



Pricing Supplement

Dated December 14, 2022

To the Product Prospectus Supplement, the Prospectus Supplement and the Prospectus, Each Dated September 14, 2021

\$1,001,000

Barrier Income Notes Linked to the Lesser Performing of an Equity Index and an Equity Security, Due December 17, 2024

Royal Bank of Canada

Royal Bank of Canada is offering Barrier Income Notes (the "Notes") linked to the lesser performing of an equity index and an equity security (each, a "Reference Asset," and collectively, the "Reference Assets"). The Notes are our senior unsecured obligations, will pay a monthly coupon at the interest rate specified below, and will have the terms described in the documents set forth above, as supplemented or modified by this pricing supplement.

Reference Assets	Initial Levels	Barrier Levels
Dow Jones Industrial Average™ ("INDU")	34,005.04	17,002.52, which is 50% of its Initial Level
Walgreens Boots Alliance, Inc. ("WBA")	\$41.06	\$20.53, which is 50% of its Initial Level

The Notes do not guarantee any return of principal at maturity. All 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, "Additional Risk Factors Specific to Your Notes" beginning on page PS-3 of the product prospectus supplement dated September 14, 2021, and "Risk Factors" beginning on 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:	December 14, 2022	Principal Amount:	\$1,000 per Note
Issue Date:	December 19, 2022	Maturity Date:	December 17, 2024
Initial Level:	For each Reference Asset, its closing level or closing price, as applicable, on December 12, 2022 (the "Strike Date"), as set forth in the table above.	Final Level:	For each Reference Asset, its closing level or closing price, as applicable, on the Valuation Date.
Coupon Payments:	The Coupon Payments will be paid in equal monthly payments, at the rate of 9.25% per annum.		
Payment at Maturity (if held to maturity):	We will pay you at maturity an amount based on the Final Level of the Lesser Performing Reference Asset: For each \$1,000 in principal amount, \$1,000 plus the final Coupon Payment, unless the Final Level of either Reference Asset is less than its Barrier Level. If the Final Level of either Reference Asset is less than its Barrier Level, then the investor will receive at maturity, for each \$1,000 in principal amount, in addition to the final Coupon Payment, a cash payment equal to: $\$1,000 + (\$1,000 \times \text{Percentage Change of the Lesser Performing Reference Asset})$ Investors could lose some or all of the principal amount at maturity if the Final Level of either Reference Asset is less than its Barrier Level.		
Lesser Performing Reference Asset:	The Reference Asset with the lowest Percentage Change.		
CUSIP:	78016HGG9		

	Per Note	Total
Price to public ⁽¹⁾	100.00%	\$1,001,000
Underwriting discounts and commissions ⁽¹⁾	0.40%	\$4,004
Proceeds to Royal Bank of Canada	99.60%	\$996,996

⁽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 \$996.00 and \$1,000 per \$1,000 in principal amount.

RBC Capital Markets, LLC ("RBCCM"), acting as our agent, will receive a commission of \$4.00 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 \$4.00 per \$1,000 in principal amount of the Notes. The other dealers may forego, 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 \$996.07 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 Barrier Income Notes (the “Notes”) linked to the lesser performing of an equity index and an equity security set forth below.
Reference Assets:	The Dow Jones Industrial Average™ (“INDU”) and the common stock of Walgreens Boots Alliance, Inc. (“WBA”)
Issuer:	Royal Bank of Canada (“Royal Bank”)
Strike Date:	December 14, 2022
Trade Date:	December 14, 2022
Issue Date:	December 19, 2022
Valuation Date:	December 12, 2024
Maturity Date:	December 17, 2024
Denominations:	Minimum denomination of \$1,000, and integral multiples of \$1,000 thereafter.
Coupon Rate:	9.25% per annum. The Coupon Payments will be paid in equal monthly installments of \$7.708 per \$1,000 of the principal amount on the applicable Coupon Payment 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 the Coupon Payment at maturity will be payable to the person to whom the payment at maturity is payable.
Coupon Payment Dates:	Monthly, as follows (subject to postponement as set forth in the product supplement):

