater than or equal to the Downside Threshold. If the final underlying price of the Reference Stock is less than the Downside Threshold, we will pay you an amount reflecting the downside performance of the Reference Stock, and you may lose up to 100% of the principal amount.

**The Coupon Rate Per Annum Payable on the Notes Will Reflect in Part the Volatility of the Reference Stock, and May Not Be Sufficient to Compensate You for the Risk of Loss at Maturity –** “Volatility” refers to the frequency and magnitude of changes in the price of the Reference Stock. The greater the volatility of the Reference Stock, the more likely it is that the price of that stock could close below the Downside Threshold on the final valuation date, which would result in the loss of some or all of your principal. This risk will generally be reflected in a higher coupon rate per annum payable on the Notes than the interest rate payable on our conventional debt securities with a comparable term and/or a lower Downside Threshold than on otherwise comparable securities. Therefore, a relatively higher coupon rate may indicate an increased risk of loss. Further, a relatively lower Downside Threshold may not necessarily indicate that the Notes have a greater likelihood of a return of principal at maturity. However, while the coupon rate and the Downside Threshold were set prior to the trade date, the Reference Stock’s volatility can change significantly over the term of the Notes, and may increase. The price of the Reference Stock could fall sharply as of the final valuation date, which could result in a significant loss of principal.

**The Contingent Repayment of Principal Applies Only at Maturity –** If we do not call the Notes prior to maturity, you should be willing to hold your Notes to maturity. If you are able to sell your Notes prior to maturity in the secondary market, if any, you may have to do so at a loss relative to your initial investment, even if the price of the Reference Stock is above the Downside Threshold.

**Reinvestment Risk –** If we call the Notes prior to the Maturity Date, no further payments will be owed to you under the Notes. Therefore, because the Notes could be called as early as the first Coupon Payment Date, the holding period over which you would receive the relevant coupon rate as specified on the cover page, could be as little as three months. There is no guarantee that you would be able to reinvest the proceeds from an investment in the Notes at a comparable return for a similar level of risk if we call the Notes prior to the Maturity Date.

It is more likely that we will elect to call the Notes prior to maturity when the sum of the expected remaining payments on the Notes is greater than the amounts that would be payable on other instruments issued by us of comparable maturity, terms and credit rating trading in the market. We are less likely to call the Notes prior to maturity when the sum of the expected remaining payments on the Notes is less than the amounts that would be payable on other comparable instruments issued by us. Therefore, the Notes are more likely to remain outstanding when your risk of losing all or a portion of the principal amount at maturity is relatively higher.

**An Investment in the Notes Is Subject to Our Credit Risk –** The Notes are our unsubordinated, unsecured debt obligations, and are not, either directly or indirectly, an obligation of any third party. Any payments to be made on the Notes, including coupon payments and any repayment of principal provided at maturity, depends on our ability to satisfy our obligations as they come due. As a result, our actual and perceived creditworthiness may affect the market value of the Notes and, if we were to default on our obligations, you may not receive any amounts owed to you under the terms of the Notes and you could lose your entire investment.

**The Notes Will be Subject to Risks, Including Non-Payment in Full, Under Canadian Bank Resolution Powers —** Under Canadian bank resolution powers, the Canada Deposit Insurance Corporation (“CDIC”) may, in circumstances where we have ceased, or are about to cease, to be viable, assume temporary control or ownership over us and may be granted broad powers by one or more orders of the Governor in Council (Canada), including the power to sell or dispose of all or a part of our assets, and the power to carry out or cause us to carry out a transaction or a series of

transactions the purpose of which is to restructure our business. See “Description of Debt Securities – Canadian Bank Resolution Powers” in the accompanying prospectus for a description of the Canadian bank resolution powers, including the bail-in regime. If the CDIC were to take action under the Canadian bank resolution powers with respect to us, holders of the Notes could be exposed to losses.

