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PRICING SUPPLEMENT
Filed Pursuant to Rule 424(b)(2)
Registration Statement No. 333-227001
Dated February 7, 2020

Royal Bank of Canada Trigger Autocallable Contingent Yield Notes

$20,368,000 Notes Linked to the Least Performing Underlying of the S&P 500® Index, the Russell 2000® Index and the NASDAQ-100® Index due on February 10, 2022

Investment Description

Trigger Autocallable Contingent Yield Notes (the "Notes") are unsecured and unsubordinated debt securities issued by Royal Bank of Canada linked to the performance of the least performing of the three indices listed above (each, an "Underlying Index," and together, the "Underlying Indices"). We will pay a quarterly Contingent Coupon payment if the closing level of each Underlying Index on the applicable Coupon Observation Date is equal to or greater than their respective Coupon Barriers. Otherwise, no coupon will be paid for that quarter. We will automatically call the Notes early if the closing level of each Underlying Index on any quarterly Call Observation Date (beginning after six months) is equal to or greater than its respective Initial Level. If the Notes are called, we will pay you the principal amount of your Notes plus the Contingent Coupon for the applicable quarter, and no further amounts will be owed to you under the Notes. If the Notes are not called prior to maturity and the Final Levels of all of the Underlying Indices are equal to or greater than their respective Downside Thresholds (which are the same levels as their respective Coupon Barriers), we will pay you a cash payment at maturity equal to the principal amount of your Notes plus the Contingent Coupon for the final quarter. However, if the Final Level of the Underlying Index with the lowest percentage change from its Initial Level (the "Least Performing Underlying Index") is less than its Downside Threshold, we will pay you less than the full principal amount, if anything, resulting in a loss on your initial investment that is proportionate to the negative performance of the Least Performing Underlying Index over the term of the Notes, and you may lose up to 100% of your initial investment. 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 will not receive a coupon for any Coupon Observation Date on which any Underlying Index closes below its Coupon Barrier. The Notes will not be automatically called if any Underlying Index closes below its Initial Level on a quarterly Call Observation Date. You may lose some or all of your principal amount if the Least Performing Underlying Index closes below its Downside Threshold, regardless of the performance of the other Underlying Indices. The contingent repayment of principal only applies if you hold the Notes until maturity. Generally, the higher the Contingent Coupon Rate on a security, the greater the risk of loss. 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. The Notes will not be listed on any securities exchange.

Features

? **Contingent Coupon** — We will pay a quarterly Contingent Coupon payment if the closing levels of all of the Underlying Indices on the applicable Coupon Observation Date are equal to or greater than their respective Coupon Barriers. Otherwise, no coupon will be paid for the quarter.

? **Automatically Callable** — We will automatically call the Notes and pay you the principal amount of your Notes plus the Contingent Coupon otherwise due for the applicable quarter if the closing levels of all of the Underlying Indices on any quarterly Call Observation Date (beginning after six months) are equal to or greater than their respective Initial Levels. If the Notes are not called, investors will have the potential for downside equity market risk at maturity.

? **Contingent Repayment of Principal at Maturity** — If by maturity the Notes have not been called and each Underlying Index does not close below its Downside Threshold on the Final Valuation Date, we will repay your principal amount per Note at maturity. However, if the closing level of the Least Performing Underlying Index is less than its Downside Threshold on the Final Valuation Date, we will pay less than the principal amount, if anything, resulting in a loss on your initial investment that is proportionate to the decline in the level of the Least Performing Underlying Index from the Trade Date to the Final Valuation Date. 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.

Key Dates

Trade Date	February 7, 2020
Settlement Date	February 12, 2020
Coupon Observation Dates[1]	Quarterly (see page 6)
Call Observation Dates[1]	Quarterly (callable after six months, see page 6)
Final Valuation Date[1]	February 7, 2022
Maturity Date[1]	February 10, 2022

1 Subject to postponement if a market disruption event occurs, as described under "General Terms of the Notes—Payment at Maturity" below.

NOTICE TO INVESTORS: THE NOTES ARE SIGNIFICANTLY RISKIER THAN CONVENTIONAL DEBT INSTRUMENTS. THE ISSUER IS NOT NECESSARILY OB THE NOTES CAN HAVE DOWNSIDE MARKET RISK SIMILAR TO THE LEAST PERFORMING UNDERLYING INDEX. YOU MAY BE EXPOSED TO THE MARKET DECLINE IN THE LEVEL OF ANY UNDERLYING INDEX MAY NEGATIVELY AFFECT YOUR RETURN AND WILL NOT BE OFFSET OR MITIGATED BY A LESSE UNDERLYING INDICES. THIS MARKET RISK IS IN ADDITION TO THE CREDIT RISK INHERENT IN PURCHASING ONE OF OUR DEBT OBLIGATIONS. YOU SH COMFORTABLE WITH THE SIGNIFICANT RISKS INVOLVED IN INVESTING IN THE NOTES.

YOU SHOULD CAREFULLY CONSIDER THE RISKS DESCRIBED UNDER "KEY RISKS" BEGINNING ON PAGE 7 OF THIS PRICING SUPPLEMENT AND UNDER BEFORE PURCHASING ANY NOTES. EVENTS RELATING TO ANY OF THOSE RISKS, OR OTHER RISKS AND UNCERTAINTIES, COULD ADVERSELY AFFECT OR ALL OF YOUR INITIAL INVESTMENT IN THE NOTES.

Note Offering

This pricing supplement relates to Trigger Autocallable Contingent Yield Notes we are offering linked to the least performing underlying of the S&P 500® Index, the Russell 2000® Index and the NASDAQ-100® Index. The Notes will be issued in minimum denominations of $10.00, and integral multiples of $10.00 in excess thereof, with a minimum investment of $1,000.

Underlying Indices (Least Performing of)	Tickers	Contingent Coupon Rate	Initial Levels	Downside Thresholds*	Coupon Barriers*	CUSIP	ISIN
S&P 500® Index (SPX)	SPX	6.25% per annum	3,327.71	2,329.40, which is 70% of its Initial Level	2,329.40, which is 70% of its Initial Level	78014K493	US78014K4931
Russell 2000® Index (RTY)	RTY		1,656.778	1,159.745, which is 70% of its Initial Level	1,159.745, which is 70% of its Initial Level		
NASDAQ-100® Index (NDX)	NDX		9,401.098	6,580.769, which is 70% of its Initial Level	6,580.769, which is 70% of its Initial Level		

*** Rounded to two decimal places in the case of the SPX, and three decimal places in the case of the RTY and the NDX.**

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, 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 and prospectus supplement. Any representation to the contrary is a criminal offense.

Offering of the Notes	Price to Public		Fees and Commissions(1)		Proceeds to Us	
	Total	Per Note	Total	Per Note	Total	Per Note
Notes linked to the Least Performing Underlying of the S&P 500® Index, the Russell 2000® Index and the NASDAQ-100® Index	$20,368,000	$10.00	$305,520	$0.15	$20,062,480	$9.85

(1) UBS Financial Services Inc., which we refer to as UBS, will receive a commission of $0.15 per $10.00 in principal amount of the Notes. See "Supplemental Plan of Distribution (Conflicts of Interest)" below.

The initial estimated value of the Notes as of the Trade Date is $9.7955 per $10 in principal amount, which is less than the price to the public. The actual value of the Notes at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount. We describe our determination of the initial estimated value 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**

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. **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 "Key Risks" below, as the Notes involve risks not associated with conventional debt securities.

If the terms of the prospectus and prospectus supplement are inconsistent with the terms discussed herein, the terms discussed in this pricing supplement will control.

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

? 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 same downside market risk as an investment in the securities composing the Least Performing Underlying Index.

? You believe the closing levels of all of the Underlying Indices will be equal to or greater than their respective Coupon Barriers on most or all of the Coupon Observation Dates (including the Final Valuation Date).

? You are willing to make an investment whose return is limited to the applicable Contingent Coupon payments, regardless of any potential appreciation of the Underlying Indices, which could be significant.

? You do not seek guaranteed current income from this investment and are willing to forgo the dividends paid on the equity securities composing the Underlying Indices.

? You can tolerate fluctuations in the price of the Notes prior to maturity that may be similar to or exceed the downside fluctuations of the Underlying Indices.

? 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.

The

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 cannot tolerate a loss on your investment and require an investment designed to provide a full return of principal at maturity.

? You are not willing to make an investment that may have the same downside market risk as an investment in the equity securities composing the Least Performing Underlying Index.

? You believe that the level of any Underlying Index will decline during the term of the Notes and is likely to close below its Coupon Barrier on most or all of the Coupon Observation Dates and below its Downside Threshold on the Final Valuation Date.

? You seek an investment that participates in the full appreciation in the levels of the Underlying Indices or that has unlimited return potential.

? You cannot tolerate fluctuations in the price of the Notes prior to maturity that may be similar to or exceed the downside fluctuations of the Least Performing Underlying Index.

? You are unwilling to invest in the Notes based on the Contingent Coupon Rate set forth on the cover page of this pricing supplement.

? You are unwilling to accept individual exposure to each Underlying Index and that the performance of the Least Performing Underlying Index will not be offset or mitigated by the

- You are willing to invest in the Notes based on the Contingent Coupon Rate set forth on the cover page of this pricing supplement.
- You are willing to accept individual exposure to each Underlying Index and that the performance of the Least Performing Underlying Index will not be offset or mitigated by the performance of the other Underlying Indices.
- You understand and accept the risks associated with the Underlying Indices.
- You are willing to invest in securities that may be called early and you are otherwise willing to hold such securities to maturity.
- 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.

performance of the other Underlying Indices.

- You seek guaranteed current income from this investment or prefer to receive the dividends paid on the securities composing the Underlying Indices.
- You do not understand or accept the risks associated with the Underlying Indices.
- You are unable or unwilling to hold securities that may be called early, or you are otherwise unable or unwilling to hold such securities to maturity, or you seek an investment for which there will be an active secondary market for the Notes.
- You are not willing to assume our credit risk for all payments under the Notes, including any repayment of principal.

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 section "Key Risks" below for risks related to an investment in the Notes. In addition, you should review carefully the section below, "Information About the Underlying Indices," for more information about these indices.

Final Terms of the Notes[1]

Issuer: Royal Bank of Canada

Principal Amount per Note: $10 per Note

Term: Approximately 2 years, if not previously called

Underlying Indices: The S&P 500® Index ("SPX"), the Russell 2000® Index ("RTY") and the NASDAQ-100® Index ("NDX")

Contingent Coupon: **If the closing levels of all of the Underlying Indices are equal to or greater than their respective Coupon Barriers on any Coupon Observation Date**, we will pay you the Contingent Coupon applicable to that Coupon Observation Date.

If the closing level of **any Underlying Index is less than its Coupon Barrier** on any Coupon Observation Date, the Contingent Coupon applicable to that Coupon Observation Date will not accrue or be payable, and we will not make any payment to you on the relevant Contingent Coupon Payment Date.

The Contingent Coupon will be a fixed amount based upon equal quarterly installments at the Contingent Coupon Rate.

Contingent Coupon payments on the Notes are not guaranteed. We will not pay you the Contingent Coupon for any Coupon Observation Date on which the closing level of any Underlying Index is less than its Coupon Barrier.

Contingent Coupon Rate: 6.25% per annum (or 1.5625% per quarter).

Each Contingent Coupon will be paid to the holders of record of the Notes at the close of business one business day prior to that Coupon Payment Date.

Automatic Call Feature: The Notes will be called automatically if the closing levels of all of the Underlying Indices on any Call Observation Date (beginning after six months and set forth on page 6) are equal to or greater than their respective Initial Levels.

If the Notes are called, we will pay you on the corresponding Coupon Payment Date (which will be the "Call Settlement Date") a cash payment per Note equal to the principal amount plus the applicable Contingent Coupon payment otherwise due on that day (the "Call Settlement Amount"). No further amounts will be owed to you under the Notes.

Payment at Maturity: If the Notes are not called and the Final Levels of all of the Underlying Indices are equal to or greater than their respective Downside Thresholds and the Coupon Barriers, we will pay you a cash payment per Note on the maturity date equal to $10 plus the Contingent Coupon otherwise due on the maturity date.

If the Notes are not called and the Final Level of the Least Performing Underlying Index is less than its Downside Threshold, we will pay you a cash payment on the maturity date of less than the principal amount, if anything, resulting in a loss on your initial investment that is proportionate to the negative Underlying Index Return of the Least Performing Underlying Index, equal to:

$10.00 + ($10.00 × Underlying Index Return of the Least Performing Underlying Index)

Least Performing Underlying Index: The Underlying Index with the lowest Underlying Index Return.

Underlying Index Returns: With respect to each Underlying Index,

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

Downside Thresholds: With respect to each Underlying Index, 70% of its Initial Level, as set forth on the cover page of this pricing supplement. The Downside Threshold is equal to the Coupon Barrier.

Coupon Barriers: With respect to each Underlying Index, 70% of its Initial Level, as set forth on the cover page of this pricing supplement. The Coupon Barrier is equal to the Downside Threshold.

Initial Levels: With respect to each Underlying Index, its closing level on the Trade Date, as set forth on the cover page of this pricing supplement.

Final Levels: With respect to each Underlying Index, its closing level on the Final Valuation Date, as determined by the calculation agent.

[1] Terms used in this pricing supplement, but not defined herein, shall have the meanings ascribed to them in the prospectus or the prospectus supplement.

