

Pricing Supplement

Dated September 29, 2022

To the Product Prospectus Supplement No. CCBN-2, the Prospectus Supplement and the Prospectus, Each Dated September 14, 2021

\$2,050,000

Auto-Callable Contingent Coupon Barrier Notes Linked to the S&P 500[®] Index, Due October 2, 2025 Royal Bank of Canada

Royal Bank of Canada is offering Auto-Callable Contingent Coupon Barrier Notes (the "Notes") linked to the S&P 500® Index (the "Reference Index"). The Notes are our senior unsecured obligations, will pay a quarterly Contingent Coupon at the rate and under the circumstances specified below, and will have the terms described in the documents described above, as supplemented or modified by this pricing supplement.

Reference Index	Initial Level	Coupon Barrier and Trigger Level
S&P 500® Index ("SPX")	3,640.47	2,366.31, which is 65% of the Initial Level (rounded to two decimal places)

The Notes do not guarantee any return of principal at maturity. Any payments on the Notes are subject to our credit risk.

Investing in the Notes involves a number of risks. See "Selected Risk Considerations" beginning on page P-8 of this pricing supplement, and "Risk Factors" beginning on page PS-3 of the product prospectus supplement dated September 14, 2021 and page S-2 of the prospectus supplement dated September 14, 2021.

The Notes will not constitute deposits insured by the Canada Deposit Insurance Corporation, the U.S. Federal Deposit Insurance Corporation or any other Canadian or U.S. government agency or instrumentality. The Notes are not subject to conversion into our common shares under subsection 39.2(2.3) of the Canada Deposit Insurance Corporation Act.

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

 Issuer:
 Royal Bank of Canada
 Stock Exchange Listing:
 None

Trade Date:September 29, 2022Principal Amount:\$1,000 per NoteIssue Date:October 4, 2022Maturity Date:October 2, 2025

Observation Dates: Quarterly, as set forth below. Coupon Payment Dates: Quarterly, as set forth below.

Valuation Date: September 29, 2025 Contingent Coupon Rate: 9.65% per annum

Initial Level: The closing level of the Reference Index on the Trade Date, as set forth in the table above.

Final Level: The closing level of the Reference Index on the Valuation Date.

Contingent Coupon: If the closing level of the Reference Index is greater than or equal to the Coupon Barrier on the applicable Observation

Date, we will pay the Contingent Coupon on the applicable Coupon Payment Date. You may not receive any

Contingent Coupons during the term of the Notes.

Payment at Maturity (if

held to maturity):

If the Notes are not previously called, we will pay you at maturity an amount based on the Final Level:

For each \$1,000 in principal amount, \$1,000 plus the Contingent Coupon at maturity, unless the Final Level is less

than the Trigger Level.

If the Final Level is less than the Trigger Level, then the investor will receive at maturity, for each \$1,000 in principal

amount, a cash payment equal to:

\$1,000 + (\$1,000 x Underlying Return)

Investors could lose some or all of the principal amount if the Final Level is less than the Trigger Level.

Automatic Call Feature: If the closing level of the Reference Index is greater than or equal to the Initial Level, beginning in September 2023

and on any quarterly Observation Date thereafter, the Notes will be automatically called for 100% of their principal

amount, plus the Contingent Coupon applicable to the corresponding Observation Date.

Observation Dates: Quarterly, as set forth below.

CUSIP: 78016FVY7

 Per Note
 Total

 Price to public⁽¹⁾
 100.00%
 \$2,050,000

 Underwriting discounts and commissions ⁽¹⁾
 0.50%
 \$10,250

 Proceeds to Royal Bank of Canada
 99.50%
 \$2,039,750

(1) Certain dealers who purchase the Notes for sale to certain fee-based advisory accounts may forego some or all of their underwriting discount or selling concessions. The public offering price for investors purchasing the Notes in these accounts may be between \$995 and \$1,000 per \$1,000 in principal amount. RBC Capital Markets, LLC ("RBCCM"), acting as our agent, will receive a commission of \$5.00 per \$1,000 in principal amount of the Notes and will use a portion of that commission to allow selling concessions to other dealers of up to \$5.00 per \$1,000 in principal amount of the Notes. The other dealers may forgo, in their sole discretion, some or all of their selling concessions. See "Supplemental Plan of Distribution (Conflicts of Interest)" below.