Holders of the Notes Should Not Expect to Participate in any Appreciation of the Reference Stock, and Your Potential Return on the Notes Is Limited to the Coupon Payments Paid on the Notes – Despite being exposed to the risk of a decline in the price of the Reference Stock, you should not expect to participate in any appreciation in the price of the Reference Stock. Any positive return on the Notes is limited to the coupon rate per annum. Accordingly, if the Notes are called prior to maturity, you will not participate in any of the Reference Stock’s appreciation and your return will be limited to the principal amount plus the coupons paid up to and including the applicable payment.

Similarly, if the Notes are not called prior to the final valuation date and the final underlying price is greater than the initial underlying price, your return on the Notes at maturity may be less than your return on a direct investment in the Reference Stock or on a similar security that allows you to participate in the appreciation of the price of the Reference Stock. In contrast, if the final underlying price is less than the Downside Threshold, you will be exposed to the decline of the Reference Stock and we will pay to you at maturity for each Note you own an amount that will be significantly less than the principal amount, in which case you may even lose your entire investment. As a result, any positive return on the Notes is limited to the coupon rate per annum.

**An Investment in the Notes Is Subject to Single Stock Risk –** The price of the Reference Stock can rise or fall sharply due to factors specific to the Reference Stock and its issuer, 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. You, as an investor in the Notes, should make your own investigation into the Reference Stock issuer and the Reference Stock for your Notes. For additional information about the Reference Stock and its issuer, please see "Information about the Reference Stock" in this pricing supplement and the Reference Stock issuer's SEC filings referred to in that section. We urge you to review financial and other information filed periodically by the Reference Stock issuer with the SEC.

**Owning the Notes Is Not the Same as Owning the Reference Stock –** The return on your Notes may not reflect the return you would realize if you actually owned the Reference Stock. For instance, you will not receive or be entitled to receive any dividend payments or other distributions over the term of the Notes. As an owner of the Notes, you will not have voting rights or any other rights that holders of the Reference Stock may have. Further, the Reference Stock may appreciate over the term of the Notes and you will not participate in any such appreciation, which could be significant, even though you may be exposed to the decline of the Reference Stock at maturity.

**There Is No Affiliation Between the Reference Stock Issuer and Us, UBS and Our Respective Affiliates, and We Are Not Responsible for Any Disclosure by That Issuer -** We, UBS and our respective affiliates are not affiliated with the Reference Stock issuer. However, we, UBS and our respective affiliates may currently, or from time to time in the future engage in business with the Reference Stock issuer. Nevertheless, neither we nor our affiliates assume any responsibilities for the accuracy or the completeness of any information about the Reference Stock and the Reference Stock issuer. You, as an investor in the Notes, should make your own investigation into the Reference Stock and the Reference Stock issuer for your Notes. The Reference Stock issuer is not involved in this offering and has no obligation of any sort with respect to your Notes. The Reference Stock issuer has 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.

**There Can Be No Assurance that the Investment View Implicit in the Notes Will Be Successful –** It is impossible to predict whether and the extent to which the price of the Reference Stock will rise or fall. The closing price of the Reference Stock will be influenced by complex and interrelated political, economic, financial and other factors that affect the Reference Stock. You should be willing to accept the downside risks of owning equities in general and the Reference Stock in particular, and the risk of losing some or all of your initial investment.

**The Initial Estimated Value of the Notes Is Less than the Price to the Public –** The initial estimated value for the Notes that is set forth on the cover page of this pricing supplement, which is less than the public offering price you pay for the Notes, does not represent a minimum price at which we, RBCCM or any of our other 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 price of the Reference Stock, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to public of the underwriting discount, and our estimated profit 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 the price to public, as any such sale price would not be expected to include the underwriting discount and our estimated profit and the costs relating to our hedging of the Notes. In addition, any price at which you may sell the Notes is likely to reflect customary bid-ask spreads for similar trades. In addition to bid-ask spreads, the value of the Notes determined for any secondary market price is expected to be based on a secondary market rate rather than the internal borrowing 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 borrowing 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.