Investment Timeline

Trade Date:	The Initial Level, Downside Threshold and Coupon Barrier of each Underlying Index was determined.
Quarterly (beginning after six months):	If the closing levels of all of the Underlying Indices are equal to or greater than their respective Coupon Barriers on any Coupon Observation Date, we will pay you a Contingent Coupon payment on the applicable Coupon Payment Date. The Notes will be called if the closing levels of all of the Underlying Indices on any Call Observation Date (beginning after six months) are equal to or greater than their respective Initial Levels. If the Notes are called, we will pay you a cash payment per Note equal to $10.00 plus the Contingent Coupon otherwise due on that date.
Maturity Date:	The Final Level of each Underlying Index is observed on the Final Valuation Date. If the Notes have not been called and the Final Levels of all of the Underlying Indices are equal to or greater than their respective

Downside Thresholds (and their respective Coupon Barriers), we will repay the principal amount equal to $10 per Note plus the Contingent Coupon otherwise due on the maturity date.

If the Notes have not been called and the Final Level of the Least Performing Underlying Index is less than its Downside Threshold, we will pay less than the principal amount, if anything, resulting in a loss on your initial investment proportionate to the decline of the Least Performing Underlying Index, for an amount equal to:

$10 + ($10 × Underlying Index Return of the Least Performing Underlying Index) per Note

INVESTING IN THE NOTES INVOLVES SIGNIFICANT RISKS. YOU MAY LOSE SOME OR ALL OF YOUR PRINCIPAL AMOUNT. YOU WILL BE EXPOSED TO THE MARKET RISK OF EACH UNDERLYING INDEX ON EACH COUPON OBSERVATION DATE AND ON THE FINAL VALUATION DATE, AND ANY DECLINE IN THE LEVEL OF ONE UNDERLYING INDEX MAY NEGATIVELY AFFECT YOUR RETURN AND WILL NOT BE OFFSET OR MITIGATED BY A LESSER DECLINE OR ANY POTENTIAL INCREASE IN THE LEVELS OF THE OTHER UNDERLYING INDICES. 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.

Coupon Observation Dates and Coupon Payment Dates*

Coupon Observation Dates	Coupon Payment Dates
May 7, 2020	May 11, 2020
August 7, 2020(1)	August 11, 2020(2)
November 9, 2020(1)	November 12, 2020(2)
February 8, 2021(1)	February 10, 2021(2)
May 7, 2021(1)	May 11, 2021(2)
August 9, 2021(1)	August 11, 2021(2)
November 8, 2021(1)	November 10, 2021(2)
February 7, 2022(3)	February 10, 2022(4)

(1) These Coupon Observation Dates are also Call Observation Dates.

(2) These Coupon Payment Dates are also Call Settlement Dates.

(3) This is also the Final Valuation Date.

(4) This is also the maturity date.

* Expected. Subject to postponement if a market disruption event occurs, as described below under "General Terms of the Notes—Market Disruption Events."

Key Risks

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the securities composing the Underlying Indices. In addition, your investment in the Notes entails other risks not associated with an investment in conventional debt securities. **You should consider carefully the following discussion of risks before you decide that an investment in the Notes is suitable for you. 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

? **Risk of loss at maturity**. The Notes differ from ordinary debt securities in that we will not necessarily repay the full principal amount of the Notes at maturity. If the Notes are not called, we will repay you the principal amount of your Notes in cash only if the Final Level of each Underlying Index is greater than or equal to its Downside Threshold, and we will only make that payment at maturity. If the Notes are not called and the Final Level of the Least Performing Underlying Index is less than its Downside Threshold, you will lose some or all of your initial investment in an amount proportionate to the decline in the level of the Least Performing Underlying Index.

? **The contingent repayment of principal applies only at maturity**. If the Notes are not automatically called, 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 levels of all of the Underlying Indices are above their respective Downside Thresholds.

? **You may not receive any Contingent Coupons**. Royal Bank of Canada will not necessarily make periodic Contingent Coupon payments on the Notes. If the closing level of at least one Underlying Index on a Coupon Observation Date is less than its Coupon Barrier, we will not pay you the Contingent Coupon applicable to that Coupon Observation Date. If the closing level of at least one Underlying Index is less than its Coupon Barrier on each of the Coupon Observation Dates, we will not pay you any Contingent Coupons during the term of, and you will not receive a positive return on, your Notes. Generally, this non-payment of the Contingent Coupon coincides with a period of greater risk of principal loss on your Notes. Accordingly, if we do not pay the Contingent Coupon on the maturity date, you will incur a loss of principal, because the Final Level of the Least Performing Underlying Index will be less than its Downside Threshold.

? **The Call Feature and the Contingent Coupon Feature limit your potential return**. The return potential of the Notes is limited to the pre-specified Contingent Coupon Rate, regardless of the appreciation of the Underlying Indices. In addition, the total return on the Notes will vary based on the number of Coupon Observation Dates on which the Contingent Coupon becomes payable prior to maturity or an automatic call. Further, if the Notes are called due to the automatic call feature, you will not receive any Contingent Coupons or any other payment in respect of any Coupon Observation Dates after the applicable Call Settlement Date. Since the Notes could be called as early as the first Call Observation Date, the total return on the Notes could be limited to six months. If the Notes are not called, you may be subject to the full downside performance of the Least Performing Underlying Index, even though your potential return is limited to the Contingent Coupon Rate. Generally, the longer the Notes are outstanding, the less likely it is that they will be automatically called due to the decline in the levels of the Underlying Indices and the shorter time remaining for the levels of the Underlying Indices to recover. As a result, the return on an investment in the Notes could be less than the return on a direct investment in the equity securities composing the Underlying Indices or on a similar security that allows you to participate in the appreciation of the levels of the Underlying Indices.

? **The Contingent Coupon Rate will reflect in part the volatility and correlation of the Underlying Indices 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 levels of the Underlying Indices. The greater the volatility of the Underlying Indices, the more likely it is that the level of any Underlying Index could close below its Downside Threshold on the Final Valuation Date. This risk will generally be reflected in a higher Contingent Coupon Rate for the Notes than the interest rate payable on our conventional debt securities with a comparable term. In addition, lower correlation between the Underlying Indices can also indicate a greater likelihood of one Underlying Index closing below its Coupon Barrier or Downside Threshold on a Coupon Observation Date or Final Valuation Date. This greater risk is also reflected in a higher Contingent Coupon Rate than on a security linked to Underlying Indices with a greater degree of correlation. However, while the Contingent Coupon is a fixed amount, the Underlying Indices' volatility and correlation can change significantly over the term of the Notes. The levels of one or more of the Underlying Indices could fall sharply as of the Final Valuation Date, which could result in missed Contingent Coupon payments and a significant loss of your principal amount.

? **The Notes may be called early and are subject to reinvestment risk**. The Notes will be called automatically if the closing levels of all of the Underlying Indices are equal to or greater than their respective Initial Levels on any Call Observation Date. In the event that the Notes are called prior to maturity, there is no guarantee that you will be able to reinvest the proceeds from an investment in the Notes at a comparable rate of return for a similar level of risk. To the extent you are able to reinvest your proceeds in an investment comparable to the Notes, you will incur transaction costs and the original issue price for such an investment is likely to include certain built in costs such as dealer discounts and hedging costs.

? **The Notes are subject to our credit risk**. The Notes are subject to our credit risk, and our credit ratings and credit spreads may adversely affect the market value of the Notes. Investors are dependent on our ability to pay all amounts due on the Notes, and therefore investors are subject to our credit risk and to changes in the market's view of our creditworthiness. Any decline in our credit ratings or increase in the credit spreads charged by the market for taking our credit risk is likely to adversely affect the value of the Notes. 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.

? **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.

? **The initial estimated value of the Notes is less than the price to the public**. The initial estimated value of the Notes that is set forth on the cover page of this pricing supplement is less than the public offering price you pay for the Notes, and 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 levels of the Underlying Indices, 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 market 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 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 amounts that may be paid on the Notes.

? **You will not participate in any appreciation of the Underlying Indices, and any potential return on the Notes is limited.** The return on the Notes is limited to the pre-specified Contingent Coupon Rate, regardless of the appreciation of the Underlying Indices. As a result, the return on an investment in the Notes could be less than the return on a direct investment in the Underlying Indices. In addition, the total return on the Notes will vary based on the number of Coupon Observation Dates on which the Contingent Coupon becomes payable prior to maturity or an automatic call. Further, if the Notes are called due to the automatic call feature, you will not receive any Contingent Coupons or any other payment in respect of any Coupon Observation Dates after the applicable Call Settlement Date. Since the Notes could be called as early as the second Coupon Observation Date, the total return on the Notes could be limited to six months. On the other hand, if the Notes have not been previously called and if the level of an Underlying Index is less than its Initial Level, as the maturity date approaches and the remaining number of Coupon

Observation Dates decreases, the Notes are less likely to be automatically called, as there will be a shorter period of time remaining for the level of that Underlying Index to increase to its Initial Level. If the Notes are not called, you will be subject to the Underlying Indices' risk of decline.

? **If you sell the Notes prior to maturity, you may receive less than the principal amount.** If the Notes are not automatically called, you should be willing to hold the Notes until maturity. If you are able to sell the Notes in the secondary market prior to maturity, you may have to sell them for a loss relative to the principal amount, even if the levels of the Underlying Indices are above their respective Downside Thresholds. In addition, you will not receive the benefit of any contingent repayment of principal associated with the Downside Thresholds if you sell the Notes before the maturity date. The potential returns described in this document assume that the Notes, which are not designed to be short-term trading instruments, are held to maturity.

? **Your return on the Notes may be lower than the return on a conventional debt security of comparable 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 investment may not reflect the full opportunity cost to you when you take into account factors that affect the time value of money, such as inflation.

? **Your return on the Notes will not reflect dividends on the equity securities composing the Underlying Indices.** The return on the Notes will not reflect the return you would realize if you actually owned the equity securities composing the Underlying Indices and received the dividends paid on those equity securities. The Final Levels of the Underlying Indices and the determination of the amount to be paid at maturity or upon an automatic call will not take into consideration the value of those dividends.

? **If the levels of the Underlying Indices change, the market value of the Notes may not change in the same manner.** Owning the Notes is not the same as owning the securities composing the Underlying Indices. Accordingly, changes in the levels of the Underlying Indices may not result in a comparable change of the market value of the Notes. If the levels of the Underlying Indices on any trading day increase above their respective Initial Levels or Coupon Barriers, the value of the Notes may not increase in a comparable manner, if at all. It is possible for the levels of the Underlying Indices to increase while the value of the Notes declines.

? **The determination of the payments on the Notes, and whether they are subject to an automatic call, does not take into account all developments in the levels of the Underlying Indices.** Changes in the levels of the Underlying Indices during the periods between each Coupon Observation Date may not be reflected in the determination as to whether the Contingent Coupon is payable to you on any Coupon Payment Date or whether the Notes are subject to an automatic call, or the calculation of the amount payable, if any, at maturity. The calculation agent will determine whether (i) the Contingent Coupon is payable to you on any quarterly Coupon Payment Date or (ii) the Notes are automatically called on any quarterly Call Observation Date by observing only the closing levels of the Underlying Indices on each Coupon Observation Date. The calculation agent will calculate the payment at maturity by comparing only the closing level of the Least Performing Underlying Index on the Final Valuation Date relative to its Initial Level. No other levels will be taken into account. As a result, you may lose some or all of your principal amount even if the level of the Least Performing Underlying Index has risen at certain times during the term of the Notes before falling to a level below its Downside Threshold on the Final Valuation Date.

? **The Notes are not designed to be short-term trading instruments.** The price at which you will be able to sell the Notes to us or our affiliates prior to maturity, if at all, may be at a substantial discount from the principal amount of the Notes, even in cases where the closing levels of the Underlying Indices have appreciated since the Trade Date. In addition, you will not receive the benefit of any contingent repayment of principal associated with the Downside Thresholds if you sell the Notes before the maturity date. The potential returns described in this document assume that the Notes, which are not designed to be short-term trading instruments, are held to maturity.

? **You must rely on your own evaluation of the merits of an investment linked to the Underlying Indices.** In the ordinary course of their business, our affiliates, or UBS or its affiliates, may have expressed views on expected movements in each of the Underlying Indices or the securities included in the Underlying Indices, and may do so in the future. These views or reports may be communicated to our respective clients and clients of our respective affiliates. However, these views are subject to change from time to time. Moreover, other professionals who transact business in markets relating to any Underlying Index, may at any time have significantly different views from those of ours, and those of UBS and its affiliates. For these reasons, you are encouraged to derive information concerning the Underlying Indices from multiple sources, and you should not rely solely on views expressed by us, UBS, or our respective affiliates.

? **Your return on the Notes is not linked to a basket consisting of the Underlying Indices. Rather, it will be contingent upon the performance of each individual Underlying Index.** Unlike an instrument with a return linked to a basket of indices or other underlying assets, in which risk is mitigated and diversified among all of the components of the basket, you will be exposed equally to the risks related to each of the Underlying Indices. Poor performance by any of the Underlying Indices over the term of the Notes may negatively affect your return and will not

be offset or mitigated by a positive performance by the other Underlying Indices. For the Notes to be automatically called or to receive any Contingent Coupon payment or contingent repayment of principal at maturity from us, all of the Underlying Indices must close above their Initial Levels, Coupon Barriers and Downside Thresholds, respectively, on the applicable Coupon Observation Date. In addition, if not called prior to maturity, you may incur a loss proportionate to the negative return of the Least Performing Underlying Index. Accordingly, your investment is subject to the market risk of each Underlying Index, which results in a higher risk of your not receiving Contingent Coupon payments and incurring a loss at maturity.

