



Capital
Markets

INDEX LINKED SECURITIES | RBC GLOBAL INVESTMENT SOLUTIONS

RBC Solactive Bank of Nova Scotia AR Index Callable Contingent Yield 16.26% Securities (CAD), Series 948, F-Class Non-Principal Protected Security

7.0 year
term

Performance linked
to the Solactive Bank
of Nova Scotia AR
4.12 Index

Potential 16.2600%
coupon per annual
period

80% protection
barrier

Callable quarterly
at 105%

Subscriptions
Close

on or about
October 20, 2023

FUNDSERV

RBC10381

Autocall
Observation Dates

October 23, 2024 and
quarterly thereafter

This summary is qualified in its entirety by a pricing supplement (the "Pricing Supplement"), the base shelf prospectus dated March 25, 2022, the program prospectus supplement dated March 28, 2022, as supplemented November 11, 2022 and March 2, 2023 and the product prospectus supplement dated March 28, 2022 in respect of index linked securities, as supplemented November 11, 2022 and March 2, 2023.

www.rbcnotes.com

KEY TERMS

Issuer:	Royal Bank of Canada
Issuer Credit Ratings:	Moody's: Aa1; S&P: AA-; DBRS: AA
Currency:	CAD
Minimum Investment:	50 Securities or \$5,000
Term:	Approximately 7.0 years
Principal at Risk:	The Securities are not principal protected.
Underlying Index:	The return on the Securities is linked to the adjusted returns of the Solactive Bank of Nova Scotia AR 4.12 Index (the "Underlying Index"). The Underlying Index is an adjusted return index that aims to track the gross total return performance of the BNS GTR Index (the "Target Index"), subject to a reduction of a synthetic dividend of 4.12 index points per annum calculated daily in arrears (the "Adjusted Return Factor"). The only constituent securities in the Target Index are the common shares of The Bank of Nova Scotia (the "Constituent Securities" and the "Constituent Securities Issuer", respectively). For the avoidance of doubt, the return on the Securities is linked to the Underlying Index and is not linked to the Target Index or the Constituent Securities. The Closing Level on October 6, 2023 was 60.16. The Adjusted Return Factor divided by the Closing Level was therefore equal to 6.8484% on October 6, 2023. If an Autocall Redemption Event does not occur, over the term of the Securities the sum of the Adjusted Return Factor will be approximately 28.84 index points, representing 47.9388% of the Closing Level on October 6, 2023. For the calculation of the level of the Target Index, any dividends or other distributions paid on the constituent securities of the Target Index are assumed to be reinvested across all of the Constituent Securities. As of October 6, 2023, the annual dividend yield on the Target Index was 7.0359%, representing an aggregate dividend yield of approximately 60.956% compounded annually over the term of the Securities, on the assumption that the dividend yield remains constant. Securities do not represent an interest in the Underlying Index, the Target Index or the Constituent Securities, and holders will have no right or entitlement to Constituent Securities including, without limitation, redemption rights (if any), voting rights or rights to receive dividends or other distributions paid on Constituent Securities.
Issue Date:	October 27, 2023
Initial Index Level:	The "Initial Index Level" is the Closing Level on October 23, 2023.
Protection Barrier Level:	The "Protection Barrier Level" is 80.00% of the Initial Index Level.

A final base shelf prospectus containing important information relating to the securities described in this document has been filed with the securities regulatory authorities in each of the provinces and territories of Canada. A copy of the final base shelf prospectus, any amendment to the final base shelf prospectus and any applicable shelf prospectus supplement that has been filed, is required to be delivered with this document. This document does not provide full disclosure of all material facts relating to the securities offered. Investors should read the final base shelf prospectus, any amendment and any applicable shelf prospectus supplement for disclosure of those facts, especially risk factors relating to the securities offered, before making an investment decision.