**Our 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 each 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 trade 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 and the amount that may be paid at maturity.

**Lack of Liquidity** – The Notes will not be listed on any securities exchange. RBCCM intends to offer to purchase the Notes in the secondary market, but is not required to do so. Even if there is a secondary market, it may not provide enough liquidity to allow you to trade or sell the Notes easily. Because other dealers are not likely to make a secondary market for the Notes, the price at which you may be able to trade your Notes is likely to depend on the price, if any, at which RBCCM is willing to buy the Notes.

**Potential Conflicts** – We and our affiliates play a variety of roles in connection with the issuance of the Notes, including hedging our obligations under the Notes. In performing these duties, the economic interests of the calculation agent and other affiliates of ours are potentially adverse to your interests as an investor in the Notes.

**Potentially Inconsistent Research, Opinions or Recommendations by RBCCM, UBS or Their Respective Affiliates** – RBCCM, UBS or their respective affiliates may publish research, express opinions or provide recommendations as to the Reference Stock that are

inconsistent with investing in or holding the Notes, and which may be revised at any time. Any such research, opinions or recommendations could affect the price of the Reference Stock, and therefore the market value of the Notes.

..Uncertain Tax Treatment – Significant aspects of the tax treatment of an investment in the Notes are uncertain. You should consult your tax adviser about your tax situation.

Potential Royal Bank of Canada and UBS Impact on Price – Trading or other transactions by Royal Bank of Canada, ..UBS and our respective affiliates in the Reference Stock, or in futures, options, exchange-traded funds or other derivative products on the Reference Stock may adversely affect the market value of the Reference Stock, the closing price of the Reference Stock, and, therefore, the market value of the Notes.

The Terms of the Notes Were Influenced at Issuance and Their Market Value Prior to Maturity Will Be Influenced by Many Unpredictable Factors – Many economic and market factors influenced the terms of the Notes at issuance and will affect their value prior to maturity. These factors are similar in some ways to those that could affect the value of a combination of instruments that might be used to replicate the payments on the Notes, including a ..combination of a bond with one or more options or other derivative instruments. For the market value of the Notes, we expect that, generally, the price of the Reference Stock on any day will affect the value of the Notes more than any other single factor. However, you should not expect the value of the Notes in the secondary market to vary in proportion to changes in the price of the Reference Stock. The value of the Notes will be affected by a number of other factors that may either offset or magnify each other, including:

..the actual and expected volatility of the price of the Reference Stock;

..the time remaining to maturity of the Notes;

..the dividend rate on the Reference Stock;

.. interest and yield rates in the market generally;

..a variety of economic, financial, political, regulatory or judicial events;

..the occurrence of certain events relating to the Reference Stock that may or may not require an adjustment to the terms of the Notes; and

..our creditworthiness, including actual or anticipated downgrades in our credit ratings.

Some or all of these factors influenced the terms of the Notes at issuance and will influence the price you will receive if you choose to sell the Notes prior to maturity. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You may have to sell the Notes at a substantial discount from the principal amount if the price of the Reference Stock is at, below or not sufficiently above, the Downside Threshold.

The Anti-Dilution Protection for the Reference Stock Is Limited – The calculation agent will make adjustments to the initial underlying price and the Downside Threshold for certain events affecting the shares of the Reference Stock.

..However, the calculation agent will not be required to make an adjustment in response to all events that could affect the Reference Stock. If an event occurs that does not require the calculation agent to make an adjustment, the value of the Notes and the payments on the Notes may be materially and adversely affected.

Hypothetical Examples

Hypothetical terms only. Actual terms may vary. See the cover page for actual offering terms.