? **Because the Notes are linked to the individual performance of more than one Underlying Index, it is more likely that one of the Underlying Indices will decrease in value below its Coupon Barrier and its Downside Threshold, increasing the probability that you will not receive the Contingent Coupons and that you will lose some or all of your initial investment.** The risk that you will not receive the Contingent Coupons and that you will lose some or all of your initial investment in the Notes is greater if you invest in the Notes as opposed to securities that are linked to the performance of a single Underlying Index if their terms are otherwise substantially similar. With a greater total number of Underlying Indices, it is more likely that an Underlying Index will be below its Coupon Barrier or Downside Threshold on a Coupon Observation Date or the Final Valuation Date, and therefore it is more likely that you will not receive the Contingent Coupons and that at maturity you will receive an amount in cash which is worth less than your principal amount. In addition, the performance of each of the Underlying Indices may be positively or negatively correlated, or may not be correlated at all. If the Underlying Indices are not correlated to each other or are negatively correlated, there is a greater potential for one of those Underlying Indices to close below its Coupon Barrier or Downside Threshold or on the Final Valuation Date, respectively, and therefore the risk of missing a Contingent Coupon payment and that you will lose a portion of your principal at maturity.

It is impossible to predict what the correlations between the Underlying Indices will be over the term of the Notes. The Underlying Indices represent different equity markets and these different equity markets may not perform similarly over the term of the Notes. Although the correlation of the Underlying Indices' performance may change over the term of the Notes, the Contingent Coupon Rate was determined, in part, based on the Underlying Indices' performance calculated using our internal models at the time when the terms of the Notes were determined. As stated earlier, a higher Contingent Coupon Rate is generally associated with lower correlation of the Underlying Indices, which reflects a greater potential for missed Contingent Coupons and for a loss on your investment at maturity. See "Correlation of the Underlying Indices" below.

Risks Relating to Liquidity and Secondary Market Issues

? **Secondary trading in the Notes may be limited.** 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.

? **The terms of the Notes at issuance were influenced, 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 influence their value prior to maturity or an automatic call. 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 levels of the Underlying Indices 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 levels of the Underlying Indices. 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 level of the Underlying Indices;

? whether the levels of the Underlying Indices are below their respective Coupon Barriers or the Downside Thresholds;

? the actual and expected volatility of the Underlying Indices;

? the expected correlation of the Underlying Indices;

? the time remaining to maturity of the Notes;

? the dividend rates on the securities composing the Underlying Indices;

? interest and yield rates in the market generally, as well as in the markets of the equity securities composing the Underlying Indices;

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

? the occurrence of certain events with respect to the Underlying Indices 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 also 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, for example, the level of one or more of the Underlying Indices is at, or not sufficiently above, its Downside Threshold.

Risks Relating to the Underlying Indices

? **Changes that affect an Underlying Index will affect the market value of the Notes and the payments on the Notes.** The policies of the applicable index sponsor concerning the calculation of each Underlying Index, additions, deletions or substitutions of the components of that Underlying Index and the manner in which changes affecting those components, such as stock dividends, reorganizations or mergers, may be reflected in the Underlying Index and, therefore, could affect the amounts payable on the Notes, and the market value of the Notes prior to maturity. The amounts payable on the Notes and their market value could also be affected if the index sponsor changes these policies, for example, by changing the manner in which it calculates the applicable Underlying Index, or if the index sponsor discontinues or suspends calculation or publication of that Underlying Index, in which case it may become difficult to determine the market value of the Notes.

? **We have no affiliation with any of the index sponsors and will not be responsible for any actions taken by an index sponsor.** No index sponsor is an affiliate of ours or will be involved in the offering of the Notes in any way. Consequently, we have no control of the actions of any index sponsor, including any actions of the type that might impact the value of the Notes. No index sponsor has any obligation of any sort with respect to the Notes. Thus, no index sponsor has any obligation to take your interests into consideration for any reason, including in taking any actions that might affect the value of the Notes. None of our proceeds from the issuance of the Notes will be delivered to any index sponsor.

? **The historical performance of the Underlying Indices should not be taken as an indication of their future performance.** The levels of the Underlying Indices will determine the amount to be paid on the Notes. The historical performance of each Underlying Index does not give an indication of its future performance. As a result, it is impossible to predict whether the level of the Underlying Indices will rise or fall during the term of the Notes. The level of each Underlying Index will be influenced by complex and interrelated political, economic, financial and other factors. The level of each Underlying Index may decrease such that you may not receive any return on your investment or any Contingent Coupon payments. There can be no assurance that the level of each Underlying Index will not decrease so that at maturity you will not lose some or all of your investment.

? **An investment in Notes linked to the RTY is subject to risks associated in investing in stocks with a small market capitalization.** The RTY consists of stocks issued by companies with relatively small market capitalizations. These companies often have greater stock price volatility, lower trading volume and less liquidity than large-capitalization companies. As a result, the level of this Underlying Index may be more volatile than that of a market measure that does not track solely small-capitalization stocks. Stock prices of small-capitalization companies are also often more vulnerable than those of large-capitalization companies to adverse business and economic developments, and the stocks of small-capitalization companies may be thinly traded, and be less attractive to many investors if they do not pay dividends. In addition, small capitalization companies are often less well-established and less stable financially than large-capitalization companies and may depend on a small number of key personnel, making them more vulnerable to loss of those individuals. Small capitalization companies tend to have lower revenues, less diverse product lines, smaller shares of their target markets, fewer financial resources and fewer competitive strengths than large-capitalization companies. These companies may also be more susceptible to adverse developments related to their products or services.

? **The Notes are subject to non-U.S. securities market risk**. The Notes are subject to risks associated with non-U.S. companies and non-U.S. securities markets because some of the underlying constituents of the NDX are non-U.S. companies that may be traded on various non-U.S. exchanges. Non-U.S. securities may be more volatile than U.S. securities, and market developments may affect these companies differently from U.S. companies. Direct or indirect government intervention to stabilize these non-U.S. markets, as well as cross shareholdings in non-U.S. companies, may affect trading prices and volumes in those markets. Securities prices of non-U.S. companies are subject to political, economic, financial and social factors that may be unique to the particular country. These factors, which could negatively affect the non-U.S. securities, include the possibility of recent or future changes in the non-U.S.

government's economic and fiscal policies, the possible imposition of, or changes in, currency exchange laws or other non-U.S. laws or restrictions applicable to non-U.S. companies or investments in non-U.S. equity securities and the possibility of fluctuations in the rate of exchange between currencies. Moreover, certain aspects of a particular non-U.S. economy may differ favorably or unfavorably from the U.S. economy in important respects, such as growth of gross national product, rate of inflation, capital reinvestment, resources and self-sufficiency.

Risks Relating to Hedging Activities and Conflicts of Interest

? **We, UBS or our respective affiliates may have adverse economic interests to the holders of the Notes.** RBCCM, UBS and our respective affiliates trade the securities represented by the Underlying Indices, and other financial instruments related to the Underlying Indices, on a regular basis, for their accounts and for other accounts under our or their management. UBS, RBCCM and these affiliates may also issue or underwrite or assist unaffiliated entities in the issuance or underwriting of other securities or financial instruments that relate to the Underlying Indices. To the extent that we, UBS or any of our respective affiliates serves as issuer, agent or underwriter for such securities or financial instruments, our or their interests with respect to such products may be adverse to those of the holders of the Notes. Any of these trading activities could potentially affect the performance of the Underlying Indices and, accordingly, could affect the value of the Notes, and the amounts, if any, payable on the Notes.

We, UBS or our respective affiliates may currently or from time to time engage in business with the issuers of the securities represented by the Underlying Indices, including extending loans to, or making equity investments in, or providing advisory services to them, including merger and acquisition advisory services. In the course of this business, we, UBS or our respective affiliates may acquire non-public information about these companies, and we will not disclose any such information to you. None of us, UBS or our respective affiliates makes any representation or warranty to any purchaser of the Notes with respect to any matters whatsoever relating to our business with the issuer of any security included in the Underlying Indices or future price movements of any such security.

Additionally, we, UBS or our respective affiliates may serve as issuer, agent or underwriter for additional issuances of securities with returns linked or related to changes in the level of one or more of the Underlying Indices. 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 each Coupon Observation Date, 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.

? **The calculation agent will have significant discretion with respect to the Notes, which may be exercised in a manner that is adverse to your interests.** Our wholly-owned subsidiary, RBCCM, will act as the calculation agent. The calculation agent will determine, among other things, the closing levels of the Underlying Indices on each Coupon Observation Date, if any; whether the Notes are subject to an automatic call; the Final Level for each Underlying Index; the Underlying Index Return for each Underlying Index; and the amounts, if any, that we will pay to you on the Notes. The calculation agent will also be responsible for determining whether a market disruption event has occurred. The calculation agent may exercise its discretion in a manner which reduces your return on the Notes. Since these determinations by the calculation agent may affect the payments on the Notes, the calculation agent may have a conflict of interest if it needs to make a determination of this kind.

? **Market disruptions may adversely affect your return.** The calculation agent may, in its sole discretion, determine that the markets have been affected in a manner that prevents it from properly determining the closing level of one or more of the Underlying Indices on any Coupon Observation Date or calculating the Underlying Index Return for each Underlying Index and the amount, if any, that we are required to pay you. These events may include disruptions or suspensions of trading in the markets as a whole. If the calculation agent, in its sole discretion, determines that any of these events prevents us or any of our affiliates from properly hedging our obligations under the Notes, it is possible that one or more of the Coupon Observation Dates and the maturity date will be postponed, and your return will be adversely affected. See "General Terms of the Notes—Market Disruption Events."

? **Non-U.S. investors may be subject to certain additional risks.** This document contains a general description of certain U.S. tax considerations relating to the Notes. In the event you are a non-U.S. investor, you should consult your tax advisors as to the consequences, under the tax laws of the country where you are a resident for tax purposes, of acquiring, holding and disposing of the Notes and receiving the payments that might be due under the Notes.

For a discussion of the Canadian federal income tax consequences of investing in the Notes, please see the section entitled "Tax Consequences—Canadian Taxation" in the accompanying prospectus. If you are not a Non-resident Holder (as defined in the section titled "Tax Consequences—Canadian Taxation" in the accompanying prospectus) or if you acquire the Notes in the secondary market, you should consult your tax advisors as to the consequences of acquiring, holding and disposing of the Notes and receiving the payments that may be due under the Notes.

? **Significant aspects of the income tax treatment of an investment in the Notes may be uncertain.** The tax treatment of an investment in the Notes is uncertain. We do not plan to request a ruling from the Internal Revenue Service (the "IRS") or the Canada Revenue Agency regarding the tax treatment of an investment in the Notes, and the IRS, the Canada Revenue Agency or a court may not agree with the tax treatment described in this document.

The IRS has issued a notice indicating that it and the Treasury Department are actively considering whether, among other issues, a holder should be required to accrue ordinary income on a current basis irrespective of any Contingent Coupons. The outcome of this process is uncertain and could apply on a retroactive basis.

Please read carefully the section entitled "U.S. Federal Income Tax Consequences" in this document, the section entitled "Tax Consequences" in the accompanying prospectus and the section entitled "Certain Income Tax Consequences" in the accompanying prospectus supplement. You should consult your tax advisor about your own tax situation.

Use of Proceeds and Hedging

The net proceeds we receive from the sale of the Notes will be used for general corporate purposes and, in part, by us or by one or more of our affiliates in connection with hedging our obligations under the Notes. The original issue price of the Notes includes the underwriting discount and our estimated cost of hedging our obligations under the Notes.

In anticipation of the sale of the Notes, we expect to enter into hedging transactions with one or more of our affiliates, involving the Underlying Indices or the securities composing the Underlying Indices, and/or related listed and/or over-the-counter derivative instruments prior to or on the Trade Date. From time to time, including around the time of each Coupon Observation Date and the maturity date, we and our respective affiliates may enter into additional hedging transactions or unwind those that we or they have entered into. In this regard, we and our respective affiliates may:

? acquire or dispose of investments relating to the Underlying Indices;

? acquire or dispose of long or short positions in listed or over-the-counter derivative instruments related to the Underlying Indices; or

? any combination of the above two.

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

We and our affiliates may close out our or their hedges at any time during the term of the Notes, including on or before any Coupon Observation Date. That step may, for example, involve sales or purchases of over-the-counter derivative instruments linked to the Underlying Indices.

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 level of any Underlying Index relative to its Initial Level. We cannot predict the Final Level of any Underlying Index. You should not take these examples as an indication or assurance of the expected performance of any Underlying Index. 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 an automatic call per Note on a hypothetical offering of the Notes, based on the following hypothetical assumptions (the actual terms for the Notes are set forth on the cover page of this pricing supplement):

Principal Amount:	$10.00
Term:	Approximately 2 years
Contingent Coupon Rate:	6.25% per annum (or 1.5625% per quarter)
Contingent Coupon*:	$0.15625 per quarter
Coupon Observation Dates:	Quarterly
Call Observation Dates:	Quarterly (callable after six months)
Hypothetical Initial Levels**:	
Underlying Index A:	1,000.00
Underlying Index B:	1,000.00
Underlying Index C:	1,000.00
Hypothetical Coupon Barriers**:	
Underlying Index A:	700.00 (which is 70% of its Initial Level)
Underlying Index B:	700.00 (which is 70% of its Initial Level)
Underlying Index C:	700.00 (which is 70% of its Initial Level)
Hypothetical Downside Thresholds**:	
Underlying Index A:	700.00 (which is 70% of its Initial Level)
Underlying Index B:	700.00 (which is 70% of its Initial Level)

Underlying Index C:	700.00 (which is 70% of its Initial Level)

** Contingent Coupon payments, if payable, will be paid quarterly unless the Notes are earlier called.*

*** Not the actual Initial Levels, Coupon Barriers or Downside Thresholds applicable to the Notes. The actual Initial Level, Coupon Barrier and Downside Threshold of each Underlying Index are set forth on the cover page of this pricing supplement.*

Scenario #1: Notes Are Called on the Second Coupon Observation Date.