KEY TERMS CONTINUED

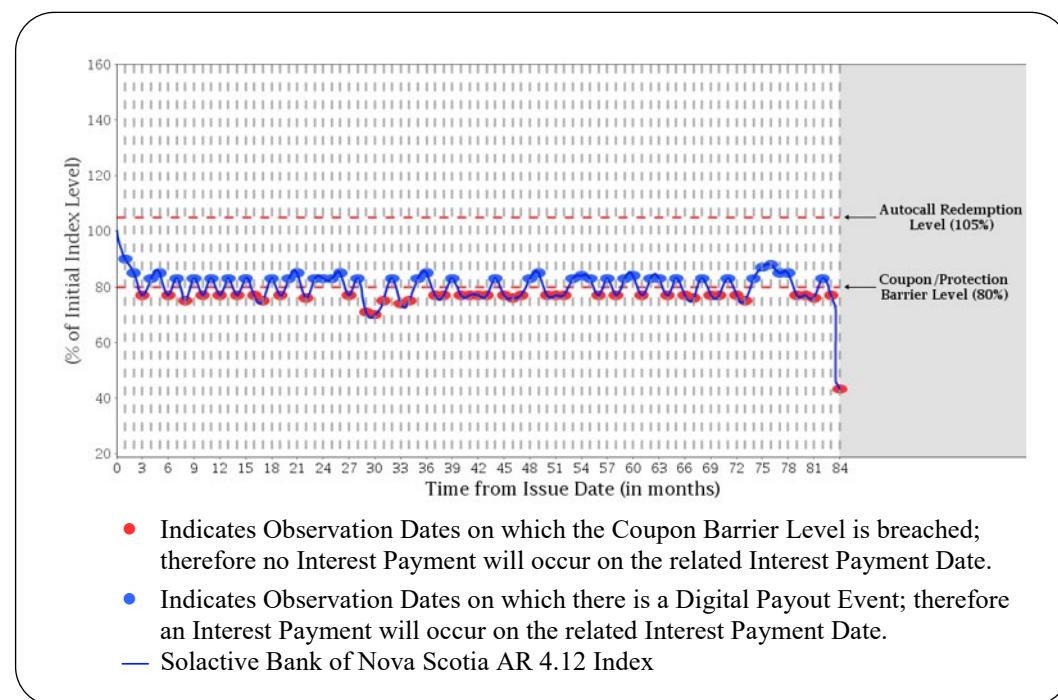
Coupon Barrier Level:	The “ Coupon Barrier Level ” is 80.00% of the Initial Index Level.
Final Index Level:	The “ Final Index Level ” is the Closing Level on October 23, 2030 (the “ Final Valuation Date ”).
Closing Level:	The “ Closing Level ” on any date is the official closing level of the Underlying Index quoted on www.solactive.com for such date, as determined by the Calculation Agent.
Maturity Date:	October 28, 2030
Observation Dates:	An “ Observation Date ” for the purposes of determining the amount of any Interest Payment will occur monthly, from and including November 23, 2023 and on the 23 rd day of each month thereafter, to and including October 23, 2030, in each year that the Securities are outstanding and provided that the Securities are not redeemed by the Bank as described below. If any such Observation Date is not an Exchange Day, such Observation Date will be on the first following day that is an Exchange Day.
Interest Payment Dates:	The “ Interest Payment Date ” for an Interest Payment, if any, will occur monthly, on the third Business Day following the corresponding Observation Date for each such month, in each year that the Securities are outstanding and provided that the Securities are not redeemed by the Bank as described below. The final Interest Payment, if any, will be made on the earlier of the Autocall Redemption Date (if applicable) and the Maturity Date.
Interest Payments:	<p>Interest payments (the “Interest Payments” and each, an “Interest Payment”), if any, on the Securities will be payable on each Interest Payment Date, in arrears, at a fixed interest rate of 1.3550% monthly ending on an Interest Payment Date (an “Interest Period”) for each Interest Period in which a Digital Payout Event occurs on the Observation Date occurring in the Interest Period. On the basis of the foregoing, the interest on each \$100 Principal Amount of Securities for an Interest Period in which a Digital Payout Event has occurred would equal $\\$100 \times 1.3550\%$.</p> <p>Thus, if a Digital Payout Event occurs:</p> <ul style="list-style-type: none"> (a) on each Observation Date in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$16.26; (b) on eleven out of the twelve Observation Dates in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$14.905; (c) on ten out of the twelve Observation Dates in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$13.55; (d) on nine out of the twelve Observation Dates in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$12.195; (e) on eight out of the twelve Observation Dates in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$10.84; (f) on seven out of the twelve Observation Dates in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$9.485; (g) on six out of the twelve Observation Dates in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$8.13; (h) on five out of the twelve Observation Dates in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$6.775; (i) on four out of the twelve Observation Dates in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$5.42; (j) on three out of the twelve Observation Dates in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$4.065; (k) on two out of the twelve Observation Dates in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$2.71; and (l) on one out of the twelve Observation Dates in any twelve-month period, the amount of interest payable on each \$100 Principal Amount of Securities for that twelve-month period will be \$1.355. <p>If a Digital Payout Event does not occur on the Observation Date during a particular Interest Period, no interest will be payable on the Securities for such Interest Period.</p>
Digital Payout Event:	A “ Digital Payout Event ” will occur if, on the relevant Observation Date, the Closing Level is greater than or equal to the Coupon Barrier Level.
Autocall Redemption Event:	An “ Autocall Redemption Event ” will occur if the Closing Level on an Autocall Observation Date is greater than or equal to 105.00% of the Initial Index Level (the “ Autocall Redemption Level ”). Following the occurrence of an Autocall Redemption Event, the Securities will be redeemed for an amount equal to the Principal Amount thereof (the “ Autocall Redemption Amount ”) on the Autocall Redemption Date. In addition to the Autocall Redemption Amount, an Interest Payment will be paid on the Autocall Redemption Date.