January 18, 2023
February 16, 2023
March 16, 2023
April 17, 2023
May 17, 2023
June 15, 2023
July 17, 2023
August 17, 2023
September 15, 2023
October 17, 2023
November 16, 2023
December 15, 2023
January 18, 2024
February 15, 2024
March 15, 2024
April 17, 2024

May 16, 2024
June 17, 2024
July 17, 2024
August 15, 2024
September 17, 2024
October 18, 2024
November 15, 2024
December 17, 2024 (the Maturity Date)

Percentage Change:	With respect to each Reference Asset: $\frac{\text{Final Level} - \text{Initial Level}}{\text{Initial Level}}$
Lesser Performing Reference Asset:	The Reference Asset which has the lowest Percentage Change.
Initial Level:	For each Reference Asset, its closing level (as to the INDU) or closing price (as to WBA) on the Strike Date, as set forth on the cover page of this document.
Barrier Level:	For each Reference Asset, 50% of its Initial Level, as set forth on the cover page of this document.
Final Level:	For each Reference Asset, its closing level (as to the INDU) or closing price (as to WBA) on the Valuation Date.
Payment at Maturity (if the Notes are held to maturity):	<p>We will pay you at maturity an amount based on the Final Level of the Lesser Performing Reference Asset:</p> <ul style="list-style-type: none"> If the Final Level of the Lesser Performing Reference Asset is greater than or equal to its Barrier Level, we will pay you a cash payment equal to the principal amount plus the Coupon Payment otherwise due on the Maturity Date. If the Final Level of the Lesser Performing Reference Asset is less than its Barrier Level, you will receive at maturity, for each \$1,000 in principal amount, in addition to the Coupon Payment due at maturity, a cash payment equal to: $1,000 + (\\$1,000 \times \text{Percentage Change of the Lesser Performing Reference Asset})$ <p>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 Lesser Performing Reference Asset from the Strike Date to the Valuation Date. <i>Investors in the Notes could lose some or all of their principal amount at maturity if the Final Level of the Lesser Performing Reference Asset is less than its Barrier Level.</i></p>
Stock Settlement:	Not applicable. Payments on the Notes will be made solely in cash.
Monitoring Period:	The Valuation Date. The closing levels or closing prices of the Reference Assets between the Strike Date and the Valuation Date will not impact the Payment at Maturity.
Monitoring Method:	Close of Trading Day
Early Redemption:	The Notes are not subject to early redemption at our option, or to an automatic redemption, prior to maturity.

Market Disruption Events:	The occurrence of a market disruption event (or a non-trading day) as to either of the Reference Assets will result in the postponement of the Valuation Date as to that Reference Asset, as described in the product prospectus supplement, but not to a non-affected Reference Asset.
Calculation Agent:	RBC Capital Markets, LLC ("RBCCM")
U.S. Tax Treatment:	<p>By purchasing a Note, each holder agrees (in the absence of a change in law, an administrative determination or a judicial ruling to the contrary) to treat the Notes as an investment unit consisting of (i) a non-contingent debt instrument issued by us to you and (ii) a put option with respect to the Reference Assets written by you and purchased by us.</p> <p>However, the U.S. federal income tax consequences of your investment in the Notes are uncertain and the Internal Revenue Service could assert that the Notes should be taxed in a manner that is different from that described in the preceding sentence. Please see the section below, "Supplemental Discussion of U.S. Federal Income Tax Consequences," and the discussion (including the opinion of our special U.S. tax counsel, Ashurst LLP) in the product prospectus supplement dated September 14, 2021 under "Supplemental Discussion of U.S. Federal Income Tax Consequences," which apply to the Notes.</p>
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:	None. The Notes will not be listed on any securities exchange.
Settlement:	DTC global (including through its indirect participants Euroclear and Clearstream, Luxembourg as described under "Ownership and Book-Entry Issuance" in the prospectus dated September 14, 2021).
Terms Incorporated in the Master Note:	All of the terms appearing on the cover page and on pages P-2 and P-3 of this pricing supplement above the items captioned "Secondary Market," the section below "Additional Terms Relating to the Index," and the applicable 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 “Additional Risk Factors Specific to Your Notes” 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/1000275/000114036121031253/brhc10028906_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 OF AMOUNTS PAYABLE AT MATURITY

The examples set forth below are provided for illustration purposes only. The assumptions in each of the examples are purely hypothetical and do not relate to the actual performance of either Reference Asset. The hypothetical terms do not purport to be representative of every possible scenario concerning increases or decreases in the Final Level of each Reference Asset relative to its Initial Level. We cannot predict the actual performance of each Reference Asset.