The initial estimated value of the Notes as of the Trade Date was \$981.15 per \$1,000 in principal amount, which is less than the price to public. The actual value of the Notes at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount. We describe our determination of the initial estimated value in more detail below.

SUMMARY

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

General: This pricing supplement relates to an offering of Auto-Callable Contingent Coupon Barrier Notes (the

"Notes") linked to the S&P 500® Index (the "Reference Index").

Issuer: Royal Bank of Canada ("Royal Bank")

Trade Date: September 29, 2022
Issue Date: October 4, 2022
Valuation Date: September 29, 2025
Maturity Date: October 2, 2025

Denominations: Minimum denomination of \$1,000, and integral multiples of \$1,000 thereafter.

Contingent Coupon: We will pay you a Contingent Coupon during the term of the Notes, periodically in arrears on each

Coupon Payment Date, under the conditions described below:

 If the closing level of the Reference Index is greater than or equal to the Coupon Barrier on the applicable Observation Date, we will pay the Contingent Coupon applicable to that Observation Date.

 If the closing level of the Reference Index is less than the Coupon Barrier on the applicable Observation Date, we will not pay you the Contingent Coupon applicable to that Observation Date.

You may not receive a Contingent Coupon for one or more quarterly periods during the term of the

Contingent Coupon Rate:

9.65% per annum (2.4125% per quarter)

Observation Dates and Coupon Payment

Dates:

Quarterly, as set forth in the table below:

Observation Dates	Coupon Payment Dates	
December 29, 2022	January 4, 2023	
March 29, 2023	April 3, 2023	
June 29, 2023	July 5, 2023	
September 29, 2023	October 4, 2023	
December 29, 2023	January 4, 2024	
March 28, 2024	April 3, 2024	
June 28, 2024	July 3, 2024	
September 30, 2024	October 3, 2024	
December 30, 2024	January 3, 2025	
March 31, 2025	April 3, 2025	
June 30, 2025	July 3, 2025	
September 29, 2025 (the Valuation Date)	October 2, 2025 (the Maturity Date)	

Record Dates:

The record date for each Coupon Payment Date will be one business day prior to that scheduled Coupon Payment Date; provided, however, that any Contingent Coupon payable at maturity or upon

a call will be payable to the person to whom the payment at maturity or upon the call, as the case

may be, will be payable.

Automatic Call Feature:

If, starting on September 29, 2023 and on any Observation Date thereafter, the closing level of the Reference Index is greater than or equal to the Initial Level, then the Notes will be automatically

Payment if Called:

If the Notes are automatically called, then, on the applicable Coupon Payment Date, for each \$1,000 principal amount, you will receive \$1,000 plus the Contingent Coupon otherwise due on that Coupon Payment Date.

Initial Level:

The closing level of the Reference Index on the Trade Date, as set forth on the cover page of this pricing supplement.

Final Level:

The closing level of the Reference Index on the Valuation Date.

Coupon Barrier and Trigger Level:

65% of the Initial Level, as set forth on the cover page of this pricing supplement.

Payment at Maturity (if not previously called and held to maturity):

If the Notes are not previously called, we will pay you at maturity an amount based on the Final Level:

- If the Final Level is greater than or equal to the Trigger Level, we will pay you a cash payment equal to the principal amount plus the Contingent Coupon otherwise due on the Maturity Date.
- If the Final Level is less than the Trigger Level, you will receive at maturity, for each \$1,000 in principal amount, a cash payment equal to: \$1,000 + (\$1,000 x Underlying Return)

The amount of cash that you receive will be less than your principal amount, if anything, resulting in a loss that is proportionate to the decline of the Reference Index from the Trade Date to the Valuation Date. *Investors in the Notes could lose some or all of the principal amount if the Final Level is less than the Trigger Level.*

Underlying Return:

Final Level – Initial Level Initial Level

Calculation Agent:

RBC Capital Markets, LLC ("RBCCM")

U.S. Tax Treatment:

By purchasing a Note, each holder agrees (in the absence of a change in law, an administrative determination or a judicial ruling to the contrary) to treat the Note as a callable pre-paid cash-settled contingent income-bearing derivative contract linked to the Reference Index for U.S. federal income tax purposes. However, the U.S. federal income tax consequences of your investment in the Notes are uncertain and the Internal Revenue Service could assert that the Notes should be taxed in a manner that is different from that described in the preceding sentence. Please see the section below, "Supplemental Discussion of U.S. Federal Income Tax Consequences" and the discussion (including the opinion of Ashurst LLP, our special U.S. tax counsel) in the product prospectus supplement under "Supplemental Discussion of U.S. Federal Income Tax Consequences," which apply to the Notes.