Date	Closing Level	Payment (per Note)
First Coupon Observation Date	Underlying Index A: 1,100.00 (at or above Initial Level)	$0.15625 (Contingent Coupon – not callable)
	Underlying Index B: 1,100.00 (at or above Initial Level)	
	Underlying Index C: 1,100.00 (at or above Initial Level)	
Second Coupon Observation Date	Underlying Index A: 1,100.00 (at or above Initial Level)	$10.15625
	Underlying Index B: 1,100.00 (at or above Initial Level)	
	Underlying Index C: 1,100.00 (at or above Initial Level)	
	Total Payment:	$10.3125 (3.125% return)

Since the Notes are called on the second Coupon Observation Date, we will pay you on the Call Settlement Date a total of $10.15625 per Note, reflecting your principal amount plus the applicable Contingent Coupon. When added to the Contingent Coupon payment of $0.15625 received in respect of the prior Coupon Observation Date, we will have paid you a total of $10.3125 per Note, for a 3.125% total return on the Notes. No further amount will be owed to you under the Notes.

Scenario #2: Notes Are NOT Called and the Final Levels of All of the Underlying Indices Are at or Above Their Respective Downside Thresholds.

Date	Closing Level	Payment (per Note)
First Coupon Observation Date	Underlying Index A: 850.00 (at or above Coupon Barrier; below Initial Level)	$0.15625 (Contingent Coupon – not callable)
	Underlying Index B: 850.00 (at or above Coupon Barrier; below Initial Level)	
	Underlying Index C: 850.00 (at or above Coupon Barrier; below Initial Level)	
Second Coupon Observation Date	Underlying Index A: 600.00 (below Coupon Barrier)	$0.00 (Notes are not called)
	Underlying Index B: 900.00 (at or above Coupon Barrier; below Initial Level)	
	Underlying Index C: 900.00 (at or above Coupon Barrier; below Initial Level)	
Third Coupon Observation Date	Underlying Index A: 900.00 (at or above Coupon Barrier; below Initial Level)	$0.00 (Notes are not called)
	Underlying Index B: 500.00 (below Coupon Barrier)	
	Underlying Index C: 900.00 (at or above Coupon Barrier; below Initial Level)	
Fourth Coupon Observation Date	Underlying Index A: 900.00 (at or above Coupon Barrier; below Initial Level)	$0.15625 (Contingent Coupon – Notes are not called)
	Underlying Index B: 1,100.00 (above Initial Level)	
	Underlying Index C: 900.00 (at or above Coupon Barrier; below Initial Level)	
Fifth through Seventh Coupon Observation Dates	Underlying Index A: Various (above Coupon Barrier)	$0.00 (Notes are not called)
	Underlying Index B: Various (below Coupon Barrier)	
	Underlying Index C: Various (above Initial Level)	
Final Valuation Date	Underlying Index A: 800.00 (above Downside Threshold; below Initial Level)	$10.15625 (Payment at Maturity)
	Underlying Index B: 1,100.00 (above Downside Threshold and Initial Level)	
	Underlying Index C: 1,200 (above Downside Threshold and Initial Level)	
	Total Payment:	$10.46875 (4.6875% return)

At maturity, we will pay you a total of $10.15625 per Note, reflecting your principal amount plus the applicable Contingent Coupon. When added to the Contingent Coupon payments of $0.3125 received in respect of prior Coupon Observation Dates on which Contingent Coupons were paid, we will have paid you a total of $10.46875 per Note, for a 4.6875% total return on the Notes.

Scenario #3: Notes Are NOT Called and the Final Level of One Underlying Index Is Below Its Downside Threshold

Date	Closing Level	Payment (per Note)
First Coupon Observation Date	Underlying Index A: 900.00 (at or above Coupon Barrier; below Initial Level)	$0.15625 (Contingent Coupon – not callable)
	Underlying Index B: 1,200.00 (above Initial Level)	
	Underlying Index C: 950.00 (at or above Coupon Barrier; below Initial Level)	
Second Coupon Observation Date	Underlying Index A: 900.00 (at or above Coupon Barrier; below Initial Level)	$0.15625 (Contingent Coupon – Notes are not called)
	Underlying Index B: 850.00 (at or above Coupon Barrier; below Initial Level)	
	Underlying Index C: 950.00 (at or above Coupon Barrier; below Initial Level)	
Third Coupon Observation Date	Underlying Index A: 1,200.00 (above Initial Level)	$0.15625 (Contingent Coupon – Notes are not called)
	Underlying Index B: 850.00 (at or above Coupon Barrier; below Initial Level)	
	Underlying Index C: 800.00 (at or above Coupon Barrier; below Initial Level)	
Fourth Coupon Observation Date	Underlying Index A: 900.00 (at or above Coupon Barrier; below Initial Level)	$0.00 (Notes are not called)
	Underlying Index B: 500.00 (below Coupon Barrier)	
	Underlying Index C: 950.00 (at or above Coupon Barrier; below Initial Level)	
Fifth through Seventh Coupon Observation Dates	Underlying Index A: Various (below Coupon Barrier)	$0.00 (Notes are not called)
	Underlying Index B: Various (above Initial Level)	
	Underlying Index C: Various (above Initial Level)	
Final Valuation Date	Underlying Index A: 400.00 (below Downside Threshold)	$10.00 + [$10.00 × Underlying Index Return] =
	Underlying Index B: 1,300.00 (above Initial Level)	$10.00 + [$10.00 × -60%] =
	Underlying Index C: 1,200.00 (above Initial Level)	$10.00 - $6.00 =
		$4.00 (Payment at Maturity)
	Total Payment:	$4.46875 (-55.3125% return)

Since the Notes are not called and the Final Level of the Least Performing Underlying Index is below its Downside Threshold, we will pay you at maturity $4.00 per Note. When added to the Contingent Coupon payments of

$0.46875 received in respect of prior Coupon Observation Dates, we will have paid you $4.46875 per Note, for a loss on the Notes of 55.3125%.

The Notes differ from ordinary debt securities in that, among other features, we are not necessarily obligated to repay the full amount of your initial investment. If the Notes are not called on a Call Observation Date, you may lose some or all of your initial investment. Specifically, if the Notes are not called and the Final Level of one or more of the Underlying Indices is less than its Downside Threshold, you will lose 1% (or a fraction thereof) of your principal amount for each 1% (or a fraction thereof) that the Underlying Index Return of the Least Performing Underlying Index is less than zero.

Any payment on the Notes, including payments in respect of an automatic call, Contingent Coupon or any repayment of principal provided at maturity, is dependent on our ability to satisfy our obligations when they come due. If we are unable to meet our obligations, you may not receive any amounts due to you under the Notes.

What Are the Tax Consequences of the Notes?

U.S. Federal Income Tax Consequences

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

The following section supplements the discussion of U.S. federal income taxation in the accompanying prospectus and prospectus supplement. It applies only to those holders who are not excluded from the discussion of U.S. federal income taxation in the accompanying prospectus. It does not apply to holders subject to special rules including accrual method taxpayers subject to special tax accounting rules under Section 451(b) of the Code. This discussion applies only to U.S. holders and non-U.S. holders that will purchase the Notes upon original issuance and will hold the Notes as capital assets for U.S. federal income tax purposes. In addition, the discussion below assumes that an investor in the Notes will be subject to a significant risk that it will lose a significant amount of its investment in 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.

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

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

In the opinion of our counsel, Morrison & Foerster LLP, it would generally be reasonable to treat a Note with terms described in this document as a callable pre-paid contingent income-bearing cash-settled derivative contract linked to the Underlying Indices for U.S. federal income tax purposes, and the terms of the Notes require a holder and us (in the absence of a change in law or an administrative or judicial ruling to the contrary) to treat the Notes for all tax purposes in accordance with such characterization. If the Notes are so treated, a U.S. holder should generally recognize capital gain or loss upon the sale or maturity of the Notes in an amount equal to the difference between the amount a holder receives at such time and the holder's tax basis in the Notes. Capital gain recognized by an individual U.S. holder is generally taxed at preferential rates where the property is held for more than one year and is generally taxed at ordinary income rates where the property is held for one year or less. The deductibility of capital losses is subject to limitations. In addition, we intend to treat the Contingent Coupons as U.S. source income for U.S. federal income tax purposes. The following discussion assumes that the treatment described in this paragraph is proper and will be respected.

Although the U.S. federal income tax treatment of the Contingent Coupons is uncertain, we intend to take the position, and the following discussion assumes, that such Contingent Coupons (including any coupon paid on or with respect to the call or maturity date) constitute taxable ordinary income to a U.S. holder at the time received or accrued in accordance with the holder's regular method of accounting. If the Notes are treated as described above, a U.S. holder should generally recognize capital gain or loss upon the call, sale or maturity of the Notes in an amount equal to the difference between the amount a holder receives at such time (other than amounts properly attributable to any Contingent Coupon, which would be taxed, as described above, as ordinary income) and the holder's tax basis in the Notes. In general, a U.S. holder's tax basis in the Notes will be equal to the price the holder paid for the Notes. Capital gain recognized by an individual U.S. holder is generally taxed at preferential rates where the property is held for more than one year and is generally taxed at ordinary income rates where the property is held for one year or less. The ordinary income treatment of the Contingent Coupons, in conjunction with the capital loss treatment of any loss recognized upon the sale, exchange or maturity of the Notes, could result in adverse tax consequences to a holder because the deductibility of capital losses is subject to limitations.

Alternative Treatments. Alternative tax treatments of the Notes are also possible and the IRS might assert that a treatment other than that described above is more appropriate. For example, it would also be possible to treat the Notes, and the IRS might assert that the Notes should be treated, as a single debt instrument.

Because the Notes have a term that exceeds one year, such a debt instrument would be subject to the special tax rules governing contingent payment debt instruments. If the Notes are so treated, a holder would generally be required to accrue interest income over the term of the Notes based upon the yield at which we would issue a non-contingent fixed-rate debt instrument with other terms and conditions similar to the Notes. In addition, any gain a holder might recognize upon the call, sale or maturity of the Notes would be ordinary income and any loss recognized by a holder at such time would generally be ordinary loss to the extent of interest that same holder included in income in the current or previous taxable years in respect of the Notes, and thereafter, would be capital loss.

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

The IRS has released a notice that may affect the taxation of holders of the Notes. According to the notice, the IRS and the U.S. Treasury Department are actively considering whether the holder of an instrument similar to the Notes should be required to accrue ordinary income on a current basis. It is not possible to determine what guidance they will ultimately issue, if any. It is possible, however, that under such guidance, holders of the Notes will ultimately be required to accrue income currently and this could be applied on a retroactive basis.

The IRS and the U.S. Treasury Department are also considering other relevant issues, including whether additional gain or loss from such instruments should be treated as ordinary or capital and whether the special "constructive ownership rules" of Section 1260 of the Internal Revenue Code, which very generally can operate to recharacterize certain long-term capital gains as ordinary income and impose an interest charge, might be applied to such instruments. Holders are urged to consult their tax advisors concerning the significance, and the potential

impact, of the above considerations. We intend to treat the Notes for U.S. federal income tax purposes in accordance with the treatment described in this document unless and until such time as the U.S. Treasury Department and IRS determine that some other treatment is more appropriate.

Backup Withholding and Information Reporting. Payments made with respect to the Notes and proceeds from the sale of the Notes may be subject to a backup withholding tax unless, in general, the holder complies with certain procedures or is an exempt recipient. Any amounts so withheld generally will be refunded by the IRS or allowed as a credit against the holder's U.S. federal income tax liability, provided the holder makes a timely filing of an appropriate tax return or refund claim to the IRS.

Reports will be made to the IRS and to holders that are not exempted from the reporting requirements.

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.

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

While the U.S. federal income tax treatment of the Notes (including proper characterization of the Contingent Coupons for U.S. federal income tax purposes) is uncertain, U.S. federal income tax at a 30% rate (or at a lower rate under an applicable income tax treaty) will be withheld in respect of the Contingent Coupons paid to a non-U.S. holder unless such payments are effectively connected with the conduct by the non-U.S. holder of a trade or business in the U.S. (in which case, to avoid withholding, the non-U.S. holder will be required to provide a Form W-8ECI). We will not pay any additional amounts in respect of such withholding. To claim benefits under an income tax treaty, a non-U.S. holder must obtain a taxpayer identification number and certify as to its eligibility under the appropriate treaty's limitations on benefits article, if applicable (which certification may generally be made on a Form W-8BEN or Form W-8BEN-E, or a substitute or successor form). In addition, special rules may apply to claims for treaty benefits made by corporate non-U.S. holders. A non-U.S. holder that is eligible for a reduced rate of U.S. federal withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the IRS. The availability of a lower rate of withholding or an exemption from withholding under an applicable income tax treaty will depend on the proper characterization of the Contingent Coupons under U.S. federal income tax laws and whether such treaty rate or exemption applies to such Contingent Coupon payments. No assurance can be provided on the proper characterization of the Contingent Coupons for U.S. federal income tax purposes and, accordingly, no assurance can be provided on the availability of benefits under any income tax treaty. Non-U.S. holders must consult their tax advisors in this regard.

