Capital Markets

RBC

Pricing Supplement

Dated December 15, 2023

To the Prospectus dated September 14, 2021, the Prospectus Supplement dated September 14, 2021, and the Product Prospectus Supplement dated March 3, 2022

$215,000
Buffered Enhanced Return Notes
Linked to the iShares® 20+ Year Treasury Bond ETF, Due June 20, 2025
Royal Bank of Canada

Royal Bank of Canada is offering Buffered Enhanced Return Notes (the "Notes") linked to the performance of the iShares® 20+ Year Treasury Bond ETF (the "Reference Asset").

Reference Asset	Initial Price	Buffer Price*
iShares® 20+ Year Treasury Bond ETF ("TLT")	$99.15	$89.24, which is 90% of its Initial Price

*Rounded to two decimal places.

- If the Final Price of the Reference Asset is greater than the Initial Price, the Notes will pay at maturity a return equal to 200% of the Percentage Change, subject to a Maximum Redemption Amount of 115% of the principal amount of the Notes.
- If the Final Price is less than or equal to the Initial Price, but is greater than or equal to the Buffer Price, the Notes will pay the principal amount at maturity.
- If the Final Price is less than the Buffer Price, investors will lose 1% of the principal amount for each 1% that the Final Price has decreased by more than 10% from the Initial Price.
- Any payments on the Notes are subject to our credit risk.
- The Notes do not pay interest.
- The Notes will not be listed on any securities exchange.

Issue Date: December 20, 2023
Maturity Date: June 20, 2025
CUSIP: 78017F3F8

Investing in the Notes involves a number of risks. See "Selected Risk Considerations" beginning on page P-7 of this pricing supplement, "Additional Risk Factors Specific to the Notes" beginning on page PS-6 of the product prospectus supplement dated March 3, 2022, and "Risk Factors" 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.

	Per Note	Total
Price to public(1)	100.00%	$215,000.00
Underwriting discounts and commissions(1)	1.75%	$3,762.50
Proceeds to Royal Bank of Canada	98.25%	$211,237.50

(1) We or one of our affiliates may pay varying selling concessions of up to $17.50 per $1,000 in principal amount of the Notes in connection with the distribution of the Notes to other registered broker dealers. 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 $982.50 and $1,000.00 per $1,000 in principal amount. In addition, RBC Capital Markets, LLC, which we refer to as RBCCM, or one of its affiliates may pay a referral fee to a broker-dealer that is not affiliated with us in an amount equal to up to 0.25% of the principal amount of the Notes. See "Supplemental Plan of Distribution (Conflicts of Interest)" below.

The initial estimated value of the Notes as of the Trade Date was $966.55 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.

Issuer:	Royal Bank of Canada (the "Bank")
Underwriter:	RBC Capital Markets, LLC ("RBCCM")
Reference Asset:	iShares® 20+ Year Treasury Bond ETF (TLT)
Minimum Investment:	$1,000 and minimum denominations of $1,000 in excess thereof
Trade Date (Pricing Date):	December 15, 2023
Issue Date:	December 20, 2023
Valuation Date:	June 16, 2025
Maturity Date:	June 20, 2025, subject to extension for market and other disruptions, as described in the product prospectus supplement dated March 3, 2022.
Payment at Maturity (if held to maturity):	If the Final Price is ***greater than*** the Initial Price (that is, the Percentage Change is positive), then the investor will receive an amount per $1,000 principal amount per Note equal to the *lesser of*: 1. Principal Amount + [Principal Amount x (Percentage Change x Participation Rate)] and 2. the Maximum Redemption Amount If the Final Price is ***less than or equal to*** the Initial Price, but is ***greater than or equal to*** the Buffer Price (that is, the Percentage Change is between 0% and -10.00%), then the investor will receive the principal amount only. If the Final Price is ***less than*** the Buffer Price (that is, the Percentage Change is less than -10.00%), then the investor will receive a cash payment equal to: Principal Amount + [Principal Amount x (Percentage Change + Buffer Percentage)] *In this case, you will lose some or a significant portion of the principal amount.*
Percentage Change:	The Percentage Change, expressed as a percentage, is calculated using the following formula: $\frac{\text{Final Price} - \text{Initial Price}}{\text{Initial Price}}$
Initial Price:	The closing share price of the Reference Asset on the Trade Date, as set forth on the cover page of this pricing supplement.
Final Price:	The closing share price of the Reference Asset on the Valuation Date.
Participation Rate:	200% (subject to the Maximum Redemption Amount).
Maximum Redemption Amount:	115% multiplied by the principal amount.
Buffer Percentage:	10%
Buffer Price:	90% of the Initial Price, as specified on the cover page of this document