The table below illustrates the Payment at Maturity of the Notes (including the final Coupon Payment) for a hypothetical range of performance for the Lesser Performing Reference Asset, assuming an Initial Level of 100, a Barrier Level of 50.00 and an initial investment of \$1,000. For this purpose, we have assumed that there will be no market disruption events. Hypothetical Final Levels of the Lesser Performing Reference Asset are shown in the first column on the left. The second column shows the Percentage Change for the Lesser Performing Reference Asset. The third column shows the sum of the Payment at Maturity and the final Coupon Payment, as a percentage of the principal amount. The last column shows the sum of the hypothetical Payment at Maturity and the final Coupon Payment per \$1,000 in principal amount of the Notes. The amounts in the table have been rounded for ease of analysis.

We make no representation or warranty as to which of the Reference Assets will be the Lesser Performing Reference Asset for purposes of calculating the payment, if any, we will deliver or pay on the Maturity Date.

Hypothetical Final Level of the Lesser Performing Reference Asset	Percentage Change	Payment at Maturity as Percentage of Principal Amount	Hypothetical Payment at Maturity
140.00	40.00%	100.7708%	\$1,007.708
130.00	30.00%	100.7708%	\$1,007.708
120.00	20.00%	100.7708%	\$1,007.708
110.00	10.00%	100.7708%	\$1,007.708
100.00	0.00%	100.7708%	\$1,007.708
90.00	-10.00%	100.7708%	\$1,007.708
80.00	-20.00%	100.7708%	\$1,007.708
70.00	-30.00%	100.7708%	\$1,007.708
60.00	-40.00%	100.7708%	\$1,007.708
50.00	-50.00%	50.7708%	\$507.708
40.00	-60.00%	40.7708%	\$407.708
30.00	-70.00%	30.7708%	\$307.708
20.00	-80.00%	20.7708%	\$207.708
10.00	-90.00%	10.7708%	\$107.708
0.00	-100.00%	0.7708%	\$7.708

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. In addition to the hypothetical payment at maturity, an investor would have received the periodic Coupon Payments over the term of the Notes.

Example 1: The level of the Lesser Performing Reference Asset increases by 40% from the Initial Level of 100.00 to a Final Level of 140.00. Because the Final Level of the Lesser Performing Reference Asset is greater than its Barrier Level, the investor receives at maturity, in addition to the final Coupon Payment, a cash payment of \$1,000 per Note, despite the 40% appreciation in the value of the Lesser Performing Reference Asset.

Example 2: The level of the Lesser Performing Reference Asset decreases by 10% from the Initial Level of 100.00 to a Final Level of 90.00. Because the Final Level of the Lesser Performing Reference Asset is greater than its Barrier Level, the investor receives at maturity, in addition to the final Coupon Payment, a cash payment of \$1,000 per Note, despite the 10% decline in the value of the Lesser Performing Reference Asset.

Example 3: The level of the Lesser Performing Reference Asset decreases by 50% from the Initial Level of 100 to the Final Level of 50.00, which is less than its Barrier Level. Because the Final Level of the Lesser Performing Reference Asset is less than its Barrier Level, in addition to the final Coupon Payment, we will pay \$500.00 for each \$1,000 in principal amount of the Notes, calculated as follows:

$$\begin{aligned} &\text{Principal Amount} + (\text{Principal Amount} \times \text{Percentage Change of the Lesser Performing Reference Asset}) \\ &= \$1,000 + (\$1,000 \times -50.00\%) = \$1,000 - \$500.00 = \$500.00 \end{aligned}$$

* * *

The Payments at Maturity shown above are entirely hypothetical; they are based on values of the Reference Assets 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 either Reference Asset or the securities represented by any Reference Asset.