Secondary Market:

RBCCM (or one of its affiliates), though not obligated to do so, may maintain a secondary market in the Notes after the issue date. The amount that you may receive upon sale of your Notes prior to maturity may be less than the principal amount.

Listing:

The Notes will not be listed on any securities exchange.

Auto-Callable Contingent Coupon Barrier Notes Linked to the S&P 500® Index

Royal Bank of Canada

Settlement: DTC global (including through its indirect participants Euroclear and Clearstream, Luxembourg as

described under "Ownership and Book-Entry Issuance" in the prospectus).

Terms Incorporated in the Master Note:

All of the terms appearing on the cover page and above the item captioned "Secondary Market" on pages P-2 and P-3 of this pricing supplement and the terms appearing under the caption "General"

Terms of the Notes" in the product prospectus supplement, as modified by this pricing supplement.

ADDITIONAL TERMS OF YOUR NOTES

You should read this pricing supplement together with the prospectus dated September 14, 2021, as supplemented by the prospectus supplement dated September 14, 2021 and the product prospectus supplement dated September 14, 2021, relating to our Senior Global Medium-Term Notes, Series I, of which these Notes are a part. Capitalized terms used but not defined in this pricing supplement will have the meanings given to them in the product prospectus supplement. In the event of any conflict, this pricing supplement will control. The Notes vary from the terms described in the product prospectus supplement in several important ways. You should read this pricing supplement carefully.

This pricing supplement, together with the documents listed below, contains the terms of the Notes and supersedes all prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in "Risk Factors" in the prospectus supplement dated September 14, 2021 and in the product prospectus supplement dated September 14, 2021, as the Notes involve risks not associated with conventional debt securities. We urge you to consult your investment, legal, tax, accounting and other advisors before you invest in the Notes. You may access these documents on the Securities and Exchange Commission (the "SEC") website at www.sec.gov as follows (or if that address has changed, by reviewing our filings for the relevant date on the SEC website):

Prospectus dated September 14, 2021:

https://www.sec.gov/Archives/edgar/data/1000275/000121465921009470/rbc911212424b3.htm

Prospectus Supplement dated September 14, 2021:

https://www.sec.gov/Archives/edgar/data/1000275/000121465921009472/rbcsupp911210424b3.htm

Product Prospectus Supplement dated September 14, 2021:

https://www.sec.gov/Archives/edgar/data/1000275/000114036121031252/brhc10028905 424b5.htm

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

HYPOTHETICAL EXAMPLES

The table set out below is included for illustration purposes only. The table illustrates the Payment at Maturity of the Notes (including the final Contingent Coupon, if payable) for a hypothetical range of performance for the Reference Index, assuming the following terms and that the Notes are not automatically called prior to maturity:

Hypothetical Initial Level:	100.00*	
Hypothetical Coupon Barrier and Trigger Level:	65, which is 65% of the hypothetical Initial Level	
Contingent Coupon Rate:	9.65% per annum (or 2.4125% per quarter)	
Contingent Coupon Amount:	\$24.125 per quarter	
Observation Dates:	Quarterly	
Principal Amount:	\$1,000 per Note	

^{*} The hypothetical Initial Level of 100.00 used in the examples below has been chosen for illustrative purposes only and is not the actual Initial Level. The actual Initial Level is set forth on the cover page of this pricing supplement. *We make no representation or warranty as to the Final Level.*

Hypothetical Final Levels are shown in the first column on the left. The second column shows the Payment at Maturity for a range of Final Levels. The third column shows the amount of cash to be paid on the Notes per \$1,000 in principal amount. If the Notes are called prior to maturity, the hypothetical examples below will not be relevant, and you will receive on the applicable Coupon Payment Date, for each \$1,000 principal amount, \$1,000 plus the Contingent Coupon otherwise due on the Notes.