Autocall Observation Dates:	<p>An “Autocall Observation Date” for the purposes of determining an Autocall Redemption Event will occur quarterly on the Observation Dates specified below in each year that the Securities are outstanding, from and including October 23, 2024 to and including July 23, 2030. If any such Autocall Observation Date is not an Exchange Day, such Autocall Observation Date will be on the first following day that is an Exchange Day.</p> <p>Provided that the Securities are not redeemed by the Bank, the Bank intends the Autocall Observation Dates to be:</p> <table> <tr><td>October 23, 2024</td><td>January 23, 2025</td></tr> <tr><td>April 23, 2025</td><td>July 23, 2025</td></tr> <tr><td>October 23, 2025</td><td>January 23, 2026</td></tr> <tr><td>April 23, 2026</td><td>July 23, 2026</td></tr> <tr><td>October 23, 2026</td><td>January 25, 2027</td></tr> <tr><td>April 23, 2027</td><td>July 23, 2027</td></tr> <tr><td>October 25, 2027</td><td>January 24, 2028</td></tr> <tr><td>April 24, 2028</td><td>July 24, 2028</td></tr> <tr><td>October 23, 2028</td><td>January 23, 2029</td></tr> <tr><td>April 23, 2029</td><td>July 23, 2029</td></tr> <tr><td>October 23, 2029</td><td>January 23, 2030</td></tr> <tr><td>April 23, 2030</td><td>July 23, 2030</td></tr> </table>	October 23, 2024	January 23, 2025	April 23, 2025	July 23, 2025	October 23, 2025	January 23, 2026	April 23, 2026	July 23, 2026	October 23, 2026	January 25, 2027	April 23, 2027	July 23, 2027	October 25, 2027	January 24, 2028	April 24, 2028	July 24, 2028	October 23, 2028	January 23, 2029	April 23, 2029	July 23, 2029	October 23, 2029	January 23, 2030	April 23, 2030	July 23, 2030
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Autocall Redemption Date:	<p>The “Autocall Redemption Date” for an Autocall Redemption Event, if applicable, will be the next succeeding Interest Payment Date, among those specified below, following the occurrence of such Autocall Redemption Event.</p> <p>The Bank intends the Autocall Redemption Date, if applicable, to be one of the following Interest Payment Dates:</p> <table> <tr><td>October 28, 2024</td><td>January 28, 2025</td></tr> <tr><td>April 28, 2025</td><td>July 28, 2025</td></tr> <tr><td>October 28, 2025</td><td>January 28, 2026</td></tr> <tr><td>April 28, 2026</td><td>July 28, 2026</td></tr> <tr><td>October 28, 2026</td><td>January 28, 2027</td></tr> <tr><td>April 28, 2027</td><td>July 28, 2027</td></tr> <tr><td>October 28, 2027</td><td>January 27, 2028</td></tr> <tr><td>April 27, 2028</td><td>July 27, 2028</td></tr> <tr><td>October 26, 2028</td><td>January 26, 2029</td></tr> <tr><td>April 26, 2029</td><td>July 26, 2029</td></tr> <tr><td>October 26, 2029</td><td>January 28, 2030</td></tr> <tr><td>April 26, 2030</td><td>July 26, 2030</td></tr> </table>	October 28, 2024	January 28, 2025	April 28, 2025	July 28, 2025	October 28, 2025	January 28, 2026	April 28, 2026	July 28, 2026	October 28, 2026	January 28, 2027	April 28, 2027	July 28, 2027	October 28, 2027	January 27, 2028	April 27, 2028	July 27, 2028	October 26, 2028	January 26, 2029	April 26, 2029	July 26, 2029	October 26, 2029	January 28, 2030	April 26, 2030	July 26, 2030
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Payment at Maturity:	<p>On the Maturity Date, if the Securities have not been previously redeemed, the amount payable (the “Final Redemption Amount”) for each \$100 Principal Amount per Security will be equal to:</p> <p>(a) if the Final Index Level is greater than or equal to the Protection Barrier Level, \$100; or</p> <p>(b) if the Final Index Level is less than the Protection Barrier Level, an amount equal to the Index Return, but in any event not less than \$1.00.</p> <p>In addition to the Final Redemption Amount, an Interest Payment will be paid on the Maturity Date if a Digital Payout Event occurs on the Final Valuation Date.</p>																								
Index Return:	<p>“Index Return” means $100 \times (X_f / X_i)$, where: “X_f” means the Final Index Level, and “X_i” means the Initial Index Level.</p>																								
Secondary Market:	Fundserv, RBC10381																								

