

ROYAL BANK OF CANADA  
 Form 424B2  
 August 02, 2018

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July 2018  
 MSELN-347-C  
 Registration Statement No. 333-208507  
 Pricing Supplement  
 Dated July 31, 2018  
 Filed Pursuant to Rule 424(b)(2)

**STRUCTURED INVESTMENTS**

Opportunities in U.S. and International Equities

\$4,912,000 Dual Directional Trigger PLUS Based on the Performance of the VanEck Vectors® Gold Miners ETF due November 5, 2019

Trigger Performance Leveraged Upside Securities<sup>SM</sup>

Principal at Risk Securities

The Dual Directional Trigger PLUS, or “Trigger PLUS,” are senior unsecured obligations of Royal Bank of Canada, do not pay interest, do not guarantee any return of principal at maturity and have the terms described in the accompanying prospectus supplement and prospectus, as supplemented or modified by this document. At maturity, if the price of the underlying shares has increased, investors will receive the stated principal amount of their investment plus a return reflecting the leveraged upside performance of the underlying shares, subject to the maximum upside payment. If the price of the underlying shares has decreased by no more than 13.25%, investors will receive the stated principal amount plus an unleveraged positive return equal to the absolute value of the percentage decline, which will effectively be limited to a positive return of 13.25%. However, if the price of the underlying shares has decreased by more than 13.25%, investors will lose 1% of the stated principal amount for every 1% decline in the final share price from the initial share price. The Trigger PLUS are for investors who seek an equity-based return and who are willing to risk their principal and forgo current income and upside above the maximum upside payment in exchange for the leveraged return feature and the unleveraged absolute return feature, which applies to a limited range of positive and negative performance of the underlying shares. Investors may lose their entire initial investment in the Trigger PLUS. The Trigger PLUS are senior notes issued as part of Royal Bank of Canada’s Global Medium-Term Notes, Series G program. All payments on the Trigger PLUS are subject to the credit risk of Royal Bank of Canada.

**SUMMARY TERMS**

Issuer:	Royal Bank of Canada
Underlying shares:	Shares of the VanEck Vectors® Gold Miners ETF (Bloomberg symbol: “GDX”) (the “Fund”)
Aggregate principal amount:	\$4,912,000
Stated principal amount:	\$10 per Trigger PLUS
Issue price:	\$10 per Trigger PLUS
Pricing date:	July 31, 2018
Issue date:	August 3, 2018
Valuation date:	October 31, 2019, subject to adjustment for non-trading days and certain market disruption events
Maturity date:	November 5, 2019, subject to adjustment as described in “Additional Terms of the Trigger PLUS” below.
Payment at maturity:	If the final share price is greater than the initial share price: \$10 + (\$10 × leverage factor × fund return) However, in no event will payment at maturity exceed the maximum upside payment. If the final share price is less than or equal to the initial share price but is greater than or equal to the trigger

price:

$\$10 + (\$10 \times -1 \times \text{fund return})$

In this scenario, you will receive a 1% positive return on the Trigger PLUS for each 1% negative return on the underlying shares. For example, a -5% fund return will result in a +5% return on the Trigger PLUS.

However, in no event will this amount exceed the stated principal amount plus \$1.325.

If the final share price is less than the trigger price:

$\$10 + (\$10 \times \text{fund return})$

This amount will be less than \$8.675. You will lose at least 13.25% of the principal amount if the final share price is less than the trigger price.

Maximum upside payment: \$11.50 per Trigger PLUS (115% of the stated principal amount).

Leverage factor: 200%

Fund return:  $(\text{final share price} - \text{initial share price}) / \text{initial share price}$

Trigger price: \$18.46, which is 86.75% of the initial share price (rounded to two decimal places)

Initial share price: \$21.28, which was the closing price of one underlying share on the pricing date

Final share price: The closing price of one underlying share on the valuation date times the adjustment factor on that date 1.0, subject to adjustment in the event of certain events affecting the underlying shares, see “Additional Terms of the Trigger PLUS - Adjustment factor” below.

Adjustment factor: 78014G435 / US78014G4358

CUSIP/ ISIN: The Trigger PLUS will not be listed on any securities exchange.

Listing: RBC Capital Markets, LLC (“RBCCM”). See “Supplemental Information Regarding Plan of Distribution; Conflicts of Interest.”

Agent: Price to public Agent’s commissions Proceeds to issuer

Commissions and issue price: Per Trigger PLUS \$10.00 \$0.175<sup>(1)</sup> \$0.050<sup>(2)</sup> \$9.775

Total \$4,912,000 \$85,960 \$24,560 \$4,801,480

RBCCM, acting as agent for Royal Bank of Canada, will receive a fee of \$0.225 per \$10 stated principal amount and will pay to Morgan Stanley Wealth Management (“MSWM”) a fixed sales commission of \$0.175 for each Trigger PLUS that MSWM sells. See “Supplemental Information Regarding Plan of Distribution; Conflicts of Interest.”