Principal at Risk:	**The Notes are *NOT* principal protected. You may lose a substantial portion of your principal amount at maturity if the Final Price is less than the Buffer Price.**
Calculation Agent:	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 Notes as a pre-paid cash-settled derivative contract 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 dated March 3, 2022 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 of your Notes.**
Listing:	The Notes will not be listed on any securities exchange.
Clearance and 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 above the item captioned “Secondary Market” in this section 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 March 3, 2022, 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 the Notes” in the product prospectus supplement dated March 3, 2022, 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 ERN-ETF-1 dated March 3, 2022:
https://www.sec.gov/Archives/edgar/data/1000275/000114036122007839/brhc10034774_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 RETURNS

The examples set out below are included for illustration purposes only. The **hypothetical** Percentage Changes of the Reference Asset used to illustrate the calculation of the Payment at Maturity (rounded to two decimal places) are not estimates or forecasts of the Final Price or the share price of the Reference Asset on any trading day prior to the Maturity Date. All examples are based on the Buffer Percentage of 10%, resulting in a Buffer Price of 90% of the Initial Price, the Participation Rate of 200%, the Maximum Redemption Amount of 115% of the principal amount, and assume that a holder purchased Notes with an aggregate principal amount of $1,000 and that no market disruption event occurs on the Valuation Date.

Example 1 — Calculation of the Payment at Maturity where the Percentage Change is positive.

Percentage Change: 2%

Payment at Maturity: $1,000 + [$1,000 x (2% x 200%)] = $1,000 + $40.00 = $1,040

On a $1,000 investment, a Percentage Change of 2% results in a Payment at Maturity of $1,040, a return of 4.00% on the Notes.

Example 2 — Calculation of the Payment at Maturity where the Percentage Change is positive (and the Payment at Maturity is subject to the Maximum Redemption Amount).

Percentage Change: 35%

Payment at Maturity: $1,000 + [$1,000 x (35% x 200%)] = $1,000 + $700 = $1,700
However, the Maximum Redemption Amount is $1,150. Accordingly, you will receive a payment at maturity equal to $1,150 per $1,000 in principal amount of the Notes.

On a $1,000 investment, a Percentage Change of 35% results in a Payment at Maturity of $1,150, a return of 15% on the Notes.

Example 3 — Calculation of the Payment at Maturity where the Percentage Change is negative (but not by more than the Buffer Percentage).

Percentage Change: -8%

Payment at Maturity: At maturity, if the Percentage Change is negative BUT not by more than the Buffer Percentage, then the Payment at Maturity will equal the principal amount.

On a $1,000 investment, a Percentage Change of -8% results in a Payment at Maturity of $1,000, a return of 0% on the Notes.

Example 4 — Calculation of the Payment at Maturity where the Percentage Change is negative (by more than the Buffer Percentage).

Percentage Change: -35%

Payment at Maturity: $1,000 + [$1,000 x (-35% + 10%)] = $1,000 - $250 = $750

On a $1,000 investment, a -35% Percentage Change results in a Payment at Maturity of $750, a return of -25% on the Notes.

The table set forth below is included for illustration purposes only. The table illustrates the hypothetical payments at maturity for a hypothetical range of performance for the Reference Asset, based on the Participation Rate of 200%, the Buffer Percentage of 10% and the Maximum Redemption Amount of 115% of the principal amount.