Except as discussed below, a non-U.S. holder will generally not be subject to U.S. federal income or withholding tax on any gain (not including for the avoidance of doubt any amounts properly attributable to any Contingent Coupon which would be subject to the rules discussed in the previous paragraph) upon the call, sale or maturity of the Notes, provided that (i) the holder complies with any applicable certification requirements (which certification may generally be made on a Form W-8BEN or Form W-8BEN-E, or a substitute or successor form), (ii) the payment is not effectively connected with the conduct by the holder of a U.S. trade or business, and (iii) if the holder is a non-resident alien individual, such holder is not present in the U.S. for 183 days or more during the taxable year of the call, sale or maturity of the Notes. In the case of (ii) above, the holder generally would be subject to U.S. federal income tax with respect to any income or gain in the same manner as if the holder were a U.S. holder and, in the case of a holder that is a corporation, the holder may also be subject to a branch profits tax equal to 30% (or such lower rate provided by an applicable U.S. income tax treaty) of a portion of its earnings and profits for the taxable year that are effectively connected with its conduct of a trade or business in the U.S., subject to certain adjustments. Payments made to a non-U.S. holder may be subject to information reporting and to backup withholding unless the holder complies with applicable certification and identification requirements as to its foreign status. As discussed above, alternative characterizations of the Notes for U.S. federal income tax purposes are possible. Should an alternative characterization, by reason of change or clarification of the law, by regulation or otherwise, cause payments as to the Notes to become subject to withholding tax in addition to the withholding tax described above, we will withhold tax at the applicable statutory rate. The IRS has also indicated that it is considering whether income in respect of instruments such as the Notes should be subject to withholding tax. Prospective investors should consult their own tax advisors in this regard.

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, 2023. 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 Underlying Indices or the Notes (for example, upon an Underlying Index rebalancing), and following such occurrence the Notes could be treated as subject to withholding on dividend equivalent payments. Non-U.S. holders that enter, or have entered, into other transactions in respect of the Underlying Indices 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.

Foreign Account Tax Compliance Act. The Foreign Account Tax Compliance Act ("FATCA") imposes a 30% U.S. withholding tax on certain U.S. source payments of interest (and original issue discount), dividends, or other fixed or determinable annual or periodical gain, profits, and income, and on the gross proceeds from a disposition of property of a type which can produce U.S. source interest or dividends ("Withholdable Payments"), if paid to a foreign financial institution (including amounts paid to a foreign financial institution on behalf of a holder), unless such institution enters into an agreement with the U.S. Treasury Department to collect and provide to the U.S. Treasury Department certain information regarding U.S. financial account holders, including certain account holders that are foreign entities with U.S. owners, with such institution, or otherwise complies with the legislation. In addition, the Notes may constitute a "financial account" for these purposes and, thus, be subject to information reporting requirements pursuant to FATCA. FATCA also generally imposes a withholding

tax of 30% on Withholdable Payments made to a non-financial foreign entity unless such entity provides the withholding agent with a certification that it does not have any substantial U.S. owners or a certification identifying the direct and indirect substantial U.S. owners of the entity. Under certain circumstances, a holder may be eligible for refunds or credits of such taxes.

Recently proposed regulations eliminate the requirement of withholding on payments of gross proceeds from the sale or disposition of financial instruments. The U.S. Treasury Department has indicated that taxpayers may rely on these proposed regulations pending their finalization. If we determine withholding is appropriate with respect to the Notes, we will withhold tax at the applicable statutory rate, and we will not pay any additional amounts in respect of such withholding. Therefore, if such withholding applies, any payments on the Notes will be significantly less than what you would have otherwise received. Foreign financial institutions and non-financial foreign entities located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules. Prospective investors are urged to consult with their own tax advisors regarding the possible implications of FATCA on their 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 "Tax Consequences—Canadian Taxation" in the accompanying prospectus, which you should carefully review prior to investing in the Notes.

Information About the Underlying Indices

We have derived all information contained in this document regarding each of the Underlying Indices, including, without limitation, its make up, method of calculation, and changes in its components, from publicly available sources. The information reflects the policies of, and is subject to change by, the applicable index sponsor. Each index sponsor, which owns the copyright and all other rights to the applicable Underlying Index, has no obligation to continue to publish, and may discontinue publication of, that Underlying Index. The consequences of an index sponsor discontinuing publication of the applicable Underlying Index are discussed below under the heading "General Terms of the Notes—Discontinuation of an Underlying Index; Alteration of Method of Calculation." None of us, UBS or RBCCM accepts any responsibility for the calculation, maintenance or publication of any Underlying Index or any successor index.

The S&P 500® Index

The SPX is intended to provide an indication of the pattern of common stock price movement in the large capitalization segment of the U.S. equity market. The calculation of the level of the SPX is based on the relative value of the aggregate market value of the common stocks of 500 companies as of a particular time compared to the aggregate average market value of the common stocks of 500 similar companies during the base period of the years 1941 through 1943.

The index sponsor calculates the SPX by reference to the prices of the constituent stocks of the SPX without taking account of the value of dividends paid on those stocks. As a result, the return on the Notes will not reflect the return you would realize if you actually owned the SPX constituent stocks and received the dividends paid on those stocks.

Computation of the SPX

While the index sponsor currently employs the following methodology to calculate the SPX, no assurance can be given that the index sponsor will not modify or change this methodology in a manner that may affect the Payment at Maturity.

Historically, the market value of any component stock of the SPX was calculated as the product of the market price per share and the number of then outstanding shares of such component stock. In March 2005, the index sponsor began shifting the SPX halfway from a market capitalization weighted formula to a float-adjusted formula, before moving the SPX to full float adjustment on September 16, 2005. The index sponsor's criteria for selecting stocks for the SPX did not change with the shift to float adjustment. However, the adjustment affects each company's weight in the SPX.

Under float adjustment, the share counts used in calculating the SPX reflect only those shares that are available to investors, not all of a company's outstanding shares. Float adjustment excludes shares that are closely held by control groups, other publicly traded companies or government agencies.

In September 2012, all shareholdings representing more than 5% of a stock's outstanding shares, other than holdings by "block owners," were removed from the float for purposes of calculating the SPX. Generally, these "control holders" will include officers and directors, private equity, venture capital and special equity firms, other publicly traded companies that hold shares for control, strategic partners, holders of restricted shares, ESOPs, employee and family trusts, foundations associated with the company, holders of unlisted share classes of stock, government entities at all levels (other than government retirement/pension funds) and any individual person who controls a 5% or greater stake in a company as reported in regulatory filings. However, holdings by block owners, such as depositary banks, pension funds, mutual funds and ETF providers, 401(k) plans of the company, government retirement/pension funds, investment funds of insurance companies, asset managers and investment funds, independent foundations and savings and investment plans, will ordinarily be considered part of the float.

Treasury stock, stock options, restricted shares, equity participation units, warrants, preferred stock, convertible stock, and rights are not part of the float. Shares held in a trust to allow investors in countries outside the country of domicile, such as depositary shares and Canadian exchangeable shares are normally part of the float unless those shares form a control block.

For each stock, an investable weight factor ("IWF") is calculated by dividing the available float shares by the total shares outstanding. Available float shares are defined as the total shares outstanding less shares held by control holders. This calculation is subject to a 5% minimum threshold for control blocks. For example, if a company's officers and directors hold 3% of the company's shares, and no other control group holds 5% of the company's shares, the index sponsor would assign that company an IWF of 1.00, as no control group meets the 5% threshold. However, if a company's officers and directors hold 3% of the company's shares and another control group holds 20% of the company's shares, the index sponsor would assign an IWF of 0.77, reflecting the fact that 23% of the company's outstanding shares are considered to be held for control. As of July 31, 2017, companies with multiple share class lines are no longer eligible for inclusion in the SPX. Constituents of the SPX prior to July 31, 2017 with multiple share class lines will be grandfathered in and continue to be included in the SPX. If a constituent company of the SPX reorganizes into a multiple share class line structure, that company will remain in the SPX at the discretion of the S&P Index Committee in order to minimize turnover

The SPX is calculated using a base-weighted aggregate methodology. The level of the SPX reflects the total market value of all 500 component stocks relative to the base period of the years 1941 through 1943. An indexed number is used to represent the results of this calculation in order to make the level easier to work with and track over time. The actual total market value of the component stocks during the base period of the years 1941 through 1943 has been set to an indexed level of 10. This is often indicated by the notation 1941- 43 = 10. In practice, the daily calculation of the SPX is computed by dividing the total market value of the component stocks by the "index divisor." By itself, the index divisor is an arbitrary number. However, in the context of the calculation of the SPX, it serves as a link to the original base period level of the SPX. The index divisor keeps the SPX comparable over time and is the manipulation point for all adjustments to the SPX, which is index maintenance.

Index Maintenance

Index maintenance includes monitoring and completing the adjustments for company additions and deletions, share changes, stock splits, stock dividends, and stock price adjustments due to company restructuring or spinoffs. Some corporate actions, such as stock splits and stock dividends, require changes in the common shares outstanding and the stock prices of the companies in the SPX, and do not require index divisor adjustments.

To prevent the level of the SPX from changing due to corporate actions, corporate actions which affect the total market value of the SPX require an index divisor adjustment. By adjusting the index divisor for the change in market value, the level of the SPX remains constant and does not reflect the corporate actions of individual companies in the SPX. Index divisor adjustments are made after the close of trading and after the calculation of the index closing level.

Changes in a company's shares outstanding and IWF due to its acquisition of another public company are made as soon as reasonably possible. At S&P's discretion, de minimis merger and acquisition share changes are accumulated and implemented with the quarterly share rebalancing.

All other changes of less than 5% are accumulated and made quarterly on the third Friday of March, June, September, and December.

Changes in a company's total shares outstanding of 5% or more due to public offerings are made as soon as reasonably possible. Other changes of 5% or more (for example, due to tender offers, Dutch auctions, voluntary exchange offers, company stock repurchases, private placements, acquisitions of private companies or non-index companies that do not trade on a major exchange, redemptions, exercise of options, warrants, conversion of preferred stock, notes, debt, equity participations, at-the-market stock offerings or other recapitalizations) are made weekly, and are generally announced on Fridays for implementation after the close of trading the following Friday (one week later). If a 5% or more share change causes a company's IWF to change by five percentage points or more, the IWF is updated at the same time as the share change. IWF changes resulting from partial tender offers are considered on a case-by-case basis.

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S&P DOW JONES INDICES DO NOT GUARANTEE THE ADEQUACY, ACCURACY, TIMELINESS AND/OR THE COMPLETENESS OF THE SPX OR ANY DATA RELATED THERETO OR ANY COMMUNICATION, INCLUDING BUT NOT LIMITED TO, ORAL OR WRITTEN COMMUNICATION (INCLUDING ELECTRONIC COMMUNICATIONS) WITH RESPECT THERETO. S&P DOW JONES INDICES SHALL NOT BE SUBJECT TO ANY DAMAGES OR LIABILITY FOR ANY ERRORS, OMISSIONS, OR DELAYS THEREIN. S&P DOW JONES INDICES MAKE NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES, OF MERCHANTABILITY OR FITNESS FOR A

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The graph below illustrates the performance of this Underlying Index from February 7, 2010 to February 7, 2020, reflecting its Initial Level of 3,327.71. The solid line represents its Coupon Barrier and Downside Threshold of 2,329.40, which is equal to 70% of its Initial Level (rounded to two decimal places).

¦ Hypothetical Coupon Barrier / Downside Threshold = 70% of its Initial Level

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 L.P.

The Russell 2000® Index

The RTY was developed by Russell Investments ("Russell") before FTSE International Limited ("FTSE") and Russell combined in 2015 to create FTSE Russell, which is wholly owned by London Stock Exchange Group. Russell began dissemination of the RTY (Bloomberg L.P. index symbol "RTY") on January 1, 1984. The RTY was set to 135 as of the close of business on December 31, 1986. FTSE Russell (the "index sponsor") calculates and publishes the RTY. The RTY is designed to track the performance of the small capitalization segment of the U.S. equity market. As a subset of the Russell 3000® Index, the RTY consists of the smallest 2,000 companies included in the Russell 3000® Index. The Russell 3000® Index measures the performance of the largest 3,000 U.S. companies, representing approximately 98% of the investable U.S. equity market. The RTY is determined, comprised, and calculated by the index sponsor without regard to the Notes.

Selection of Stocks Comprising the RTY

All companies eligible for inclusion in the RTY must be classified as a U.S. company under the index sponsor's country-assignment methodology. If a company is incorporated, has a stated headquarters location, and trades in the same country (American Depositary Receipts and American Depositary Shares are not eligible), then the company is assigned to its country of incorporation. If any of the three factors are not the same, the index sponsor defines three Home Country Indicators ("HCIs"): country of incorporation, country of headquarters, and country of the most liquid exchange (as defined by a two-year average daily dollar trading volume) ("ADDTV") from all exchanges within a country. Using the HCIs, the index sponsor compares the primary location of the company's assets with the three HCIs. If the primary location of its assets matches any of the HCIs, then the company is assigned to the primary location of its assets. If there is insufficient information to determine the country in which the company's assets are primarily located, the index sponsor will use the primary country from which the company's revenues are primarily derived for the comparison with the three HCIs in a similar manner. The index sponsor uses the average of two years of assets or revenues data to reduce potential turnover. If conclusive country details cannot be derived from assets or revenues data, the index sponsor will assign the company to the country of its headquarters, which is defined as the address of the company's principal executive offices, unless that country is a Benefit Driven Incorporation "BDI" country, in which case the company will be assigned to the country of its most liquid stock exchange. BDI countries include: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bonaire, British Virgin Islands, Cayman Islands, Channel Islands, Cook Islands, Curacao, Faroe Islands, Gibraltar, Guernsey, Isle of Man, Jersey, Liberia, Marshall Islands, Panama, Saba, Sint Eustatius, Sint Maarten, and Turks and Caicos Islands. For any companies incorporated or headquartered in a U.S. territory, including countries such as Puerto Rico, Guam, and U.S. Virgin Islands, a U.S. HCI is assigned. "N-shares" of companies controlled by individuals or entities in Mainland China are not eligible for inclusion.