Generally, to be effective on a Business Day, a redemption request will need to be initiated by 2:00 p.m. (Toronto time) on that Business Day (or such other time as may be established by Fundserv). Any request received after such time will be deemed to be a request sent and received on the next following Business Day.

The examples set out below are included for illustration purposes only. The performance of the Underlying Index used to illustrate the calculation of the Final Redemption Amount or Autocall Redemption Amount and the Interest Payments over the term of the Securities is not an estimate or forecast of the performance of the Underlying Index or the Securities. All examples assume that a holder of the Securities has purchased Securities with an aggregate Principal Amount of \$100 and that no Extraordinary Event has occurred. All examples assume a Coupon Barrier Level of 80.00% of the Initial Index Level, a Protection Barrier Level of 80.00% of the Initial Index Level and an Autocall Redemption Level of 105.00% of the Initial Index Level. For convenience, each vertical line in the charts below represents both a hypothetical Observation Date and the next succeeding Interest Payment Date. Certain dollar amounts are rounded to the nearest whole cent.

Example #1: Loss Scenario with Payment on the Maturity Date at Less Than the Principal Amount



In this scenario, there is no Autocall Observation Date on which the Closing Level is at or above the Autocall Redemption Level and, accordingly, the Securities would not be redeemed before the Maturity Date. On the Final Valuation Date, the Final Index Level is below the Protection Barrier Level.