SELECTED RISK CONSIDERATIONS

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the Reference Assets. These risks are explained in more detail in the section “Additional Risk Factors Specific to Your Notes” 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 and Structure of the Notes

- **You May Lose Some or All of the Principal Amount at Maturity** — Investors in the Notes could lose some or all of their principal amount if there is a decline in the value of the Lesser Performing Reference Asset between the Strike Date and the Valuation Date. If the Final Level of the Lesser Performing Reference Asset on the Valuation Date is less than its Barrier 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 value of the Lesser Performing Reference Asset from the Strike Date to the Valuation Date. The rate of interest payable on the Notes may not be sufficient to compensate for any such loss.
- **The Payments on the Notes Are Limited to the Coupon Payments** — The return potential of the Notes is limited to the pre-specified Coupon Rate, regardless of the appreciation of the Reference Assets. If the Final Level of the Lesser Performing Reference Asset on the Valuation Date is less than its Barrier Level, you will be subject to the full downside performance of the Lesser Performing Reference Asset, even though your potential return is limited to the Coupon Rate. As a result, the return on an investment in the Notes could be less than the return on a direct investment in the Reference Assets.
- **The Amount Payable at Maturity Will Be Determined Solely by Reference to the Lesser Performing Reference Asset, Even if the Other Reference Asset Performs Better** — If either of the Reference Assets has a Final Level that is less than its Barrier Level, your return will be linked to the Lesser Performing Reference Asset. Even if the Final Level of the other Reference Asset has increased compared to its respective Initial Level, or has experienced a decrease that is less than that of the Lesser Performing Reference Asset, your return will only be determined by reference to the performance of the Lesser Performing Reference Asset, regardless of the performance of the other Reference Asset.
- **Your Payment on the Notes Will Be Determined by Reference to Each Reference Asset Individually, Not to a Basket, and the Payment at Maturity Will Be Based on the Performance of the Lesser Performing Reference Asset** — The Payment at Maturity will be determined only by reference to the performance of the Lesser Performing Reference Asset, regardless of the performance of the other Reference Asset. The Notes are not linked to a weighted basket, in which the risk may be mitigated and diversified among each of the basket components. For example, in the case of notes linked to a weighted basket, the return would depend on the weighted aggregate performance of the basket components reflected as the basket return. As a result, the depreciation of one basket component could be mitigated by the appreciation of the other basket component, as scaled by the weighting of those basket components. However, in the case of the Notes, the individual performance of each of the Reference Assets would not be combined, and the depreciation of one Reference Asset would not be mitigated by any appreciation of the other Reference Asset. Instead, your return will depend solely on the Final Level of the Lesser Performing Reference Asset.
- **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.
- **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 each Coupon Payment 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 values of the Reference Assets increase after the Strike Date. No assurance can be given as to what our financial condition will be at any time during the term of the Notes.

- **The Payment at Maturity Is Subject to Postponement due to Market Disruption Events and Adjustments** — The payment at maturity and the Valuation Date are subject to adjustment as described in the product prospectus supplement. For a description of what constitutes a market disruption event as well as the consequences of that market disruption event, see “General Terms of the Notes—Consequences of Market Disruption Events” in the product prospectus supplement, and the section below, “Additional Terms Relating to the Index.”
- **The Tax Treatment of the Notes Is Uncertain** — The U.S. federal income 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”) regarding the tax treatment of an investment in the Notes, and the IRS or a court may not agree with the tax treatment described in this document.

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 value of the Reference Assets, 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 the hedging costs relating to the Notes. In addition to bid-ask spreads, the value of the Notes determined by RBCCM for any secondary market price is expected to be based on the secondary rate rather than the internal funding rate used to price the Notes and determine the initial estimated value. As a result, the secondary price will be less than if the internal funding rate was used. The Notes are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Notes to maturity.
- **The Initial Estimated Value of the Notes 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 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.