All securities eligible for inclusion in the RTY must trade on a major U.S. exchange. Stocks must have a closing price at or above $1.00 on their primary exchange on the last trading day in May to be eligible for inclusion during annual reconstitution. However, in order to reduce unnecessary turnover, if an existing member's closing price is less than $1.00 on the last day of May, it will be considered eligible if the average of the daily closing prices (from its primary exchange) during the month of May is equal to or greater than $1.00. Initial public offerings are added each quarter and must have a closing price at or above $1.00 on the last day of their eligibility period in order to qualify for index inclusion. If an existing stock does not trade on the "rank day" (typically the last trading day in May, but a confirmed timetable is announced each Spring) but does have a closing price at or above $1.00 on another eligible U.S. exchange, that stock will be eligible for inclusion.

An important criterion used to determine the list of securities eligible for the RTY is total market capitalization, which is defined as the market price as of the last trading day in May for those securities being considered at annual reconstitution times the total number of shares outstanding. Where applicable, common stock, non-restricted exchangeable shares and partnership units/membership interests are used to determine market capitalization. Any other form of shares such as preferred stock, convertible preferred stock, redeemable shares, participating preferred stock, warrants and rights, installment receipts or trust receipts, are excluded from the calculation. If multiple share classes of common stock exist, they are combined. In cases where the common stock share classes act independently of each other (e.g., tracking stocks), each class is considered for inclusion separately. If multiple share classes exist, the pricing vehicle will be designated as the share class with the highest two-year trading volume as of the rank day in May.

Companies with a total market capitalization of less than $30 million are not eligible for the RTY. Similarly, companies with only 5% or less of their shares available in the marketplace are not eligible for the RTY. Royalty trusts, limited liability companies, closed-end investment companies (companies that are required to report Acquired Fund Fees and Expenses, as defined by the SEC, including business development companies), blank check companies, special-purpose acquisition companies, and limited partnerships are also not eligible for inclusion in the Russell U.S. Indices. Exchange traded funds and mutual funds are also excluded. Bulletin board, pink-sheets, and over-the-counter ("OTC") traded securities are not eligible for inclusion.

Annual reconstitution is a process by which the RTY is completely rebuilt. On the rank last trading day of May, all eligible securities are ranked by their total market capitalization. The largest 4,000 become the Russell 3000E Index, and the other of the index sponsor's indexes are determined from that set of securities. Reconstitution of the RTY occurs on the last Friday in June or, when the last Friday in June is the 29th or 30th, reconstitution occurs on the prior Friday. In addition, the index sponsor adds initial public offerings to the RTY on a quarterly basis based on total market capitalization guidelines ranking within the market-adjusted capitalization breaks established during the most recent reconstitution.

After membership is determined, a security's shares are adjusted to include only those shares available to the public. This is often referred to as "free float." The purpose of the adjustment is to exclude from market calculations the capitalization that is not available for purchase and is not part of the investable opportunity set.

License Agreement

FTSE Russell and Royal Bank of Canada have entered into a non-exclusive license agreement providing for the license to Royal Bank of Canada, and certain of its affiliates, in exchange for a fee, of the right to use indices owned and published by FTSE Russell in connection with some securities, including the Notes.

FTSE Russell does not guarantee the accuracy and/or the completeness of the RTY or any data included in the RTY and has no liability for any errors, omissions, or interruptions in the RTY. FTSE Russell makes no warranty, express or implied, as to results to be obtained by the calculation agent, holders of the Notes, or any other person or entity from the use of the RTY or any data included in the RTY in connection with the rights licensed under the license agreement described in this document or for any other use. FTSE Russell makes no express or implied warranties, and hereby expressly disclaims all warranties of merchantability or fitness for a particular purpose with respect to the RTY or any data included in the RTY. Without limiting any of the above information, in no event will FTSE Russell have any liability for any special, punitive, indirect or consequential damages, including lost profits, even if notified of the possibility of these damages.

The Notes are not sponsored, endorsed, sold or promoted by FTSE Russell. FTSE Russell makes no representation or warranty, express or implied, to the owners of the Notes or any member of the public regarding the advisability of investing in securities generally or in the Notes particularly or the ability of the RTY to track general stock market performance or a segment of the same. FTSE Russell's publication of the RTY in no way suggests or implies an opinion by FTSE Russell as to the advisability of investment in any or all of the stocks upon which the RTY is based. FTSE Russell's only relationship to Royal Bank of Canada is the licensing of certain trademarks and trade names of FTSE Russell and of the RTY, which is determined, composed and calculated by FTSE Russell without regard to Royal Bank of Canada or the Notes. FTSE Russell is not responsible for and has not reviewed the Notes nor any associated literature or publications and FTSE Russell makes no representation or warranty express or implied as to their accuracy or completeness, or otherwise. FTSE Russell reserves the right, at any time and without notice, to alter, amend, terminate or in any way change the RTY. FTSE Russell has no obligation or liability in connection with the administration, marketing or trading of the Notes. "Russell 2000®" and "Russell 3000®" are registered trademarks of FTSE Russell in the U.S. and other countries.

The graph below illustrates the performance of this Underlying Index from February 7, 2010 to February 7, 2020, reflecting its Initial Level of 1,656.778. The solid line represents its Coupon Barrier and Downside Threshold of 1,159.745, which is equal to 70% of its Initial Level (rounded to three decimal places).

¦ Hypothetical Coupon Barrier / Downside Threshold = 70% of its Initial Level

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 L.P.

The NASDAQ-100® Index

The NASDAQ-100® Index ("NDX") is a modified market capitalization-weighted index of 100 of the largest stocks of both U.S. and non-U.S. non-financial companies listed on The Nasdaq Stock Market based on market capitalization. It does not contain securities of financial companies, including investment companies. The NASDAQ-100® Index, which includes companies across a variety of major industry groups, was launched on January 31, 1985, with a base index value of 250.00. On January 1, 1994, the base index value was reset to 125.00. The NASDAQ OMX Group, Inc. publishes the NDX. Current information regarding the market value of the NDX is available from NASDAQ OMX Group, Inc. ("NASDAQ OMX") as well as numerous market information services.

The share weights of the component securities of the NDX at any time are based upon the total shares outstanding in each of those securities and are additionally subject, in certain cases, to rebalancing. Accordingly, each underlying stock's influence on the level of the NDX is directly proportional to the value of its share weight.

Index Calculation

At any moment in time, the level of the NDX equals the aggregate value of the then-current share weights of each of the component securities, which are based on the total shares outstanding of each such component security, multiplied by each such security's respective last sale price on The Nasdaq Stock Market (which may be the official closing price published by The Nasdaq Stock Market), and divided by a scaling factor (the "divisor"), which becomes the basis for the reported level of the NDX. The divisor serves the purpose of scaling such aggregate value to a lower order of magnitude, which is more desirable for reporting purposes.

Underlying Stock Eligibility Criteria and Annual Ranking Review

Initial Eligibility Criteria

To be eligible for initial inclusion in the NDX, a security must be listed on The Nasdaq Stock Market and meet the following criteria:

? the security's U.S. listing must be exclusively on the Nasdaq Global Select Market or the Nasdaq Global Market;

? the security must be issued by a non-financial company;

? the security may not be issued by an issuer currently in bankruptcy proceedings;

? the security must generally be a common stock, ordinary share, American Depositary Receipt, or tracking stock (closed-end funds, convertible debentures, exchange traded funds, limited liability companies, limited partnership interests, preferred stocks, rights, shares or units of beneficial interests, warrants, units and other derivative securities are not included in the NDX, nor are the securities of investment companies);

? the security must have a three-month average daily trading volume of at least 200,000 shares;

? if the security is issued by an issuer organized under the laws of a jurisdiction outside the United States, it must have listed options on a recognized market in the United States or be eligible for listed-options trading on a recognized options market in the United States;

? the issuer of the security may not have entered into a definitive agreement or other arrangement which would likely result in the security no longer being eligible;

? the issuer of the security may not have annual financial statements with an audit opinion that is currently withdrawn; and

? the issuer of the security must have "seasoned" on the Nasdaq Stock Market or another recognized market (generally, a company is considered to be seasoned if it has been listed on a market for at least three full months, excluding the first month of initial listing).

Continued Eligibility Criteria

In addition, to be eligible for continued inclusion in the NDX the following criteria apply:

? the security's U.S. listing must be exclusively on the Nasdaq Global Select Market or the Nasdaq Global Market;

? the security must be issued by a non-financial company;

? the security may not be issued by an issuer currently in bankruptcy proceedings;

? the security must have an average daily trading volume of at least 200,000 shares in the previous three-month trading period as measured annually during the ranking review process described below;

? if the issuer of the security is organized under the laws of a jurisdiction outside the United States, then such security must have listed options on a recognized market in the United States or be eligible for listed-options trading on a recognized options market in the United States, as measured annually during the ranking review process;

? the issuer of the security may not have entered into a definitive agreement or other arrangement that would likely result in the security no longer being eligible;

? the security must have an adjusted market capitalization equal to or exceeding 0.10% of the aggregate adjusted market capitalization of the NDX at each month-end. In the event that a company does not meet this criterion for two consecutive month-ends, it will be removed from the NDX effective after the close of trading on the third Friday of the following month; and

? the issuer of the security may not have annual financial statements with an audit opinion that is currently withdrawn.

These eligibility criteria may be revised from time to time by NASDAQ OMX without regard to the Notes.

Annual Ranking Review

The component securities are evaluated on an annual basis (the “Ranking Review”), except under extraordinary circumstances, which may result in an interim evaluation, as follows. Securities that meet the applicable eligibility criteria are ranked by market value. Eligible securities that are already in the NDX and that are ranked in the top 100 eligible securities (based on market capitalization) are retained in the NDX. A security that is ranked 101 to 125 is also retained, provided that such security was ranked in the top 100 eligible securities as of the previous Ranking Review or was added to the NDX subsequent to the previous Ranking Review. Securities not meeting such criteria are replaced. The replacement securities chosen are those eligible securities not currently in the NDX that have the largest market capitalization. The data used in the ranking includes end of October market data and is updated for total shares outstanding submitted in a publicly filed SEC document via EDGAR through the end of November.

Replacements are made effective after the close of trading on the third Friday in December. Moreover, if at any time during the year other than the Ranking Review, a component security is determined by NASDAQ OMX to become ineligible for continued inclusion in the NDX, the security will be replaced with the largest market capitalization security meeting the eligibility criteria listed above and not currently included in the NDX.

Index Maintenance

In addition to the Ranking Review, the securities in the NDX are monitored every day by NASDAQ OMX with respect to changes in total shares outstanding arising from corporate events, such as stock dividends, stock splits and certain spin offs and rights issuances. NASDAQ OMX has adopted the following quarterly scheduled weight adjustment procedures with respect to those changes. If the change in total shares outstanding arising from a corporate action is greater than or equal to 10%, that change will be made to the NDX as soon as practical, normally within ten days of such corporate action. Otherwise, if the change in total shares outstanding is less than 10%, then all such changes are accumulated and made effective at one time on a quarterly basis after the close of trading on the third Friday in each of March, June, September and December.

In either case, the share weights for those component securities are adjusted by the same percentage amount by which the total shares outstanding have changed in those securities. Ordinarily, whenever there is a change in the share weights, a change in a component security, or a change to the price of a component security due to spin-off, rights issuances or special cash dividends, NASDAQ OMX adjusts the divisor to ensure that there is no discontinuity in the level of the NDX that might otherwise be caused by any of those changes. All changes will be announced in advance.

Index Rebalancing

Under the methodology employed, on a quarterly basis coinciding with NASDAQ OMX’s quarterly scheduled weight adjustment procedures, the component securities are categorized as either “Large Stocks” or “Small Stocks” depending on whether their current percentage weights (after taking into account scheduled weight adjustments due to stock repurchases, secondary offerings or other corporate actions) are greater than, or less than or equal to, the average percentage weight in the NDX (i.e., as a 100-stock index, the average percentage weight in the NDX is 1%).

This quarterly examination will result in an index rebalancing if it is determined that: (1) the current weight of the single largest market capitalization component security is greater than 24% or (2) the “collective weight” of those component securities, the individual current weights of which are in excess of 4.5%, when added together, exceed 48%. In addition, NASDAQ OMX may conduct a special rebalancing at any time if it is determined to be necessary to maintain the integrity of the NDX.

If either one or both of these weight distribution requirements are met upon quarterly review, or NASDAQ OMX determines that a special rebalancing is required, a weight rebalancing will be performed. First, relating to weight distribution requirement (1) above, if the current weight of the single largest component security exceeds 24%, then the weights of all Large Stocks will be scaled down proportionately towards 1% by enough of an amount for the adjusted weight of the single largest component security to be set to 20%. Second, relating to weight distribution requirement (2) above, for those component securities whose individual current weights or adjusted weights in accordance with the preceding step are in excess of 4.5%, if their “collective weight” exceeds 48%, then the weights of all Large Stocks will be scaled down proportionately towards 1% by just enough amount for the “collective weight,” so adjusted, to be set to 40%.