(i) Interest Payments

In this example, there is a Digital Payout Event on 41 of the 84 Observation Dates. On the other 43 Observation Dates, no Digital Payout Event would occur because the Closing Level is below the Coupon Barrier Level. Therefore, the Interest Payment of \$1.355 per Interest Period would be payable for 41 Interest Periods on the applicable Interest Payment Date, for total Interest Payments of:

$$\begin{aligned} & \text{Principal Amount of Securities} \times 1.3550\% \text{ per Interest Period} \times 41 \text{ Interest Periods} \\ & \$100 \times 1.3550\% \times 41 = \$55.56 \end{aligned}$$

(ii) Final Redemption Amount

In this example, the Initial Index Level (X_i) is 60.16 and the Final Index Level (X_f) is 24.07. Therefore, the Final Redemption Amount is as follows:

$$\begin{aligned} & \$100 \times (X_f / X_i) \\ & \$100 \times (24.07 / 60.16) = \$40.01 \end{aligned}$$

Therefore, the total amounts payable per Security from the Issue Date to the Maturity Date are:

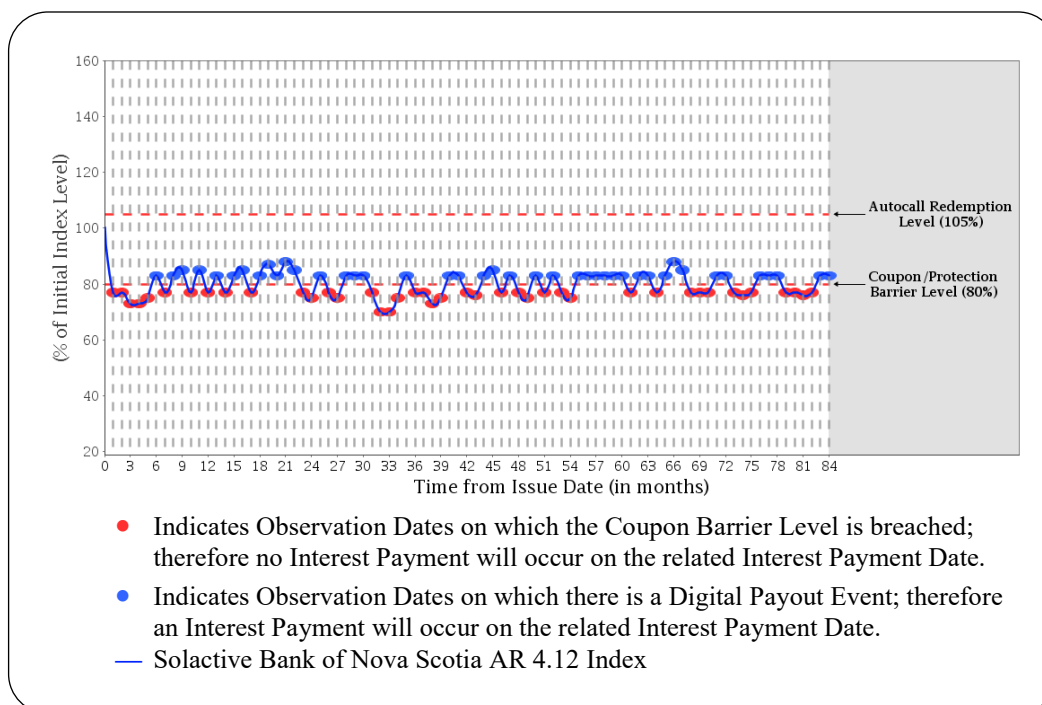
(a) Total Interest Payments: \$55.56

(b) Final Redemption Amount: \$40.01

(c) Total amount paid over the term of the Securities: \$95.57

The equivalent annually compounded rate of return in this example is -0.65%.