Hypothetical Final Level	Payment at Maturity as Percentage of Principal Amount	Cash Payment Amount per \$1,000 in Principal Amount
130.00	102.4125%*	\$1,024.125*
120.00	102.4125%*	\$1,024.125*
110.00	102.4125%*	\$1,024.125*
100.00	102.4125%*	\$1,024.125*
90.00	102.4125%*	\$1,024.125*
80.00	102.4125%*	\$1,024.125*
70.00	102.4125%*	\$1,024.125*
65.00	102.4125%*	\$1,024.125*
64.99	64.99%	\$649.90
60.00	60.00%	\$600.00
50.00	50.00%	\$500.00
40.00	40.00%	\$400.00
30.00	30.00%	\$300.00
20.00	20.00%	\$200.00
10.00	10.00%	\$100.00
0.00	0.00%	\$0.00

^{*} Including the final Contingent Coupon, if payable.

Hypothetical Examples of Amounts Payable at Maturity

The following hypothetical examples illustrate how the payments at maturity set forth in the table above are calculated, assuming the Notes have not been called.

Example 1: The level of the Reference Index increases by 25% from the Initial Level to a Final Level of 125.00.Because the Final Level is greater than the Trigger Level and Coupon Barrier, the investor receives at maturity, in addition to the final Contingent Coupon otherwise due on the Notes, a cash payment of \$1,000 per Note, despite the 25% appreciation in the level of the Reference Index.

Example 2: The level of the Reference Index decreases by 10% from the Initial Level to a Final Level of 90.00. Because the Final Level is greater than the Trigger Level and Coupon Barrier, the investor receives at maturity, in addition to the final Contingent Coupon otherwise due on the Notes, a cash payment of \$1,000 per Note, despite the 10% decline in the level of the Reference Index.

Example 3: The level of the Reference Index decreases by 50% from the Initial Level to a Final Level of 50.00.Because the Final Level is less than the Trigger Level and Coupon Barrier, the final Contingent Coupon will not be payable on the Maturity Date, and we will pay only \$500 for each \$1,000 in the principal amount of the Notes, calculated as follows:

Principal Amount + (Principal Amount x Underlying Return) = $$1,000 + ($1,000 \times -50\%) = $1,000 - $500 = 500

The Payments at Maturity shown above are entirely hypothetical; they are based on levels of the Reference Index that may not be achieved on the Valuation Date and on assumptions that may prove to be erroneous. The actual market value of your Notes on the Maturity Date or at any other time, including any time you may wish to sell your Notes, may bear little relation to the hypothetical Payments at Maturity shown above, and those amounts should not be viewed as an indication of the financial return on an investment in the Notes or on an investment in the securities included in the Reference Index.

SELECTED RISK CONSIDERATIONS

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the Reference Index. These risks are explained in more detail in the section "Risk Factors," in the product prospectus supplement. In addition to the risks described in the prospectus supplement and the product prospectus supplement, you should consider the following:

Risks Relating to the Terms of the Notes

- You May Receive Less than the Principal Amount at Maturity Investors in the Notes could lose all or a substantial portion of their principal amount if there is a decline in the level of the Reference Index between the Trade Date and the Valuation Date. If the Notes are not automatically called and the Final Level is less than the Trigger Level, the amount of cash that you receive at maturity will represent a loss of your principal that is proportionate to the decline in the closing level of the Reference Index from the Trade Date to the Valuation Date. Any Contingent Coupons received on the Notes prior to the Maturity Date may not be sufficient to compensate for any such loss.
- The Notes Are Subject to an Automatic Call If on any Observation Date, beginning in September 2023, the closing level of the Reference Index is greater than or equal to the Initial Level, then the Notes will be automatically called. If the Notes are automatically called, then, on the applicable Coupon Payment Date, for each \$1,000 in principal amount, you will receive \$1,000 plus the Contingent Coupon otherwise due on the applicable Coupon Payment Date. You will not receive any Contingent Coupons after that payment. You may be unable to reinvest your proceeds from the automatic call in an investment with a return that is as high as the return on the Notes would have been if they had not been called.
- You May Not Receive Any Contingent Coupons We will not necessarily make any coupon payments on the Notes. If the closing level of the Reference Index on an Observation Date is less than the Coupon Barrier, we will not pay you the Contingent Coupon applicable to that Observation Date. If the closing level of the Reference Index is less than the Coupon Barrier on each of the Observation Dates and on the Valuation Date, 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 will coincide with a period of greater risk of principal loss on your Notes. If we do not pay the Contingent Coupon on the Maturity Date, you will also incur a loss of principal, because the Final Level will be less than the Trigger Level.
- 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 Reference Index. In addition, the total return on the Notes will vary based on the number of 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 Call Feature, you will not receive any Contingent Coupons or any other payment in respect of any Observation Dates after the applicable Coupon Payment Date. Since the Notes could be called as early as September 2023, the return on the Notes could be limited to one year of Contingent Coupon payments, none of which are guaranteed. If the Notes are not called, you may be subject to the full downside performance of the Reference Index even though your potential return is limited to the Contingent Coupon Rate. As a result, the return on an investment in the Notes could be less than the return on a direct investment in securities included in the Reference Index.
- 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. Even if your return is positive, your return may be less than the return you would earn if you purchased one of our conventional senior interest bearing debt securities.
- Owning the Notes Is Not the Same as Owning the Securities Represented by the Reference Index The return on your Notes is unlikely to reflect the return you would realize if you actually owned the securities represented by the Reference Index. For instance, you will not receive or be entitled to receive any dividend payments or other distributions on those securities during the term of your Notes. As an owner of the Notes, you