The aggregate weight reduction among the Large Stocks resulting from either or both of the above rescalings will then be redistributed to the Small Stocks in the following iterative manner. In the first iteration, the weight of the largest Small Stock will be scaled upwards by a factor which sets it equal to the average Index weight of 1.0%. The weights of each of the smaller remaining Small Stocks will be scaled up by the same factor, reduced in relation to each stock’s relative ranking among the Small Stocks, such that the smaller the component security in the ranking, the less the scale-up of its weight. This is intended to reduce the market impact of the weight rebalancing on the smallest component securities in the NDX.

In the second iteration, the weight of the second largest Small Stock, already adjusted in the first iteration, will be scaled upwards by a factor which sets it equal to the average index weight of 1%. The weights of each of the smaller remaining Small Stocks will be scaled up by this same factor, reduced in relation to each stock’s relative ranking among the Small Stocks, such that, once again, the smaller the component stock in the ranking, the less the scale-up of its weight.

Additional iterations will be performed until the accumulated increase in weight among the Small Stocks exactly equals the aggregate weight reduction among the Large Stocks from rebalancing in accordance with weight distribution requirement (1) and/or weight distribution requirement (2).

Then, to complete the rebalancing procedure, once the final percent weights of each of the component securities are set, the share weights will be determined anew based upon the last sale prices and aggregate capitalization of the NDX at the close of trading on the last day in February, May, August and November. Changes to the share weights will be made effective after the close of trading on the third Friday in March, June, September and December, and an adjustment to the divisor will be made to ensure continuity of the NDX.

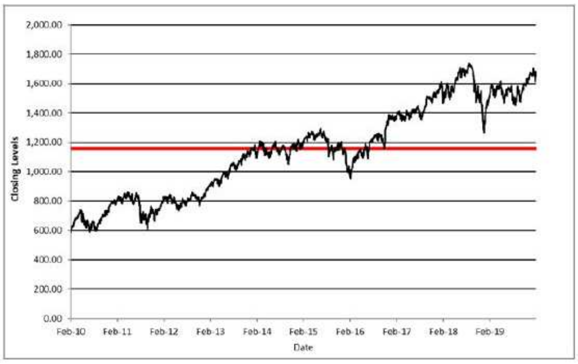
Ordinarily, new rebalanced weights will be determined by applying the above procedures to the current share weights. However, NASDAQ OMX may from time to time determine rebalanced weights, if necessary, by instead applying the above procedure to the actual current market capitalization of the component securities. In those instances, NASDAQ OMX would announce the different basis for rebalancing prior to its implementation.

License Agreement

The Notes are not sponsored, endorsed, sold or promoted by Nasdaq, Inc. or its affiliates (collectively, “Nasdaq”). Nasdaq has not passed on the legality or suitability of, or the accuracy or adequacy of descriptions and disclosures relating to, the Notes. Nasdaq makes no representation or warranty, express or implied to the owners of the Notes, or any member of the public regarding the advisability of investing in securities generally or in the Notes particularly, or the ability of the NDX to track general stock market performance. Nasdaq’s only relationship to us is in the licensing of the Nasdaq®, NDX trademarks or service marks, and certain trade names of Nasdaq and the use of the NDX which are determined, composed and calculated by Nasdaq without regard to us or the securities. Nasdaq has no obligation to take the needs of us or the owners of the Notes into consideration in determining, composing or calculating the NDX. Nasdaq is not responsible for and has not participated in the determination of the timing of, prices at, or quantities of the Notes to be issued or in the determination or calculation of the equation by which the Notes are to be converted into cash. Nasdaq has no liability in connection with the administration, marketing or trading of the Notes.

NASDAQ DOES NOT GUARANTEE THE ACCURACY AND/OR UNINTERRUPTED CALCULATION OF THE NDX OR ANY DATA INCLUDED THEREIN. NASDAQ MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO RESULTS TO BE OBTAINED BY LICENSEE, OWNERS OF THE NOTES, OR ANY OTHER PERSON OR ENTITY FROM THE USE OF THE NDX OR ANY DATA INCLUDED THEREIN. NASDAQ MAKES NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE NDX OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL NASDAQ HAVE ANY LIABILITY FOR ANY LOST PROFITS OR SPECIAL, INCIDENTAL, PUNITIVE, INDIRECT, OR CONSEQUENTIAL DAMAGES, EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. NASDAQ®, NASDAQ 100® AND NASDAQ 100 INDEX® ARE TRADE OR SERVICE MARKS OF NASDAQ AND ARE INCENSED FOR USE BY US. THE NOTES HAVE NOT BEEN PASSED ON BY NASDAQ AS TO THEIR LEGALITY OR SUITABILITY. THE NOTES ARE NOT ISSUED, ENDORSED, SOLD OR PROMOTED BY NASDAQ. NASDAQ MAKES NO WARRANTIES AND BEARS NO LIABILITY WITH RESPECT TO THE NOTES.

The graph below illustrates the performance of this Underlying Index from February 7, 2010 to February 7, 2020, reflecting its Initial Level of 9,401.098. The solid line represents its Coupon Barrier and Downside Threshold of 6,580.769, which is equal to 70% of its Initial Level (rounded to three decimal places).



¦ Hypothetical Coupon Barrier / Downside Threshold = 70% of its Initial Level

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 L.P

Correlation of the Underlying Indices

The graph below illustrates the daily performance of the Underlying Indices from February 7, 2010 to February 7, 2020. For comparison purposes, each Underlying Index has been normalized to have a closing level of 100.00 on February 7, 2010 by dividing the closing level of that Underlying Index on each day by the closing level of that Underlying Index on February 7, 2010 and multiplying by 100.00. We obtained the closing levels used to determine the normalized closing levels set forth below from Bloomberg L.P., without independent verification.

Past performance of the Underlying Indices is not indicative of their future performance.

The correlation of a two or more of indices represents a statistical measurement of the degree to which the returns of those indices were similar to each other over a given period in terms of timing and direction (i.e., positive or negative). The closer the relationship of the daily returns of the Underlying Indices over a given period, the more positively correlated those Underlying Indices are. The graph above illustrates the historical performance of the indices relative to one another over the time period shown and provides an indication of how close the relative performance of the daily returns of one Underlying Index has historically been to the others. The lower (or more negative) the correlation between two or more Underlying Indices, the less likely it is that those indices will move in the same direction and, therefore, the greater the potential for one of those indices to close below its Coupon Barrier or Downside Threshold on any Coupon Observation Date or the Final Valuation Date, respectively. This is because the less positively correlated two or more Underlying Indices are, the greater the likelihood that at least one of those indices will decrease in value. This results in a greater potential for a Contingent Coupon not to be paid during the term of the Notes and for a loss of principal at maturity. However, even if the Underlying Indices have a higher positive correlation, one or more of those indices might close below its Coupon Barrier or Downside Threshold on a Coupon Observation Date or the Final Valuation Date, as those Underlying Indices may decrease in value together.

The lower the correlation between two or more Underlying Indices, the greater the potential for one of those indices to close below its Coupon Barrier or its Downside Threshold on any Coupon Observation Date or the Final Valuation Date, respectively. Therefore, the greater the number of Underlying Indices, the greater the potential for missed Contingent Coupons and for a loss of principal at maturity. We determine the Contingent Coupons for the Notes based, in part, on the correlation among the Underlying Indices, calculated using internal models at the time the terms of the Notes are set. As discussed above, increased risk resulting from lower correlation or from a greater number of Underlying Indices will be reflected in a higher Contingent Coupon than would be payable on securities linked to fewer Underlying Indices or that have a higher degree of correlation.

General Terms of the Notes

The following description of the terms of the Notes supplements the description of the general terms of the debt securities set forth under the headings "Description of the Notes We May Offer" in the accompanying prospectus supplement and "Description of Debt Securities" in the accompanying prospectus. Capitalized terms used but not defined in this pricing supplement have the meanings assigned in the accompanying prospectus supplement and prospectus. The term "Note" refers to $10 in principal amount of the Notes.

General

The Notes are senior unsecured debt obligations of Royal Bank of Canada that are linked to the Underlying Indices. The Notes will be issued under an indenture dated October 23, 2003, as it may be amended or supplemented from time to time, between us and The Bank of New York Mellon (as successor to JPMorgan Chase Bank, N.A.), as trustee.

The Notes are unsecured debt obligations and are not savings accounts or deposits of a bank. The Notes are not insured or guaranteed by the Canada Deposit Insurance Corporation, the U.S. Federal Deposit Insurance Corporation, or any other governmental agency of Canada or the United States.

The Notes are our unsecured and unsubordinated obligations and will rank *pari passu* with all of our other unsecured and unsubordinated obligations.

The Notes will be issued in denominations of $10 and integral multiples thereof. The principal amount of each Note is $10. The Notes will be represented by one or more permanent global securities registered in the name of The Depository Trust Company, or DTC, or its nominee, as described under "Description of Debt Securities—Ownership and Book-Entry Issuance" and "—Considerations Relating to DTC" in the prospectus.

All references to the "debt securities" in the accompanying prospectus and all references to the "notes" in the accompanying prospectus supplement shall be read as and shall apply to the "Notes" for the purpose of this pricing supplement. Unless the context otherwise requires, references to the "debt securities," "notes" and the "Notes" in the prospectus, prospectus supplement and this document can be read interchangeably and are synonymous.

If any required payment on the Notes is due on a day that is not a business day, the payment will be paid on the next business day, and no interest will accrue in respect of that postponement.

A "closing level" will be the official closing level of the applicable Underlying Index on the applicable trading day, as determined by the calculation agent.

A “trading day” is a day, as determined by the calculation agent, on which trading is generally conducted on (i) the relevant exchanges (as defined below) for the applicable Underlying Index or the successor index and (ii) the exchanges on which futures or options contracts related to that Underlying Index or the successor index are traded, other than a day on which trading on such relevant exchange or exchange on which such futures or options contracts are traded is scheduled to close prior to its regular weekday closing time.

If any Coupon Observation Date or Call Observation Date (each, an “Observation Date”) is not a trading day or if there is a market disruption event on that day, the applicable Observation Date will be postponed to the immediately succeeding trading day during which no market disruption event shall have occurred or be continuing. In no event, however, will an Observation Date be postponed more than ten business days following the date originally scheduled. If the tenth business day following the date originally scheduled to be the applicable Observation Date is not a trading day, or if there is a market disruption event on that date, the calculation agent will determine the closing level for the applicable Underlying Index in accordance with the formula for and method of calculating that Underlying Index last in effect prior to commencement of the market disruption event (or prior to the non-trading day), using the closing price (or, if trading in the relevant securities has been materially suspended or materially limited, the calculation agent’s good faith estimate of the closing price that would have prevailed but for such suspension or limitation or non-trading day) on that tenth scheduled business day of each security most recently constituting that Underlying Index.

For the avoidance of doubt, if an Underlying Index is subject to a non-trading day or market disruption event only the closing level of that Underlying Index shall be postponed; the closing level of any Underlying Index that is not so affected shall be determined on the scheduled Observation Date.

If, due to a market disruption event or otherwise, an Observation Date is postponed, the applicable Call Settlement Date or Coupon Payment Date will be postponed by the same number of business days. However, if the Final Valuation Date is postponed so that it falls less than three business days prior to the scheduled maturity date, the maturity date will be the third business day following the Final Valuation Date, as so postponed.

If a Coupon Payment Date or the maturity date is not a business day, then such date will be postponed to the next succeeding business day following the scheduled Coupon Payment Date or maturity date.

A “business day” is any day other than a day on which banking institutions in The City of New York are authorized or required by law, regulation or executive order to close or a day on which transactions in dollars are not conducted.

Subject to the foregoing and to applicable law (including, without limitation, U.S. federal laws), we or our affiliates may, at any time and from time to time, purchase outstanding Notes by tender, in the open market or by private agreement.

Calculation Agent

RBC Capital Markets, LLC will act as the calculation agent. The calculation agent will determine, among other things, the level of each Underlying Index on each Observation Date, and the payments to be made, if any, on the Notes. In addition, the calculation agent will

determine whether there has been a market disruption event or a discontinuation of any Underlying Index and whether there has been a material change in the method of calculating an Underlying Index. All determinations made by the calculation agent will be at the sole discretion of the calculation agent and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different calculation agent from time to time after the date of this document without your consent and without notifying you.

All calculations with respect to the level of each Underlying Index will be rounded to the nearest one hundred-thousandth, with five one-millionths rounded upward (*e.g.*, .876545 would be rounded to .87655); all dollar amounts related to determination of the payment per $10 in principal amount of the Notes, if any, will be rounded to the nearest one ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .87645 would be rounded up to .8765); and all dollar amounts paid, if any, on the aggregate principal amount of Notes per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Events

Certain events may prevent the calculation agent from determining the closing level of each Underlying Index, and consequently, the amount, if any, that we will pay to you on the Notes. These events may include disruptions or suspensions of trading on the markets as a whole. We refer to each of these events individually as a “market disruption event.”

With respect to any Underlying Index and any relevant successor index, a “market disruption event,” means:

? a suspension, absence or material limitation of trading of equity securities then constituting 20% or more of the level of the Underlying Index (or the relevant successor index) on the relevant exchanges (as defined below) for such securities for more than two hours of trading during, or during the one hour period preceding the close of, the principal trading session on such relevant exchange; or

? a breakdown or failure in the price and trade reporting systems of any relevant exchange as a result of which the reported trading prices for equity securities then constituting 20% or more of the level of the Underlying Index (or the relevant successor index) during the one hour preceding the close of the principal trading session on such relevant exchange are materially inaccurate; or

? a suspension, absence or material limitation of trading on the primary exchange or market for trading in futures or options contracts related to the Underlying Index (or the relevant successor index) for more than two hours of trading during, or during the one hour period preceding the close of, the principal trading session on such exchange or market; or

? a decision to permanently discontinue trading in the relevant futures or options contracts;

in each case as determined by the calculation agent in its sole discretion; and

? a determination by the calculation agent in its sole discretion that the event described above materially interfered with our ability or the ability of any of our affiliates to adjust or unwind all or a material portion of any hedge with respect to the Notes.