Example #2: Gain Scenario with Payment on the Maturity Date at the Principal Amount



In this scenario, there is no Autocall Observation Date on which the Closing Level is at or above the Autocall Redemption Level and, accordingly, the Securities would not be redeemed before the Maturity Date. On the Final Valuation Date, the Final Index Level is at or above the Protection Barrier Level.

(i) Interest Payments

In this example, there is a Digital Payout Event on 42 of the 84 Observation Dates. On the other 42 Observation Dates, no Digital Payout Event would occur because the Closing Level is below the Coupon Barrier Level. Therefore, the Interest Payment of \$1.355 per Interest Period would be payable for 42 Interest Periods on the applicable Interest Payment Date for total Interest Payments of:

$$\begin{aligned} &\text{Principal Amount of Securities} \times 1.3550\% \text{ per Interest Period} \times 42 \text{ Interest Periods} \\ &\$100 \times 1.3550\% \times 42 = \$56.91 \end{aligned}$$

(ii) Final Redemption Amount

In this example, since the Final Index Level is 49.93, which is above the Protection Barrier Level of 80.00% of the Initial Index Level of 60.16, being 48.13, the Final Redemption Amount per Security is equal to \$100.00.

Therefore, the total amounts payable per Security from the Issue Date to the Maturity Date are:

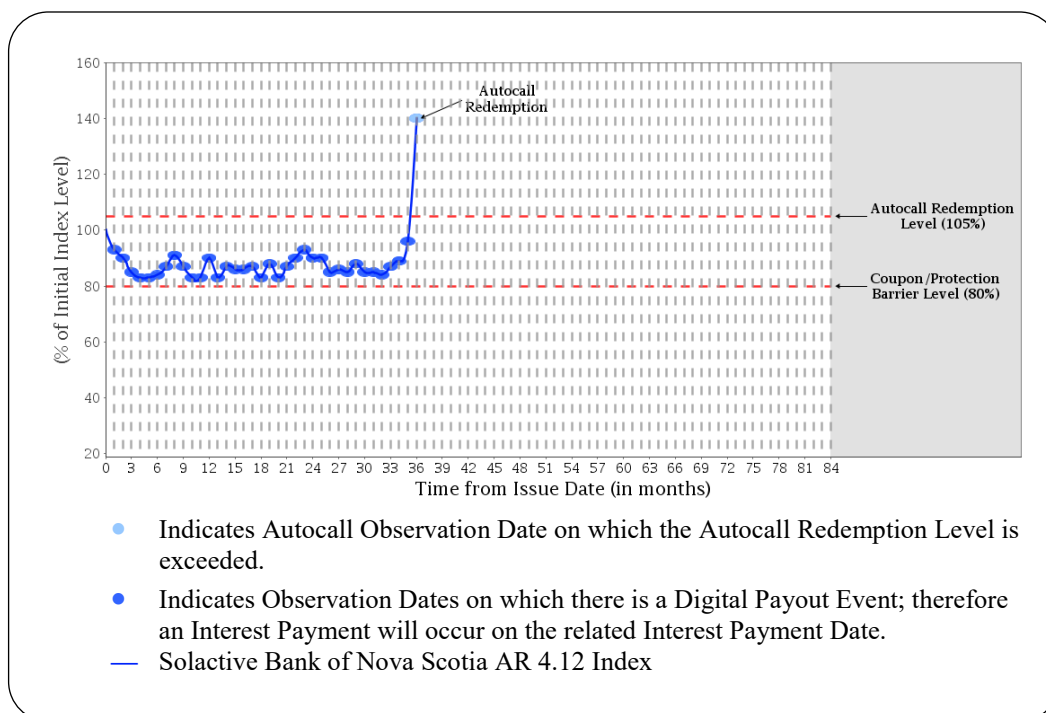
(a) Total Interest Payments: \$56.91

(b) Final Redemption Amount: \$100.00

(c) Total amount paid over the term of the Securities: \$156.91

The equivalent annually compounded rate of return in this example is 6.65%.