will not have voting rights or any other rights that holders of the securities represented by the Reference Index may have. Furthermore, the Reference Index may appreciate substantially during the term of the Notes, while your potential return will be limited to the applicable Contingent Coupon payments.

Payments on the Notes Are Subject to Our Credit Risk, and Changes in Our Credit Ratings Are Expected
to Affect the Market Value of the Notes — The Notes are our senior unsecured debt securities. As a result,
your receipt of any Contingent Coupons, if payable, and the amount due on any relevant payment date is
dependent upon our ability to repay our obligations on the applicable payment dates. This will be the case even if
the level of the Reference Index increases after the Trade Date. No assurance can be given as to what our
financial condition will be at any time during the term of the Notes.

Risks Relating to the Secondary Market for the Notes

• There May Not Be an Active Trading Market for the Notes-Sales in the Secondary Market May Result in Significant Losses — There may be little or no secondary market for the Notes. The Notes will not be listed on any securities exchange. RBCCM and our other affiliates may make a market for the Notes; however, they are not required to do so. RBCCM or any of our other affiliates may stop any market-making activities at any time. Even if a secondary market for the Notes develops, it may not provide significant liquidity or trade at prices advantageous to you. We expect that transaction costs in any secondary market would be high. As a result, the difference between bid and asked prices for your Notes in any secondary market could be substantial.

Risks Relating to the Initial Estimated Value of the Notes

- The Initial Estimated Value of the Notes Is Less than the Price to the Public The initial estimated value that is set forth on the cover page of this pricing supplement does not represent a minimum price at which we. RBCCM or any of our affiliates would be willing to purchase the Notes in any secondary market (if any exists) at any time. If you attempt to sell the Notes prior to maturity, their market value may be lower than the price you paid for them and the initial estimated value. This is due to, among other things, changes in the level of the Reference Index, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to the public of the underwriting discount and the estimated costs relating to our hedging of the Notes. These factors, together with various credit, market and economic factors over the term of the Notes, are expected to reduce the price at which you may be able to sell the Notes in any secondary market and will affect the value of the Notes in complex and unpredictable ways. Assuming no change in market conditions or any other relevant factors, the price, if any, at which you may be able to sell your Notes prior to maturity may be less than your original purchase price, as any such sale price would not be expected to include the underwriting discount or our hedging costs relating to the Notes. In addition to bid-ask spreads, the value of the Notes determined by RBCCM for any secondary market price is expected to be based on the secondary rate rather than the internal funding rate used to price the Notes and determine the initial estimated value. As a result, the secondary price will be less than if the internal funding rate was used. The Notes are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Notes to maturity.
- The Initial Estimated Value of the Notes that Is Set Forth on the Cover Page of This Pricing Supplement 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 midmarket 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.