The following examples are hypothetical and provided for illustrative purposes only. They do not purport to be representative of every possible scenario concerning increases or decreases in the price of the Reference Stock relative to its initial underlying price. We cannot predict the final underlying price of the Reference Stock. You should not take these examples as an indication or assurance of the expected performance of the Reference Stock. The numbers appearing in the examples and tables below have been rounded for ease of analysis. The following examples and tables illustrate the Payment at Maturity or upon a call, based on the following hypothetical assumptions:

Principal Amount:	\$10
Term:	Approximately 12 months
Coupon Payment Dates	Quarterly
Hypothetical initial underlying price of the Reference Stock*:	\$10.00 per share
Hypothetical Downside Threshold*:	\$8.00 (which is 80.00% of the hypothetical initial underlying price)
Coupon rate per annum**:	9.60% (\$0.24 per quarter)

Hypothetical dividend yield on the Reference Stock\*\*\*: 1.50% over the term of the Notes (1.50% per annum)

\* Not the actual initial underlying price or Downside Threshold. The actual initial underlying price and Downside Threshold are set forth on the cover page.

\*\* Coupon payments will be paid in equal quarterly installments during the term of the Notes unless earlier called.

\*\*\* Hypothetical dividend yield that holders of the Reference Stock might receive over the term of the Notes. Holders of the Notes will not be entitled to any dividend payments made on the Reference Stock.

Scenario #1: The Notes are called on the first Coupon Payment Date.

Since the Notes are called on the first Coupon Payment Date, we will pay you a cash payment of \$10.24 per Note, reflecting the principal amount per Note plus the applicable coupon payment. No further amounts will be owed to you under the Notes.

Payment upon call:	\$10
<u>Coupon:</u>	<u>\$0.24 (\$0.24 x 1 = \$0.24)</u>
Total:	\$10.24
Total Return on the Notes:	2.40%

Scenario #2: The Notes are called on the third Coupon Payment Date.

Since the Notes are called on the third Coupon Payment Date, we will pay you a cash payment of \$10.24 per Note, reflecting the principal amount per Note plus the applicable coupon payment. Taking into account the coupon payments of \$0.48 paid in respect of the prior Coupon Payment Dates, we will have paid you a total of \$10.72 per Note, representing a 7.20% return on the Notes. No further amounts will be owed to you under the Notes.

Payment upon call:	\$10
<u>Coupons:</u>	<u>\$0.72 (\$0.24 x 3 = \$0.72)</u>
Total:	\$10.72
Total Return on the Notes:	7.20%

Scenario #3: The Notes are not previously called and the final underlying price of the Reference Stock is not below the hypothetical Downside Threshold of \$8.00.

Since the final underlying price of the Reference Stock is greater than the hypothetical Downside Threshold, we will pay you at maturity a cash payment equal to the principal amount of the Notes. This investment would outperform an investment in the Reference Stock if the price appreciation of the Reference Stock (plus dividends, if any) is less than 9.60% per annum.

If the closing price of the Reference Stock on the final valuation date is \$13.00 (an increase of 30%)

Payment at Maturity:	\$10
<u>Coupons:</u>	<u>\$0.96 (\$0.24 x 4 = \$0.96)</u>
Total:	\$10.96

Total Return on the Notes: 9.60%

In this example, the total return on the Notes is 9.60%, while the total return on the Reference Stock is a gain of 31.50% (including dividends).

If the closing price of the Reference Stock on the final valuation date is \$9.50 (a decline of 5%)

Payment at Maturity: \$10

Coupons: \$0.96 (\$0.24 x 4 = \$0.96)

Total: \$10.96

Total Return on the Notes: 9.60%

In this example, the total return on the Notes is 9.60%, while the total return on the Reference Stock is a loss of 3.50% (including dividends).



Scenario #4: The Notes are not called and the final underlying price of the Reference Stock is less than the hypothetical Downside Threshold.

Since the Notes have not been called and the final underlying price of the Reference Stock is below the hypothetical Downside Threshold, we will pay to you at maturity an amount that is less than the principal amount.