Hypothetical Percentage Changes are shown in the first column on the left. The second column shows the corresponding Redemption Amount for these Percentage Changes, expressed as a percentage of the principal amount of the Notes. The third column shows the Redemption Amount to be paid on the Notes per $1,000 in principal amount.

Hypothetical Percentage Change	Redemption Amount as Percentage of Principal Amount	Redemption Amount per $1,000 in Principal Amount
40.00%	115.00%	$1,150.00
30.00%	115.00%	$1,150.00
20.00%	115.00%	$1,150.00
10.00%	115.00%	$1,150.00
7.50%	**115.00%**	**$1,150.00**
5.00%	110.00%	$1,100.00
2.00%	104.00%	$1,040.00
0.00%	**100.00%**	**$1,000.00**
-5.00%	100.00%	$1,000.00
-10.00%	**100.00%**	**$1,000.00**
-20.00%	90.00%	$900.00
-30.00%	80.00%	$800.00
-40.00%	70.00%	$700.00
-50.00%	60.00%	$600.00
-60.00%	50.00%	$500.00
-70.00%	40.00%	$400.00
-80.00%	30.00%	$300.00
-90.00%	20.00%	$200.00
-100.00%	10.00%	$100.00

SELECTED RISK CONSIDERATIONS

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the Reference Asset. These risks are explained in more detail in the section "Additional Risk Factors Specific to the 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 of the Notes

- **You May Receive Less Than the Principal Amount at Maturity** — Investors in the Notes could lose a substantial portion of their principal amount if there is a decline in the share price of the Reference Asset. You will lose 1% of the principal amount of the Notes for each 1% that the Final Price is less than the Initial Price by more than 10%.
- **The Notes Do Not Pay Interest and Your Return May Be Lower than the Return on a Conventional Debt Security of Comparable Maturity** — There will be no periodic interest payments on the Notes as there would be on a conventional fixed-rate or floating-rate debt security having the same 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.
- **Your Potential Payment at Maturity Is Limited** — The Notes will provide less opportunity to participate in the appreciation of the Reference Asset than an investment in a security linked to the Reference Asset providing full participation in the appreciation, because the payment at maturity will not exceed the Maximum Redemption Amount. Accordingly, your return on the Notes may be less than your return would be if you made an investment in a security directly linked to the positive performance of the Reference Asset.
- **Owning the Notes Is Not the Same as Owning Shares of the Reference Asset —** The return on the Notes may not reflect the return you would realize if you actually owned shares of the Reference Asset. For instance, as a holder of the Notes, you will not have voting rights, rights to receive cash dividends or other distributions, or any other rights that holders of shares of the Reference Asset would have. Further, because the payment at maturity will not exceed the Maximum Redemption Amount, your return on the Notes may be less than your return would be if you made an investment in a security directly linked to the positive performance of the Reference Asset.
- **The Payment at Maturity, if Any, is Based on the Price Performance of the Reference Asset, Which Will Not Reflect Any Interest or Other Payments on the Reference Asset Constituents** —While the Reference Asset generally invests in U.S. dollar-denominated fixed-income securities, the performance of the Reference Asset that is measured for purposes of the Notes will only reflect changes in the market prices of the securities held by the Reference Asset, and will not reflect any interest payments on those bonds. As a result, the performance of the Reference Asset that is measured for purposes of the Notes will be less, and perhaps significantly less, than the return that would be realized by a direct investment in the Reference Asset.
- **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 the amount due on the maturity date is dependent upon our ability to repay our obligations at that time. This will be the case even if the share price of the Reference Asset increases after the Trade Date. No assurance can be given as to what our financial condition will be at the maturity of the Notes.
- **You Will Not Have Any Rights to the Shares of the Reference Asset or Securities Held By the Reference Asset** — As a holder of the Notes, you will not have voting rights or rights to receive cash dividends or other distributions or other rights that holders of the shares of the Reference Asset or securities held by the Reference Asset would have. The Final Price will not reflect any dividends paid on the shares of the Reference Asset, and accordingly, any positive return on the Notes may be less than the potential positive return on the shares of the Reference Asset or those securities.