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 Notes or to the securities represented by the Reference Assets 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 values of the Reference Assets, could be adverse to the interests of the holders of the Notes. We and one or more of our affiliates may, at present or in the future, engage in business with the issuers of the securities represented by the Reference Assets, 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 Assets or securities represented by the Reference Assets. 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 values of the Reference Assets, and, therefore, the market value of the Notes.
- **You Must Rely on Your Own Evaluation of the Merits of an Investment Linked to the Reference Assets** — In the ordinary course of their business, our affiliates may have expressed views on expected movements in the Reference Assets or the equity securities that they represent, and may do so in the future. These views or reports may be communicated to our clients and clients of our affiliates. However, these views are subject to change from time to time. Moreover, other professionals who transact business in markets relating to any Reference Asset may at any time have significantly different views from those of our affiliates. For these reasons, you are encouraged to derive information concerning the Reference Assets from multiple sources, and you should not rely solely on views expressed by our affiliates.

Risks Relating to the Reference Assets

- **Owning the Notes Is Not the Same as Owning the Securities Represented by the Reference Assets** — The return on your Notes is unlikely to reflect the return you would realize if you actually owned shares of WBA or the securities represented by the INDU. For instance, you will not receive or be entitled to receive any dividend payments or other distributions on these 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 these securities may have. Furthermore, the Reference Assets may appreciate substantially during the term of the Notes, while your potential return will be limited to the applicable Coupon Payments.
- **We Cannot Control Actions by the Sponsor of the INDU** — The policies of the sponsor of the INDU may adjust the index in a way that may adversely impact the payments on the Notes. The sponsor may change the composition of the index, or the methodology used to calculate the index. We are not affiliated with this sponsor, and have no control over its actions.
- **The Payments on the Notes Are Subject to Postponement Due to Market Disruption Events and Adjustments** — The Redemption Amount and the Valuation Date are subject to adjustment as to each Reference Asset as described in the product prospectus supplement. For a description of what constitutes a market disruption event, see the section below, "Additional Terms Relating to the Index" and the section "General Terms of the Notes—Market Disruption Events" in the product prospectus supplement.

INFORMATION REGARDING THE INDU

All disclosures contained in this document regarding the INDU, including, without limitation, its make-up, method of calculation, and changes in its components, has been derived from publicly available sources, without independent investigation. That information reflects the policies of, and is subject to change by the sponsor. Neither we nor RBCCM accepts any responsibility for the calculation, maintenance or publication of the INDU or any successor to that Reference Asset.

Dow Jones Industrial Average™ (“INDU”)

The INDU is designed to provide an indication of the composite performance of 30 common stocks of corporations representing a broad cross-section of U.S. industry. The corporations represented in this index tend to be market leaders in their respective industries and their stocks are typically widely held by individuals and institutional investors. The index is a price-weighted index, which means an underlying stock's weight in the index is based on its price per share rather than the total market capitalization of the issuer.

The index is maintained by an Averages Committee. The committee is composed of three representatives of S&P Dow Jones Indices and two representatives of The Wall Street Journal. The Averages Committee was created in 2010, when Dow Jones Indexes became part of CME Group Index Services, LLC, a joint venture company owned by CME Group Inc. and by Dow Jones & Company. Generally, composition changes occur only after mergers, corporate acquisitions or other dramatic shifts in a component's core business. When such an event necessitates that one component be replaced, the entire index is reviewed. As a result, when changes are made they typically involve more than one component. While there are no rules for component selection, a stock typically is added only if it has an excellent reputation, demonstrates sustained growth, is of interest to a large number of investors and accurately represents the sector(s) covered by the average.

Changes in the composition of the index are made entirely by the Averages Committee without consultation with the corporations represented in the index, any stock exchange, any official agency or us. Unlike most other indices, which are reconstituted according to a fixed review schedule, constituents of the index are reviewed on an as-needed basis. Changes to the common stocks included in the index tend to be made infrequently, and the underlying stocks of the index may be changed at any time for any reason. The companies currently represented in the index are incorporated in the United States and its territories and their stocks are listed on the New York Stock Exchange and Nasdaq.

In addition to the daily governance of the index, at least once within any 12-month period, the Averages Committee reviews the methodology to ensure that the index continues to achieve its stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

The index initially consisted of 12 common stocks and was first published in the WSJ in 1896. The index was increased to include 20 common stocks in 1916 and to 30 common stocks in 1928. The number of common stocks in the index has remained at 30 since 1928, and, in an effort to maintain continuity, the constituent corporations represented in the index have been changed on a relatively infrequent basis.