For purposes of determining whether a market disruption event with respect to any Underlying Index (or the relevant successor index) exists at any time, if trading in a security included in the Underlying Index (or the relevant successor index) is materially suspended or materially limited at that time, then the relevant percentage contribution of that security to the level of the Underlying Index (or the relevant successor index) will be based on a comparison of:

? the portion of the level of the Underlying Index (or the relevant successor index) attributable to that security relative to

? the overall level of the Underlying Index (or the relevant successor index),

in each case immediately before that suspension or limitation.

For purposes of determining whether a market disruption event with respect to any Underlying Index (or the relevant successor index) has occurred:

? a limitation on the hours or number of days of trading will not constitute a market disruption event if it results from an announced change in the regular business hours of the relevant exchange, or the primary exchange or market for trading in futures or options contracts related to the Underlying Index (or the relevant successor index);

? limitations pursuant to the rules of any relevant exchange similar to NYSE Rule 80B (or any applicable rule or regulation enacted or promulgated by any other self-regulatory organization or any government agency of scope similar to NYSE Rule 80B as determined by the calculation agent) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading;

? a suspension of trading in futures or options contracts on the Underlying Index (or the relevant successor index) by the primary exchange or market trading in such contracts by reason of

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

will, in each such case, constitute a suspension, absence or material limitation of trading in futures or options contracts related to the Underlying Index (or the relevant successor index); and

? a “suspension, absence or material limitation of trading” on any relevant exchange or on the primary exchange or market on which futures or options contracts related to the Underlying Index (or the relevant successor index) are traded will not include any time when such exchange or market is itself closed for trading under ordinary circumstances.

“Relevant exchange” means, with respect to any Underlying Index or any relevant successor index, the primary exchange or market of trading for any security (or any combination thereof) then included in that Underlying Index or such successor index, as applicable.

Discontinuation of an Underlying Index; Alteration of Method of Calculation

If the index sponsor of an Underlying Index discontinues publication of that Underlying Index and the index sponsor or another entity publishes a successor or substitute index that the calculation agent determines, in its sole discretion, to be comparable to the discontinued Underlying Index (such index being referred to herein as a “successor index”), then the closing levels of that Underlying Index will be determined by reference to the level of such successor index at the close of trading on the relevant exchange for the successor index on such day.

Upon any selection by the calculation agent of a successor index, the calculation agent will cause written notice to be promptly furnished to the trustee, to us and to the holders of the Notes.

If an index sponsor discontinues publication of an Underlying Index prior to, and that discontinuation is continuing on or prior to the Final Valuation Date, and the calculation agent determines, in its sole discretion, that no successor index is available at that time or the calculation agent has previously selected a successor index and publication of that successor index is discontinued prior to, and that discontinuation is continuing on, the applicable trading day, then the calculation agent will determine the closing level of that Underlying Index for that date. The closing level will be computed by the calculation agent in accordance with the formula for and method of calculating that Underlying Index or successor index, as applicable, last in effect prior to the discontinuation, using the closing price (or, if trading in the relevant securities has been materially suspended or materially limited, the calculation agent's good faith estimate of the closing price that would have prevailed but for the suspension or limitation) at the close of the principal trading session on that date of each security most recently included in the Underlying Index or successor index, as applicable. Notwithstanding these alternative arrangements, discontinuation of the publication of the Underlying Index or successor index, as applicable, may adversely affect the value of the Notes.

If at any time the method of calculating an Underlying Index or a successor index, or the level thereof, is changed in a material respect, or if an Underlying Index or a successor index is in any other way modified so that the Underlying Index or successor index does not, in the opinion of the calculation agent, fairly represent the level of the Underlying Index or successor index had those changes or modifications not been made, then the calculation agent will, at the close of business in New York City on the date on any date on which the closing level of the Underlying Index is to be determined, make any calculations and adjustments as, in the good faith judgment of the calculation agent, may be necessary in order to arrive at a level of a stock index comparable to the Underlying Index or successor index, as the case may be, as if those changes or modifications had not been made, and calculate the closing level with reference to the Underlying Index or such successor index, as adjusted. Accordingly, if the method of calculating an Underlying Index or a successor index is modified so that the level of the Underlying Index or such successor index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the Underlying Index), then the calculation agent will adjust its calculation of the Underlying Index or such successor index in order to arrive at a level of the Underlying Index or such successor index as if there had been no such modification (*e.g.*, as if such split had not occurred).

Payment of Additional Amounts

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

However, no Additional Amounts will be payable with respect to a payment made to a holder of a Note or of a right to receive payments in respect thereto (a "Payment Recipient"), which we refer to as an "Excluded Holder," in respect of a beneficial owner or Payment Recipient:

(i) with whom we do not deal at arm's length (within the meaning of the Income Tax Act (Canada)) at the time of making such payment;

(ii) who is subject to such taxes by reason of the holder being connected presently or formerly with Canada or any province or territory thereof otherwise than by reason of the holder's activity in connection with purchasing the Notes, the holding of Notes or the receipt of payments thereunder;

(iii) who is, or who does not deal at arm's length with a person who is, a "specified shareholder" (within the meaning of subsection 18(5) of the Income Tax Act (Canada)) of Royal Bank of Canada (generally a person will be a "specified shareholder" for this purpose if that person, either alone or together with persons with whom the person does not deal at arm's length, owns 25% or more of (a) our voting shares, or (b) the fair market value of all of our issued and outstanding shares);

(iv) who presents such Note for payment (where presentation is required, such as if a Note is issued in definitive form) more than 30 days after the relevant date; for this purpose, the "relevant date" in relation to any payments on any Note means:

a. the due date for payment thereof (whether at maturity or upon an earlier acceleration), or

b. if the full amount of the monies payable on such date has not been received by the trustee on or prior to such due date, the date on which the full amount of such monies has been received and notice to that effect is given to holders of the Notes in accordance with the indenture;

(v) who could lawfully avoid (but has not so avoided) such withholding or deduction by complying, or procuring that any third party comply with, any statutory requirements necessary to establish qualification for an exemption from withholding or by making, or procuring that any third party make, a declaration of non-residence or other similar claim for exemption to any relevant tax authority; or

(vi) who is subject to deduction or withholding on account of any tax, assessment, or other governmental charge that is imposed or withheld by reason of the application of Section 1471 through 1474 of the United States Internal Revenue Code of 1986, as amended (the "Code") (or any successor provisions), any regulation, pronouncement, or agreement thereunder, official interpretations thereof, or any law implementing an intergovernmental approach thereto, whether currently in effect or as published and amended from time to time.

For the purposes of clause (iii) above, if a Note is presented for payment more than 30 days after the relevant date, we shall only be required to pay such Additional Amounts as shall have accrued as of such 30th day, and no further Additional Amounts shall accrue or become payable after such date.

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

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

For additional information, see the section entitled "Canadian Taxation" in the accompanying prospectus.

Events of Default

Under the heading "Description of Debt Securities—Events of Default" in the accompanying prospectus is a description of events of default relating to debt securities including the Notes.

Payment upon an Event of Default

If an event of default with respect to the Notes shall have occurred and be continuing, the amount declared due and payable per $10 in principal amount of the Notes upon any acceleration of the Notes will be determined by the calculation agent and will be an amount in cash equal to the amount payable at maturity per $10 in principal amount of the Notes as described above, calculated as if the date of acceleration were the Final Valuation Date. The calculation agent will also determine if the final Contingent Coupon is payable, calculated on a 30/360 day basis.

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

Defeasance

The provisions described in the accompanying prospectus under the heading "Description of Debt Securities—Defeasance" are not applicable to the Notes.

Registrar, Transfer Agent and Paying Agent

Payment of amounts due at maturity on the Notes will be payable and the transfer of the Notes will be registrable at the principal corporate trust office of The Bank of New York Mellon in The City of New York.

The Bank of New York Mellon or one of its affiliates will act as registrar and transfer agent for the Notes. The Bank of New York Mellon will also act as paying agent and may designate additional paying agents.

Registration of transfers of the Notes will be effected without charge by or on behalf of The Bank of New York Mellon, but upon payment (with the giving of such indemnity as The Bank of New York Mellon may require) in respect of any tax or other governmental charges that may be imposed in relation to it.

Governing Law

The Notes will be governed by and interpreted in accordance with the laws of the State of New York.

Supplemental Plan of Distribution (Conflicts of Interest)

We have agreed to indemnify UBS and RBCCM against liabilities under the Securities Act of 1933, as amended, or to contribute payments that UBS 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 may sell all or a part of the Notes that it will purchase from us to investors or its affiliates at the price indicated on the cover page of this pricing supplement.

UBS may allow a concession not in excess of the underwriting discount set forth on the cover of this pricing supplement to its affiliates for distribution of the Notes. UBS may allow a concession not in excess of the underwriting discount set forth on the cover of this pricing supplement to its affiliates for distribution of the Notes.

We expect to deliver the Notes on a date that is greater than two business days following the Trade Date. Under Rule 15c6-1 of the Exchange Act, 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 more than two business days prior to the original Issue Date will be required to specify alternative arrangements to prevent a failed settlement.

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" above.

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 6 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.

No action has been or will be taken by us, RBCCM, UBS or any other dealer that would permit a public offering of the Notes or possession or distribution of this document or the accompanying prospectus supplement and prospectus, other than in the United States, where action for that purpose is required. No offers, sales or deliveries of the Notes, or distribution of this document, or the accompanying prospectus supplement, prospectus or any other offering material relating to the Notes, may be made in or from any jurisdiction except in circumstances which will result in compliance with any applicable laws and regulations and will not impose any obligations on us, UBS or any dealer.

Each of RBCCM and UBS has represented and agreed, and each dealer through which we may offer the Notes has represented and agreed, that it (i) will comply with all applicable laws and regulations in force in each non-U.S. jurisdiction in which it purchases, offers, sells or delivers the Notes or possesses or distributes this document and the accompanying prospectus supplement and prospectus and (ii) will obtain any consent, approval or permission required by it for the purchase, offer or sale by it of the Notes under the laws and regulations in force in each non-U.S. jurisdiction to which it is subject or in which it makes purchases, offers or sales of the Notes. We shall not have responsibility for any broker-dealer's compliance with the applicable laws and regulations or obtaining any required consent, approval or permission.

Each of RBCCM, UBS and any other broker-dealer offering the Notes have not offered, sold or otherwise made available and will not offer, sell or otherwise make available any of the Notes to, any retail investor in the European Economic Area ("EEA") or in the United Kingdom. For these purposes, the expression "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes, and a "retail investor" means a person who is one (or more) of: (a) a retail client, as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); or (b) a customer, within the meaning of Directive (EU) 2016/97, as amended, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (c) not a qualified investor as defined in Regulation (EU) (2017/1129) (the "Prospectus Regulation"). Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the Notes or otherwise making them available to retail investors in the EEA or the United Kingdom has been prepared, and therefore, offering or selling the Notes or otherwise making them available to any retail investor in the EEA or the United Kingdom may be unlawful under the PRIIPs Regulation.

Structuring the Notes

The Notes are our debt securities, the return on which is linked to the performance of the Underlying Indices. 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 were set than if the secondary market rate has been used. Unlike the estimated value included on the cover page of this pricing supplement, 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 Underlying Indices, and the tenor of the Notes. The economic terms of the Notes and their initial estimated value depend in part on the terms of these hedging arrangements.

The lower implied borrowing rate is a factor that reduced the economic terms of the Notes to you. The initial offering price of the Notes also reflects our estimated hedging costs. These factors resulted in the initial estimated value for 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.

Employee Retirement Income Security Act

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

The Employee Retirement Income Security Act of 1974, as amended ("ERISA"), imposes certain requirements on "employee benefit plans" (as defined in Section 3(3) of ERISA) subject to ERISA, including entities such as collective investment funds and separate accounts whose underlying assets include the assets of such plans (collectively, "ERISA Plans") and on those persons who are fiduciaries with respect to ERISA Plans. Each fiduciary of an ERISA Plan should consider the fiduciary standards of ERISA in the context of the ERISA Plan's particular circumstances before authorizing an investment in the covered bonds. Accordingly, among other factors, the fiduciary should consider whether the investment would satisfy the prudence and diversification requirements of ERISA and would be consistent with the documents and instruments governing the ERISA Plan.

In addition, Section 406 of ERISA and Section 4975 of the Internal Revenue Code prohibit certain transactions involving the assets of an ERISA Plan, as well as those plans that are not subject to ERISA but which are subject to Section 4975 of the Internal Revenue Code, such as individual retirement accounts, including entities whose underlying assets include the assets of such plans (together with ERISA Plans, "Plans") and certain persons (referred to as "parties in interest" or "disqualified persons") having certain relationships to such Plans, unless a statutory or administrative exemption is applicable to the transaction. Governmental plans may be subject to similar prohibitions. Therefore, a plan fiduciary considering purchasing Notes should consider whether the purchase or holding of such instruments might constitute a "prohibited transaction."

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

If you are an insurance company or the fiduciary of a pension plan or an employee benefit plan, and propose to invest in the Notes, you should consult your legal counsel.

Terms Incorporated in Master Note

The terms appearing above under the captions "Final Terms of the Notes" and "General Terms of the Notes" are incorporated into the master note issued to DTC, the registered holder of the Notes.

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.