If the closing price of the Reference Stock on the maturity date is \$4.00 (a decline of 60%)

Cash Received at Maturity: \$4.00 (\$10 x 40%)

Coupons: \$0.96% (\$0.24 x 4 = \$0.96)

Total: \$4.96

Total Return on the Notes: -50.40%

In this example, the total return on the Notes is a loss of 50.40%, while the total return on the Reference Stock is a loss of 58.50% (including dividends)

Hypothetical Return Table at Maturity

The table below is based on the following assumptions\*

Principal Amount:	\$10.00
Term:	Approximately 12 months
Coupon Payment Dates:	Quarterly
Hypothetical initial underlying price of the Reference Stock*:	\$10.00 per share
Hypothetical Downside Threshold*:	\$8.00 (which is 80.00% of the hypothetical initial underlying price)
Coupon rate per annum**:	9.60% (\$0.24 per quarter)
Hypothetical dividend yield on the Reference Stock***:	1.50% over the term of the Notes (1.50% per annum)

\* Not the actual initial underlying price or Downside Threshold applicable to the Notes. The actual initial underlying price and Downside Threshold are set forth on the cover page.

\*\* Coupon payments will be paid in equal quarterly installments during the term of the Notes unless earlier called.

\*\*\* Hypothetical dividend yield holders of the Reference Stock might receive over the term of the Notes. Holders of the Notes will not be entitled to any dividend payments made on the Reference Stock.

<u>Reference Stock</u>		<u>Payments on the Notes</u>		
Final Underlying Price	Stock Price Return	Total Return on the Reference Stock at Maturity <sup>(1)</sup>	Payment at Maturity + Coupon Payments <sup>(2)</sup>	Total Return on the Notes at Maturity <sup>(3)</sup>
\$15.00	50.00%	51.50%	\$10.96	9.60%
\$14.50	45.00%	46.50%	\$10.96	9.60%
\$14.00	40.00%	41.50%	\$10.96	9.60%
\$13.50	35.00%	36.50%	\$10.96	9.60%
\$12.50	25.00%	26.50%	\$10.96	9.60%
\$12.00	20.00%	21.50%	\$10.96	9.60%
\$11.50	15.00%	16.50%	\$10.96	9.60%
\$11.00	10.00%	11.50%	\$10.96	9.60%
\$10.50	5.00%	6.50%	\$10.96	9.60%
\$10.00	0.00%	1.50%	\$10.96	9.60%
\$9.80	-2.00%	-0.50%	\$10.96	9.60%
\$9.50	-5.00%	-3.50%	\$10.96	9.60%
\$9.00	-10.00%	-8.50%	\$10.96	9.60%
\$8.00	-20.00%	-18.50%	\$10.96	9.60%
\$7.50	-25.00%	-23.50%	\$8.46	-15.40%
\$7.00	-30.00%	-28.50%	\$7.96	-20.40%
\$6.50	-35.00%	-33.50%	\$7.46	-25.40%
\$6.00	-40.00%	-38.50%	\$6.96	-30.40%
\$5.50	-45.00%	-43.50%	\$6.46	-35.40%
\$5.00	-50.00%	-48.50%	\$5.96	-40.40%
\$4.50	-55.00%	-53.50%	\$5.46	-45.40%
\$4.00	-60.00%	-58.50%	\$4.96	-50.40%
\$3.50	-65.00%	-63.50%	\$4.46	-55.40%
\$3.00	-70.00%	-68.50%	\$3.96	-60.40%

<sup>(1)</sup> The total return at maturity on the Reference Stock assumes a dividend yield on the Reference Stock of 1.50% over the term of the Notes.

<sup>(2)</sup> Payment consists of the amount payable at maturity, plus the coupon payments received during the term of the Notes.

<sup>(3)</sup> The total return at maturity on the Notes includes coupon payments received during the term of the Notes.



## What Are the Tax Consequences of the Notes?

### U.S. Federal Income Tax Consequences

Set forth below, together with the discussion of U.S. federal income tax in the accompanying product prospectus supplement, prospectus supplement and prospectus, is a summary of the material U.S. federal income tax consequences relating to an investment in the Notes. The following summary is not complete and is qualified in its entirety by the discussion under the section entitled “Supplemental Discussion of U.S. Federal Income Tax Consequences” in the accompanying product prospectus supplement, the section entitled “Certain Income Tax Consequences” in the accompanying prospectus supplement and the section entitled “Tax Consequences” in the accompanying prospectus, which you should carefully review prior to investing in the Notes.