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 of the Notes 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 share price of the Reference Asset, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to the public of the underwriting discount, the referral fee 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, the referral fee or the hedging costs relating to the Notes. In addition to bid-ask spreads, the value of the Notes determined 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 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 the Reference Asset

- **An Investment in the Notes Is Subject to Concentration Risks —** The Reference Asset invests in U.S. Treasury bonds that are all obligations of the United States. As a result, the Reference Asset is concentrated in the performance of bonds issued by a single issuer. Although your investment in the Notes will not result in the ownership or other direct interest in the U.S. Treasury bonds held by the Reference Asset, the return on your investment in the Notes will be subject to certain risks similar to those associated with direct investment in U.S. Treasury bonds. This increases the risk that any downgrade of the credit ratings of the U.S. government from its current ratings, any increase in risk that the U.S. Treasury may default on its obligations by the market (whether for credit or legislative process reasons) or any other market events that create a decrease in demand for U.S. Treasury bonds, would significantly adversely affect the Reference Asset. In addition, to the extent that any such decrease in demand is more concentrated in the particular U.S. Treasury bond maturities owned by the Reference Asset, the Reference Asset could be severely affected.

- **An Investment in the Notes Is Subject to Interest Rate Risk —** During periods of very low or negative interest rates, the Reference Asset may be unable to maintain positive returns. Very low or negative interest rates may magnify this interest rate risk. Changing interest rates, including rates that fall below zero, may have unpredictable effects on markets, result in heightened market volatility and detract from the Reference Asset's performance to the extent the Reference Asset is exposed to these interest rates. Additionally, under certain market conditions in which interest rates are low and the market prices for portfolio securities have increased, the Reference Asset may have a very low or even negative yield. A low or negative yield would cause the Reference Asset to lose money in certain conditions and over certain time periods. An increase in interest rates will generally cause the value of securities held by the Reference Asset to decline, may lead to heightened volatility in the fixed-income markets and may adversely affect the liquidity of certain fixed-income investments, including those held by the Reference Asset. Because rates on certain floating rate debt securities typically reset only periodically, changes in prevailing interest rates (and particularly sudden and significant changes) can be expected to cause some fluctuations in the Reference Asset's net asset value, to the extent that it invests in floating rate securities.

- **The Reference Asset and its Underlying Index Are Different —** The performance of the Reference Asset may not exactly replicate the performance of its underlying index, because the Reference Asset will reflect transaction costs and fees that are not included in the calculation of its underlying index. It is also possible that the performance of the Reference Asset may not fully replicate or may in certain circumstances diverge significantly from the performance of its underlying index due to the temporary unavailability of certain securities in the secondary market, the performance of any derivative instruments contained in the Reference Asset, or due to other circumstances. The Reference Asset may use futures contracts, options, swap agreements, repurchase agreements and other instruments in seeking performance that corresponds to its underlying index and in managing cash flows.

  During periods of market volatility, securities held by the Reference Asset may be unavailable in the secondary market, market participants may be unable to calculate accurately the net asset value per share of the Reference Asset and the liquidity of the Reference Asset may be adversely affected. This kind of market volatility may also disrupt the ability of market participants to create and redeem shares of the Reference Asset. Further, market volatility may adversely affect, sometimes materially, the prices at which market participants are willing to buy and sell shares of the Reference Asset. As a result, under these circumstances, the market value of shares of the Reference Asset may vary substantially from its net asset value per share. For all of the foregoing reasons, the performance of the Reference Asset may not correlate with the performance of its underlying index as well as its net asset value per share, which could materially and adversely affect the value of the Notes in the secondary market and/or reduce the payments on the Notes.

- **Adjustments to the Reference Asset Could Adversely Affect the Notes** — The advisor of the Reference Asset is responsible for calculating and maintaining the Reference Asset. The advisor can add, delete or substitute the securities held by the Reference Asset. The advisor may make other methodological changes that could change the share price of the Reference Asset at any time. Consequently, any of these actions could adversely affect the amount payable at maturity and/or the market value of the Notes.