Risks Relating to Conflicts of Interest and Our Trading Activities

- Our Business Activities May Create Conflicts of Interest We and our affiliates expect to engage in trading activities related to the Reference Index that are not for the account of holders of the Notes or on their behalf. These trading activities may present a conflict between the holders' interests in the Notes and the interests we and our affiliates will have in their proprietary accounts, in facilitating transactions, including options and other derivatives transactions, for their customers and in accounts under their management. These trading activities, if they influence the level of the Reference Index, could be adverse to the interests of the holders of the Notes. We and one or more of our affiliates may, at present or in the future, engage in business with companies included in the Reference Index, including making loans to or providing advisory services. These services could include investment banking and merger and acquisition advisory services. These activities may present a conflict between our or one or more of our affiliates' obligations and your interests as a holder of the Notes. Moreover, we and our affiliates may have published, and in the future expect to publish, research reports with respect to the Reference Index. This research is modified from time to time without notice and may express opinions or provide recommendations that are inconsistent with purchasing or holding the Notes. Any of these activities by us or one or more of our affiliates may affect the level of the Reference Index, and, therefore, the market value of the Notes.
- We May Issue Research that Is Inconsistent with an Investment in the Notes We or our affiliates may issue research reports on securities that are, or may become, components of the Reference Index. We may also publish research from time to time on financial markets and other matters that may influence the level of the Reference Index or the value of the Notes, or express opinions or provide recommendations that may be inconsistent with purchasing or holding the Notes or with the investment view implicit in the Notes or the Reference Index. You should make your own independent investigation of the merits of investing in the Notes and the Reference Index.

Risks Relating to the Reference Index

- Owning the Notes Is Not the Same as Owning the Securities Represented by the Reference Index The return on your Notes is unlikely to reflect the return you would realize if you actually owned the securities represented by the Reference Index. For instance, you will not receive or be entitled to receive any dividend payments or other distributions on those securities during the term of your Notes. As an owner of the Notes, you will not have voting rights or any other rights that holders of the securities included in the Reference Index may have. Furthermore, the Reference Index may appreciate substantially during the term of the Notes, while your potential return will be limited to the applicable Contingent Coupon payments.
- The Payments on the Notes Are Subject to Market Disruption Events and Adjustments The payment at maturity, each Observation Date and the Valuation Date are subject to adjustment as described in the product prospectus supplement. For a description of what constitutes a market disruption event as well as the consequences of that market disruption event, see "General Terms of the Notes—Market Disruption Events" in the product prospectus supplement.

INFORMATION REGARDING THE REFERENCE INDEX

All disclosures contained in this document regarding the Reference Index, including, without limitation, its make-up, method of calculation, and changes in its components, have been derived from publicly available sources. The information reflects the policies of, and is subject to change by, the applicable index sponsor. The index sponsor has no obligation to continue to publish, and may discontinue publication of, the Reference Index. The consequences of the index sponsor discontinuing publication of the Reference Index are discussed in the section of the product prospectus supplement entitled "General Terms of the Notes—Unavailability of the Level of a Reference Index." Neither we nor RBCCM accepts any responsibility for the calculation, maintenance or publication of the Reference Index or any successor index.

S&P 500[®] Index ("SPX")

The SPX is intended to provide an indication of the pattern of price movements among large capitalization U.S. stocks. 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.

S&P 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.

Effective with the September 2015 rebalance, consolidated share class lines will no longer be included in the SPX. Each share class line will be subject to public float and liquidity criteria individually, but the company's total market capitalization will be used to evaluate each share class line. This may result in one listed share class line of a company being included in the SPX while a second listed share class line of the same company is excluded.

Computation of the SPX

While S&P currently employs the following methodology to calculate the SPX, no assurance can be given that S&P will not modify or change this methodology in a manner that may affect the payments on the Notes.

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, S&P 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. S&P'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, 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, S&P 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, S&P 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 Reference Index. Constituents of the Reference Index prior to July 31, 2017 with multiple share class lines were grandfathered in and continue to be included in the Reference Index. If a constituent company of the Reference Index reorganizes into a multiple share class line structure, that company will remain in the Reference Index 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 use 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 SPX closing level.

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 PARTICULAR PURPOSE OR USE OR AS TO RESULTS TO BE OBTAINED BY US, HOLDERS OF THE NOTES, OR ANY OTHER PERSON OR ENTITY FROM THE USE OF THE SPX OR WITH RESPECT TO ANY DATA RELATED THERETO. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT WHATSOEVER SHALL S&P DOW JONES INDICES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, TRADING LOSSES, LOST TIME OR GOODWILL, EVEN IF THEY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE. THERE ARE NO THIRD PARTY BENEFICIARIES OF ANY AGREEMENTS OR ARRANGEMENTS BETWEEN S&P DOW JONES INDICES AND US, OTHER THAN THE LICENSORS OF S&P DOW JONES INDICES.