Computation of the Index

The level of the index is the sum of the primary exchange prices of each of the 30 component stocks included in the index, divided by a divisor that is designed to provide a meaningful continuity in the level of the index. Because the index is price-weighted, stock splits or changes in the component stocks could result in distortions in the index level. In order to prevent these distortions related to extrinsic factors, the divisor is periodically changed in accordance with a mathematical formula that reflects adjusted proportions within the index.

License Agreement

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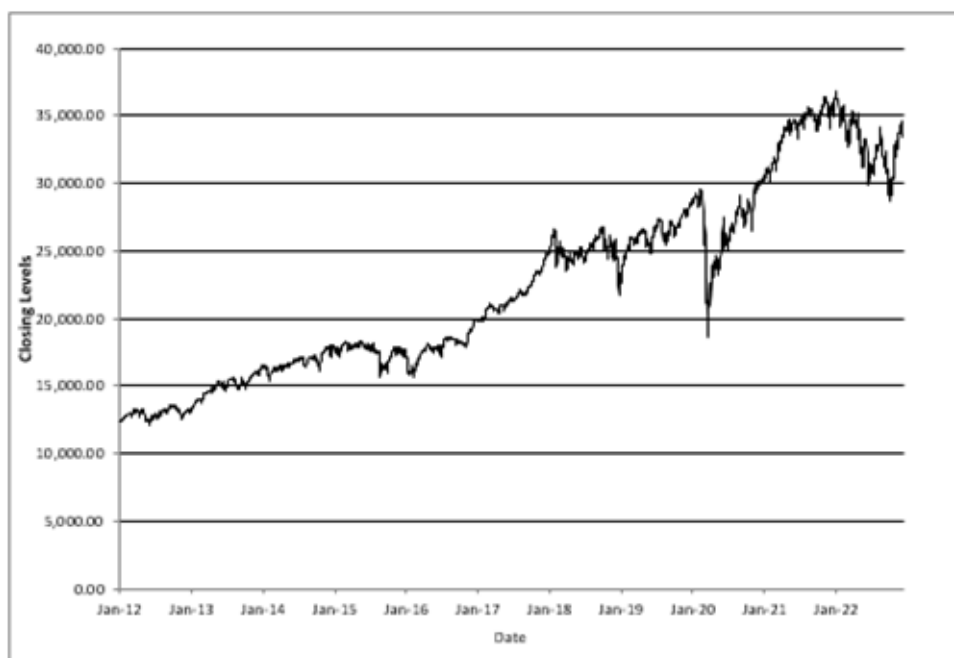
Historical Information

The graph below sets forth information relating to the historical performance of the INDU for the period from January 1, 2012 through December 12, 2022.

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

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

Dow Jones Industrial Average™ ("INDU")



PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.

INFORMATION REGARDING WBA

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

The following information regarding WBA is derived from publicly available information. We have not independently verified the accuracy or completeness of reports filed by WBA with the SEC, information published by it on its website or in any other format, information about it obtained from any other source or the information provided below.

Walgreens Boots Alliance, Inc.

Walgreens Boots Alliance, Inc. operates as a health and beauty retail company. The company sells prescription drugs and an assortment of retail products, including health, wellness, beauty, personal care, consumable, and general merchandise products through its retail drugstores.

The company’s common stock is listed on the Nasdaq Global Select Market under the ticker symbol “WBA.”