- **The Reference Asset May Change in Unexpected Ways** —The underlying index to which the Reference Asset is linked tends to have very limited public disclosure. The sponsor of the underlying index (the "Index Sponsor") retains discretion to make changes to the underlying index at any time. The lack of detailed information about the underlying index and how its constituents may change in the future creates the risk that the underlying index could change in the future to perform much differently from the way it would perform if such changes were not made. If the underlying index is changed in unexpected ways, the Reference Asset would similarly change to reflect the underlying index. The performance of the Reference Asset could be adversely affected in that case, which could adversely affect your investment in the Notes.

- **We Have No Affiliation with the Index Sponsor and Will Not Be Responsible for Any Actions Taken by the Index Sponsor** — The Index Sponsor is not our affiliate and will not be involved in the offering of the Notes in any way. Consequently, we have no control over the actions of the Index Sponsor, including any actions of the type that would require the calculation agent to adjust the payment to you at maturity. The Index Sponsor has no obligation of any sort with respect to the Notes. Thus, the Index Sponsor has no obligation to take your interests into consideration for any reason, including in taking any actions that might affect the value of the Notes. None of our proceeds from the issuance of the Notes will be delivered to the Index Sponsor.

- **We and Our Affiliates Do Not Have Any Affiliation with the Advisor and Are Not Responsible for its Public Disclosure of Information** — We and our affiliates are not affiliated with the Reference Asset's advisor in any way and have no ability to control or predict its actions, including any errors in or discontinuance of disclosure regarding its methods or policies relating to the Reference Asset. The advisor is not involved in the offering of the Notes in any way and has no obligation to consider your interests as an owner of the Notes in taking any actions relating to the Reference Asset that might affect the value of the Notes. Neither we nor any of our affiliates has independently verified the adequacy or accuracy of the information about the advisor or the Reference Asset contained in any public disclosure of information. You, as an investor in the Notes, should make your own investigation into the Reference Asset.
- **The Reference Asset Is Subject to Management Risks** — The Reference Asset is subject to management risk, which is the risk that the Reference Asset advisor’s investment strategy, the implementation of which is subject to a number of constraints, may not produce the intended results. For example, the Reference Asset advisor may invest a portion of the Reference Asset's assets in securities not included in the underlying index but which the Reference Asset advisor believes will help the Reference Asset track the underlying index.
- **The Payments on the Notes Are 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-Market Disruption Events" in the product prospectus supplement.

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 Asset or the securities held by the Reference Asset 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 prices of the Reference Asset, 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 Reference Asset or its advisor. 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 Asset. 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 price of the Reference Asset, and, therefore, the market value of the Notes.

INFORMATION REGARDING THE REFERENCE ASSET

The Reference Asset is 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 Securities and Exchange Commission (the “SEC”). Information provided to or filed with the SEC can be obtained through the SEC’s website at www.sec.gov. In addition, information regarding the Reference Asset may be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents.

The following information regarding the Reference Asset is derived from publicly available information.

We have not independently verified the accuracy or completeness of reports filed by the Reference Asset 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.

iShares® 20+ Year Treasury Bond ETF (“TLT”)

The TLT seeks to achieve a return that corresponds generally to the price and yield performance, before fees and expenses, of the ICE® U.S. Treasury 20+ Year Bond Index (the “Underlying Index”). The shares of the TLT are issued by the iShares® Series Trust, a registered investment company. BlackRock Fund Advisors (“BFA”) currently serves as investment advisor to the TLT. The TLT trades on the Nasdaq under the ticker symbol “TLT”.