HISTORICAL INFORMATION

We obtained the information regarding the historical performance of the Reference Index in the graph below from Bloomberg Financial Markets.

We have not independently investigated the accuracy or completeness of the information obtained from Bloomberg Financial Markets. The historical performance of the Reference Index should not be taken as an indication of its future performance, and no assurance can be given as to the Final Level of the Reference Index. We cannot give you assurance that the performance of the Reference Index will not result in the loss of all or a portion of your investment in the Notes.

Historical Information for S&P 500® Index ("SPX")

The graph below illustrates the performance of the Reference Index from January 1, 2012 to September 29, 2022. The closing level of the Reference Index on September 29, 2022, the Initial Level, was 3,640.47. The red horizontal line represents the Coupon Barrier and Trigger Level of 2,366.31, which is equal to 65% of its Initial Level (rounded to two decimal places).



SUPPLEMENTAL DISCUSSION OF U.S. FEDERAL INCOME TAX CONSEQUENCES

The following disclosure supplements, and to the extent inconsistent supersedes, the discussion in the product prospectus supplement under "Supplemental Discussion of U.S. Federal Income Tax Consequences."

Under Section 871(m) of the Code, a "dividend equivalent" payment is treated as a dividend from sources within the United States. Such payments generally would be subject to a 30% U.S. withholding tax if paid to a non-U.S. holder. Under U.S. Treasury Department regulations, payments (including deemed payments) with respect to equity-linked instruments ("ELIs") that are "specified ELIs" may be treated as dividend equivalents if such specified ELIs reference, directly or indirectly, 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, 2025. Based on our determination that the Notes are not delta-one instruments, non-U.S. holders should not be subject to withholding on dividend equivalent payments, if any, under the Notes. However, it is possible that the Notes could be treated as deemed reissued for U.S. federal income tax purposes upon the occurrence of certain events affecting the Reference Index or the Notes (for example, upon the Reference 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 Reference Index or the Notes should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the Notes and their other transactions. If any payments are treated as dividend equivalents subject to withholding, we (or the applicable withholding agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

SUPPLEMENTAL PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

Delivery of the Notes will be made against payment for the Notes on October 4, 2022, which is the third (3rd) business day following the Trade Date (this settlement cycle being referred to as "T+3"). See "Plan of Distribution" in the prospectus. For additional information as to the relationship between us and RBCCM, please see the section "Plan of Distribution—Conflicts of Interest" in the prospectus.

We will 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 settlement arrangements to prevent a failed settlement.

In the initial offering of the Notes, they will be offered to investors at a purchase price equal to par, except with respect to certain accounts as indicated on the cover page of this document. In addition to the underwriting discount set forth on the cover page, we or one of our affiliates may also pay an expected fee to a broker-dealer that is unaffiliated with us for providing certain electronic platform services with respect to this offering.

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 or 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. This excess is expected to decrease over time until the end of this period. After this period, if RBCCM repurchases your Notes, it expects to do so at prices that reflect their estimated value.

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

STRUCTURING THE NOTES

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

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

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

VALIDITY OF THE NOTES

In the opinion of Norton Rose Fulbright Canada LLP, the issue and sale of the Notes has been duly authorized by all necessary corporate action of the Bank in conformity with the Indenture, and when the Notes have been duly executed, authenticated and issued in accordance with the Indenture and delivered against payment therefor, the Notes will be validly issued and, to the extent validity of the Notes is a matter governed by the laws of the Province of Ontario or Québec, or the laws of Canada applicable therein, 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 14, 2021, which has been filed as Exhibit 5.3 to the Bank's Form 6-K filed with the SEC on September 14, 2021.

In the opinion of Ashurst 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 the Bank, entitled to the benefits of the Indenture, subject to applicable bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights and subject to general principles of equity, public policy considerations and the discretion of the court before which any suit or proceeding may be brought. 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 14, 2021, which has been filed as Exhibit 5.4 to the Bank's Form 6-K dated September 14, 2021.