In the opinion of our counsel, Morrison & Foerster LLP, it would generally be reasonable to treat the Notes for U.S. federal income tax purposes as an investment unit consisting of (i) a non-contingent debt instrument subject to the rules governing short-term debt instruments issued by us to you (the “Short-Term Debt Portion”) and (ii) a put option with respect to the Reference Stock written by you and purchased by us (the “Put Option”).

**Short-Term Debt Portion** — Amounts treated as interest on the Short-Term Debt Portion would be subject to general rules governing interest payments on short-term debt securities and would be required to be accrued by accrual-basis taxpayers (and cash-basis taxpayers who so elect) on either a straight-line basis or under the constant-yield method, based on daily compounding. Cash-basis taxpayers (who do not elect to accrue interest currently) would include interest in income upon receipt of such interest.

**Put Option** — Amounts treated as payment for the Put Option would generally be deferred and accounted for upon sale or maturity of the Notes. At maturity, the amounts treated as payment for the Put Option (i) would likely result in short-term capital gain if you were to receive a cash payment of the full principal amount of your Notes, (ii) would reduce the U.S. federal income tax basis of the shares of Reference Stock you receive if we were to exchange your Notes for shares of the Reference Stock, or (iii) would reduce the amount you are treated as paying us upon settlement of the Put Option if you were to receive a cash payment of less than the full principal amount of your Notes.

With respect to coupon payments you receive, we intend to treat such payments as consisting of interest on the debt component and a payment with respect to the put option as follows:

Reference Stock	Coupon Rate per Annum	Interest on Debt Component per Annum	Put Option Component per Annum
International Paper Company	9.60%	1.65%	7.95%

There is no judicial or administrative authority discussing how the Notes should be treated for U.S. federal income tax purposes. Therefore, other treatments would also be reasonable and the Internal Revenue Service (“IRS”) might assert that treatment other than that described above is more appropriate, in which case the timing and character of any income or loss on the Notes could be significantly and adversely affected. In addition, the IRS has released a notice that may affect the taxation of holders of “prepaid forward contracts” and similar instruments. According to the notice, the IRS and the U.S. Treasury Department are actively considering whether the holder of such instruments should be required to accrue ordinary income on a current basis. While it is not clear whether the Notes would be viewed as similar to such instruments, it is possible that any future guidance could materially and adversely affect the tax consequences of an investment in the Notes, possibly with retroactive effect.

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

Stock 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 Stock 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.

Individual holders that own “specified foreign financial assets” may be required to include certain information with respect to such assets with their U.S. federal income tax return. You are urged to consult your own tax advisor regarding such requirements with respect to the Notes. You should consult your tax advisor concerning the U.S. federal income tax and other tax consequences of your investment in the Notes in your particular circumstances, including the application of state, local or other tax laws and the possible effects of changes in federal or other tax laws.

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.

Please see the discussion under the section entitled “Supplemental Discussion of U.S. Federal Income Tax Consequences” in the accompanying product prospectus supplement for a further discussion of the U.S. federal income tax consequences of an investment in the Notes.

#### Canadian Federal Income Tax Consequences

For a discussion of the material Canadian federal income tax consequences relating to an investment in the Notes, please see the section entitled “Supplemental Discussion of Canadian Federal Income Tax Consequences” in the accompanying product prospectus supplement, together with the section entitled “Tax Consequences” in the accompanying prospectus, which you should carefully review prior to investing in the Notes.

#### Information About the Reference Stock

Set forth below is a brief description of the issuer of the Reference Stock. This information has been obtained from publicly available sources. Set forth below is a graph that shows the historical closing prices for the Reference Stock. We obtained the closing price information set forth below from the Bloomberg Professional® service (“Bloomberg”) without independent verification. You should not take the historical prices of the Reference Stock as an indication of future performance.