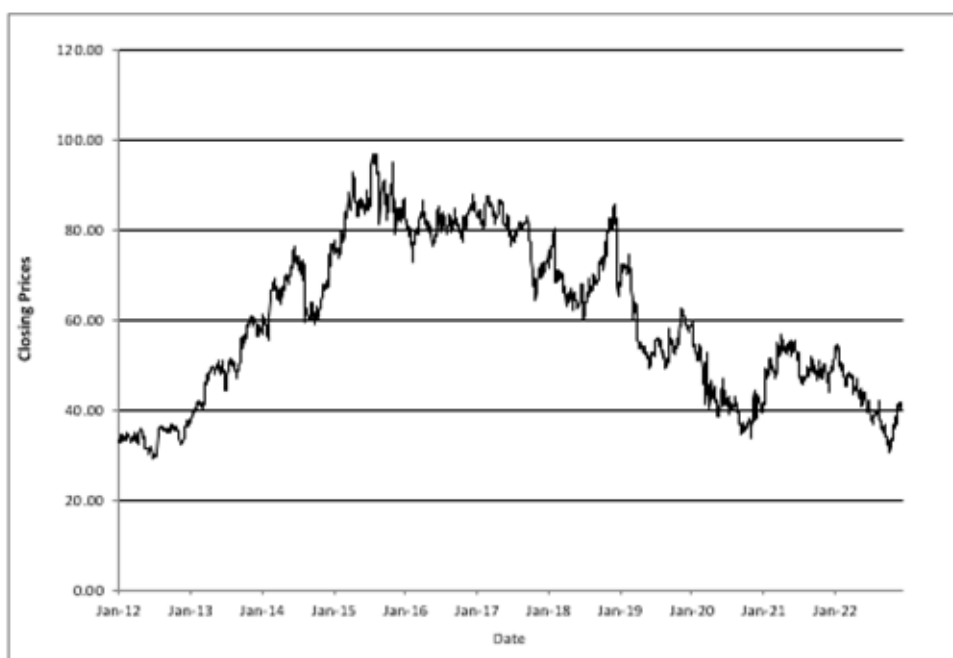
Historical Information

The graph below sets forth information relating to the historical performance of WBA for the period from January 1, 2012 through December 12, 2022.

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

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

Walgreens Boots Alliance, Inc. ("WBA")



ADDITIONAL TERMS RELATING TO THE INDEX

Unavailability of the Level of the INDU

If the index sponsor discontinues publication of the INDU, and its 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 index (such successor or substitute index being referred to in this section as a “successor index”), then any subsequent index closing level will be determined by reference to the published level of that successor index at the regular weekday close of trading on the applicable trading day.

Upon any selection by the Calculation Agent of a successor index, the Calculation Agent will provide written notice to the trustee of the selection, and the trustee will furnish written notice thereof, to the extent the trustee is required to under the senior debt indenture, to each noteholder, or in the case of global notes, the depositary, as holder of the global notes.

If a successor index is selected by the Calculation Agent, that successor index will be used as a substitute for the Index for all purposes, including for purposes of determining whether a market disruption event exists with respect to the index.

If the index sponsor discontinues publication of the INDU prior to, and that discontinuance is continuing on, any trading day on which its level must be determined and the Calculation Agent determines, in its sole discretion, that no successor index is available at that time, then the Calculation Agent will determine the level of the INDU for the relevant date in accordance with the formula for and method of calculating the index last in effect prior to the discontinuance, without rebalancing or substitution, using the closing level (or, if trading in the relevant underlying securities or components of the index have been materially suspended or materially limited, its good faith estimate of the closing level that would have prevailed but for that suspension or limitation) at the close of the principal trading session of the relevant exchange on that date of each security or component most recently comprising the index. Notwithstanding these alternative arrangements, discontinuance of the publication of the INDU may adversely affect the value of the Notes.

If at any time the method of calculating a closing level for the INDU or a successor index is changed in a material respect, or if the index is in any other way modified so that the index does not, in the opinion of the Calculation Agent, fairly represent the level of the index had those changes or modifications not been made, then, from and after that time, the Calculation Agent will, at the close of business in New York City on the applicable trading day, make such calculations and adjustments as, in the good faith judgment of the Calculation Agent, may be necessary in order to arrive at a level of the index comparable to the index as if those changes or modifications had not been made. Accordingly, if the method of calculating the index is modified so that the value of the index is a fraction of what it would have been if it had not been modified (e.g., due to a split in the index), then the Calculation Agent will adjust the index in order to arrive at a value of the index as if it had not been modified (e.g., as if such split had not occurred).