Example #3: Gain Scenario with Autocall Redemption Event



In this scenario, the Closing Level is at or above the Autocall Redemption Level on the Autocall Observation Date that falls 36 months into the term of the Securities. This would constitute an Autocall Redemption Event and, on the next succeeding Interest Payment Date, the Bank would redeem the Securities.

(i) Interest Payments

In this example, there is a Digital Payout Event on each of the 36 Observation Dates prior to the redemption of the Securities because the Closing Level is at or above the Coupon Barrier Level on each such date. Therefore, the Interest Payment of \$1.355 per Interest Period would be payable for each Interest Period on the applicable Interest Payment Date (including on the Autocall Redemption Date), for total Interest Payments of:

$$\text{Principal Amount of Securities} \times 1.3550\% \text{ per Interest Period} \times 36 \text{ Interest Periods} \\ \$100 \times 1.3550\% \times 36 = \$48.78$$

(ii) Autocall Redemption Amount

The Autocall Redemption Amount per Security is equal to \$100.00.

Therefore, the total amounts payable per Security from the Issue Date to the Autocall Redemption Date are:

(a) Total Interest Payments: \$48.78

(b) Autocall Redemption Amount: \$100.00

(c) Total amount paid over the term of the Securities: \$148.78

The equivalent annually compounded rate of return in this example is 14.16%.

Initial Estimated Value:	The initial estimated value of the Securities as of October 6, 2023 was \$95.86 per Security, which is less than the price to the public and is not an indication of the actual profit to the Bank or its affiliates. The actual value of the Securities at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount. The initial estimated value of the Securities is an estimate only and is based on the value of the Bank's obligation to make the payments on the Securities. We describe our determination of the initial estimated value in more detail in the Pricing Supplement.
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The Solactive Bank of Nova Scotia AR 4.12 Index is owned, calculated, administered and published by Solactive AG ("Solactive"), and the name "Solactive" is a registered trademark of Solactive. The Solactive Bank of Nova Scotia AR 4.12 Index has been licensed for use by the Bank in connection with the Securities. The Securities are not sponsored, promoted, sold or supported in any other manner by Solactive and Solactive makes no representation or warranty, express or implied, regarding the advisability of investing in such product(s). Solactive does not guarantee the accuracy or completeness of the Solactive Bank of Nova Scotia AR 4.12 Index or the BNS GTR Index, any data included therein, or any data from which it is derived, nor has any liability for any errors, omissions, or interruptions therein.

All capitalized terms unless otherwise defined have the meanings ascribed to them in the Pricing Supplement.

Clients should evaluate the financial, market, legal, regulatory, credit, tax and accounting risks and consequences of the proposal before entering into any transaction, or purchasing any instrument. Clients should evaluate such risks and consequences independently of Royal Bank of Canada and the Dealers, RBC Dominion Securities Inc. and Wellington-Altus Private Wealth Inc., respectively.

The Securities will not constitute deposits insured under the *Canada Deposit Insurance Corporation Act*. The Securities are not fixed income securities and are not designed to be alternatives to fixed income or money market instruments. The Securities are structured products that possess downside risk.

An investment in the Securities involves risks. The Securities are linked to the Underlying Index which reflects (i) the applicable price changes of the Constituent Securities and any dividends and distributions paid in respect of the Constituent Securities, without deduction of any withholding tax or other amounts accruing thereon to which an investor holding the Constituent Securities would typically be exposed, less (ii) the Adjusted Return Factor. An investment in the Securities is not the same as a direct investment in the Constituent Securities and investors have no rights with respect to the Constituent Securities. The return on the Securities will not reflect the total return that an investor would receive if such investor owned the Constituent Securities. The Securities are considered to be "specified derivatives" under applicable Canadian securities laws. If you purchase Securities, you will be exposed to changes in the level of the Underlying Index and fluctuations in interest rates, among other factors. Index levels are volatile and an investment in the Securities may be considered to be speculative. Since the Securities are not principal protected and the Principal Amount will be at risk, you could lose substantially all of your investment.