Investment Objective and Strategy

In seeking to track the performance of the Underlying Index, the TLT employs a representative sampling strategy, which means that the TLT invests in a representative sample of securities that collectively has an investment profile similar to that of the Underlying Index. Unlike many investment companies, the TLT does not try to “beat” the Underlying Index, and does not seek temporary defensive positions when markets decline or appear overvalued. The securities selected are expected to have, in the aggregate, investment characteristics (based on factors such as market value and industry weightings), fundamental characteristics (such as return variability, duration, maturity, credit ratings and yield) and liquidity measures similar to those of the Underlying Index. The TLT may or may not hold all of the securities in the Underlying Index.

The TLT will invest at least 80% of its assets in the component securities of the Underlying Index, and the TLT will invest at least 90% of its assets in U.S. Treasury securities that BFA believes will help the TLT track the Underlying Index. The TLT will invest no more than 10% of its assets in futures, options and swaps contracts that BFA believes will help the TLT track the Underlying Index. Cash and cash equivalent investments associated with a derivative position will be treated as part of that position for the purposes of calculating the percentage of investments included in the Underlying Index.

The TLT may lend securities representing up to one-third of the value of the TLT’s total assets (including the value of any collateral received).

ICE® U.S. Treasury 20+ Year Bond Index

The Underlying Index is sponsored by ICE Data Indices, LLC (the “Index Sponsor”). The Underlying Index is market capitalization weighted and is designed to measure the performance of U.S. dollar-denominated, fixed-rate U.S. Treasuries with a minimum term to maturity greater than or equal to 20 years.

Eligibility Criteria and Inclusion Rules

Qualifying securities must be U.S. Treasury issued debt, be denominated in U.S. dollars, have a minimum term to maturity of greater than 20 years at the rebalancing date, have a fixed-rate coupon, and have $300 million or more of outstanding face value excluding amounts held by the Federal Reserve’s System Open Market Account. The amount outstanding for all qualifying securities is adjusted by subtracting the amounts held by the Federal Reserve’s System Open Market Account (the “adjusted amount outstanding”). The following securities are excluded from the Underlying Index: issues that have been stripped from coupon-paying bonds ("zero-coupon STRIPs"), inflation-linked securities, floating-rate notes, cash management bills, Treasury bills, and any government agency debt issued with or without a government guarantee.

Index Calculation

The total market value of the Underlying Index at any time is the sum of the market value of each constituent plus any intra-month cash from coupon payments or principal repayments and the weight for the constituent. The market value of a constituent is based on the adjusted amount outstanding. Cash that has accrued intra-month from interest and principal payments by the Underlying Index earns no reinvestment return during the month. Accumulated cash (from coupon and principal payments) are removed from the Underlying Index at month-end and reinvested pro rata across the entire Underlying Index. Calculations are performed daily, using bid prices at 3 p.m. Eastern Time. If the last business day of the month falls on a weekend or a public holiday in the U.S. market, prices from the previous business day are used. Return calculations are computed through the end of the calendar month.

Index Maintenance

The composition of the Underlying Index is rebalanced at each month-end. The Underlying Index is not adjusted for securities that become eligible or ineligible for inclusion during the month. Any such changes are incorporated when the Underlying Index is rebalanced, which is published on the third business day prior to the end of the month, and made effective from the first day of the following month.

Qualifying securities issued on or before the month-end rebalancing date may qualify for inclusion. When issued Treasuries are included in the rebalancing process with a price of $100 until replaced with an evaluated price as soon as available after auction day.

Historical Information

The graph below sets forth the information relating to the historical performance of the Reference Asset from January 1, 2013 to December 15, 2023. We obtained the information in the graph from Bloomberg Financial Markets, without independent investigation.

iShares® 20+ Year Treasury Bond ETF ("TLT")

PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.

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 March 3, 2022 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 Internal Revenue Service (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 Asset or the Notes (for example, upon the Reference Asset 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 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 20, 2023, 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 dated September 14, 2021.

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 of this document, we or one of our affiliates may also pay a referral fee to a selected dealer in the amount set forth on the cover page of this document. In addition, 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 three 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, the referral fee 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 RBCCM's underwriting discount, the referral fee 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 Asset. 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 Asset, 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, the referral fee 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 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.