Market Disruption Events Relating to the INDU

As to the INDU, a market disruption event means any event, circumstance or cause which we determine, and the Calculation Agent confirms, has or will have a material adverse effect on our ability to perform our obligations under the Notes or to hedge our position in respect of the Notes, and more specifically includes the following events to the extent that they have such effect with respect to the INDU:

- a suspension, absence or limitation of trading in index components constituting 20% or more, by weight, of the index;
- a suspension, absence or limitation of trading in futures or options contracts relating to the index on their market;
- any event that disrupts or impairs, as determined by the Calculation Agent, the ability of market participants to (i) effect transactions in, or obtain market values for, index components constituting 20% or more, by weight, of the index, or (ii) effect transactions in, or obtain market values for, futures or options contracts relating to the index on their market;
- the closure on any day of the primary market for futures or options contracts relating to the index or index components constituting 20% or more, by weight, of the index on a scheduled trading day prior to the scheduled

weekday closing time of that market (without regard to after hours or any other trading outside of the regular trading session hours) unless such earlier closing time is announced by the primary market at least one hour prior to the earlier of (i) the actual closing time for the regular trading session on such primary market on such scheduled trading day for such primary market and (ii) the submission deadline for orders to be entered into the relevant exchange system for execution at the close of trading on such scheduled trading day for such primary market;

- any scheduled trading day on which (i) the primary markets for index components constituting 20% or more, by weight, of the index or (ii) the exchanges or quotation systems, if any, on which futures or options contracts on the index are traded, fails to open for trading during its regular trading session; or
- any other event, if the Calculation Agent determines that the event interferes with our ability or the ability of any of our affiliates to unwind all or a portion of a hedge with respect to the Notes that we or our affiliates have effected or may effect.

Trading Day

As to the INDU, a trading day with respect to the Notes means a day on which the principal trading market for the index is open for trading.

SUPPLEMENTAL DISCUSSION OF U.S. FEDERAL INCOME TAX CONSEQUENCES

The following disclosure supplements, and to the extent inconsistent supersedes, the discussion in the product prospectus supplement dated September 14, 2021 under “Supplemental Discussion of U.S. Federal Income Tax Consequences” (including the opinion of our special U.S. tax counsel, Ashurst LLP), which applies to the Notes.

We will not attempt to ascertain whether the issuer of a Reference Asset or any component of a Reference Asset would be treated as a “passive foreign investment company” within the meaning of Section 1297 of the Code, or a “U.S. real property holding corporation” within the meaning of Section 897 of the Code. If the issuer of a Reference Asset or a component of a Reference Asset were so treated, certain adverse U.S. federal income tax consequences could possibly apply to a holder. You should refer to any available information filed with the SEC and other authorities by the issuer of any Reference Asset or component of a Reference Asset and consult your tax advisor regarding the possible consequences to you in this regard.

By purchasing a Note, each holder agrees (in the absence of a change in law, an administrative determination or a judicial ruling to the contrary) to treat the Notes as an investment unit consisting of (i) a non-contingent debt instrument issued by us to you (the “Debt Portion”) and (ii) a put option with respect to the Reference Assets written by you and purchased by us (the “Put Option”). With respect to the Coupon Payments you receive, 4.79% of each 9.25% Coupon Payment will be treated as an interest payment, and 4.46% of each 9.25% Coupon Payment will be treated as payment for the Put Option 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 IRS could assert that the Notes should be taxed in a manner that is different from that described in the preceding sentence.

Under Section 871(m) of the Code, a “dividend equivalent” payment is treated as a dividend from sources within the United States. Such payments generally would be subject to a 30% U.S. withholding tax if paid to a non-U.S. holder. Under U.S. Treasury Department regulations, payments (including deemed payments) with respect to equity-linked instruments (“ELIs”) that are “specified ELIs” may be treated as dividend equivalents if such specified ELIs reference, 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 a Reference Asset or the Notes (for example, upon a rebalancing of a Reference Asset), 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 a Reference Asset or the Notes should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the Notes and their other transactions. If any payments are treated as dividend equivalents subject to withholding, we (or the applicable withholding agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

SUPPLEMENTAL PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

Delivery of the Notes will be made against payment for the Notes on December 19, 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 dated September 14, 2021. 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.

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 3 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 initially 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 Assets. 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 Assets, 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 Royal Bank's Form 6-K filed with the SEC dated 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.