The Reference Stock is registered under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Companies with securities registered under the Exchange Act are required to file financial and other information specified by the SEC periodically. Information filed by the Reference Stock issuer with the SEC can be reviewed electronically through a website maintained by the SEC. The address of the SEC’s website is [www.sec.gov](http://www.sec.gov). Information filed with the SEC by the Reference Stock issuer under the Exchange Act can be located by reference to its SEC Central Index Key (“CIK”) number provided below. Information from outside sources is not incorporated by reference in, and should not be considered part of, this pricing supplement or any accompanying prospectus or prospectus supplement. We have not independently verified the accuracy or completeness of the information contained in outside sources.

#### International Paper Company

According to publicly available information, International Paper Company is a producer of renewable fiber-based packaging, pulp and paper products. The company has manufacturing operations in North America, Latin America, Europe, North Africa, India and Russia.

Information filed by the company with the SEC under the Exchange Act can be located by reference to its SEC CIK number: 0000051434. The company’s common stock is listed on the New York Stock Exchange under the ticker symbol “IP.”

#### Historical Information

The graph below illustrates the performance of the Reference Stock from April 3, 2009 to April 3, 2019, based on the initial underlying price of \$47.70, which was its closing price on April 3, 2019. The green line represents the Downside Threshold of \$38.16, which is 80% of the initial underlying price.

**HISTORIC PERFORMANCE IS NOT AN INDICATION OF FUTURE PERFORMANCE.**

Source: Bloomberg L.P. We have not independently verified the accuracy or completeness of the information obtained from Bloomberg Financial Markets.

#### Supplemental Plan of Distribution (Conflicts of Interest)

We have agreed to indemnify UBS Financial Services Inc. and RBCCM against liabilities under the Securities Act of 1933, as amended, or to contribute payments that UBS Financial Services Inc. and RBCCM may be required to make relating to these liabilities as described in the prospectus supplement and the prospectus. We have agreed that UBS Financial Services Inc. may sell all or a part of the Notes that it will purchase from us to investors or to its affiliates at the price indicated on the cover of this pricing supplement.

Subject to regulatory constraints and market conditions, RBCCM intends to offer to purchase the Notes in the secondary market, but it is not required to do so.

We or our affiliates may enter into swap agreements or related hedge transactions with one of our other affiliates or unaffiliated counterparties in connection with the sale of the Notes and RBCCM and/or an affiliate may earn additional income as a result of payments pursuant to the swap or related hedge transactions. See “Use of Proceeds and Hedging” in the accompanying product prospectus supplement.

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 4 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 be a higher amount, reflecting the addition of the underwriting discount and our estimated costs and profits from hedging the Notes. Any such 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. This period may be reduced at RBCCM’s discretion based on a variety of factors, including but not limited to, the amount of the Notes that we repurchase and our negotiated arrangements from time to time with UBS. 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.

#### Structuring the Notes

The Notes are our debt securities, the return on which is linked to the performance of the Reference Stock. 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 resulted in a higher initial estimated value of the Notes at the time their terms are set than if the secondary market rate was used. Unlike the estimated value included on the cover page of this document, any value of the Notes determined for purposes of a secondary market transaction may be based on a different borrowing rate, which may result in a lower value for the Notes than if our initial internal borrowing 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 Stock, 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 each of the Notes also reflects the underwriting commission and our estimated hedging costs. These factors resulted in the initial estimated value for each of the Notes on the trade date being less than their public offering price. See “Key Risks—The Initial Estimated Value of the Notes Is Less than the Price to the Public” above.

#### Terms Incorporated in Master Note

The terms appearing above under the caption “Final Terms of the Notes” and the provisions in the accompanying product prospectus supplement dated October 26, 2018 under the caption “General Terms of the Notes,” are



incorporated into the master note issued to DTC, the registered holder of the Notes.

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### 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.