<sup>(2)</sup> Of the amount per \$10 stated principal amount received by RBCCM, acting as agent for Royal Bank of Canada, RBCCM will pay MSWM a structuring fee of \$0.05 for each Trigger PLUS.

The initial estimated value of the Trigger PLUS as of the pricing date is \$9.6817 per \$10.00 Trigger PLUS, which is less than the price to public. The market value of the Trigger PLUS at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount.

An investment in the Trigger PLUS involves certain risks. See “Risk Factors” beginning on page 7 of this document, beginning on page S-1 of the accompanying prospectus supplement, and beginning on page 1 of the prospectus.

You should read this document together with the related prospectus supplement and prospectus, each of which can be accessed via the hyperlinks below, before you decide to invest.

Please also see “Additional Terms of the Trigger PLUS” in this document.

Prospectus Supplement dated January 8, 2016

Prospectus dated January 8, 2016

None of the Securities and Exchange Commission, any state securities commission or any other regulatory body has approved or disapproved of the Trigger PLUS or passed upon the adequacy or accuracy of this document. Any representation to the contrary is a criminal offense. The Trigger PLUS 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.

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Dual Directional Trigger PLUS Based on the Performance of the VanEck Vectors® Gold Miners ETF  
due November 5, 2019

Trigger Performance Leveraged Upside Securities<sup>SM</sup>

Principal at Risk Securities

Investment Summary

Trigger Performance Leveraged Upside Securities

Principal at Risk Securities

The Dual Directional Trigger PLUS Based on the Performance of the VanEck Vectors® Gold Miners ETF due  
November 5, 2019 (the “Trigger PLUS”) can be used:

§ As an alternative to direct exposure to the underlying shares that enhances returns for any positive performance of  
§ the underlying shares, subject to the maximum upside payment.

§ To obtain an unleveraged positive return for a limited range of negative performance of the underlying shares.

§ To potentially outperform the underlying shares in a moderately bullish or moderately bearish scenario.

The Trigger PLUS are exposed on a 1:1 basis to the full negative performance of the underlying shares if the final  
share price is less than the trigger price.

Maturity: Approximately 15 months

Leverage factor: 200% (applicable only if the final share price is greater than the initial share price)

Trigger price: 86.75% of the initial share price

Maximum upside payment at maturity: \$11.50 per Trigger PLUS (115% of the stated principal amount).

Minimum payment at maturity: None. Investors may lose their entire initial investment in the Trigger PLUS.

Coupon: None

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Principal at Risk Securities

#### Key Investment Rationale

The Trigger PLUS offer leveraged exposure to the positive performance of the underlying shares, subject to the maximum upside payment, and an unleveraged positive return based on the absolute value of a limited range of negative percentage changes of the underlying shares. At maturity, if the price of the underlying shares has increased, investors will receive the stated principal amount of their investment plus a return reflecting the leveraged upside performance of the underlying shares, subject to the maximum upside payment of \$11.50 per Trigger PLUS. If the price of the underlying shares has decreased by no more than 13.25%, investors will receive the stated principal amount plus an unleveraged positive return equal to the absolute value of the percentage decline, which will effectively be limited to a positive return of 13.25%. However, if the price of the underlying shares has decreased by more than 13.25%, investors will lose 1% of the principal amount for every 1% decline in the final share price from the initial share price. Investors may lose their entire initial investment in the Trigger PLUS.

Leveraged  
Upside  
Performance

The Trigger PLUS offer investors an opportunity to capture enhanced returns relative to a direct investment in the underlying shares, subject to the maximum upside payment.

Absolute  
Return  
Feature

The Trigger PLUS enable investors to obtain an unleveraged positive return if the final share price is less than or equal to the initial share price but is greater than or equal to the trigger price.

Upside  
Scenario if  
the  
Underlying  
Shares  
Appreciate

The final share price is greater than the initial share price and, at maturity, we will pay the stated principal amount of \$10 plus 200% of the fund return, subject to the maximum upside payment of \$11.50 per Trigger PLUS (115% of the stated principal amount).

Absolute  
Return  
Scenario

The final share price is less than or equal to the initial share price but is greater than or equal to the trigger price, which is 86.75% of the initial share price. In this case, you receive a 1% positive return on the Trigger PLUS for each 1% decline in the price of the underlying shares. For example, if the final share price is 10% less than the initial share price, the Trigger PLUS will provide a total positive return of 10% at maturity. The maximum return you may receive in this scenario is a positive 13.25% return at maturity.

Downside  
Scenario

The final share price is less than the trigger price and, at maturity, we will pay less than the stated principal amount by an amount that is proportionate to the percentage decrease in the price of the underlying shares from the initial share price. This amount will be less than \$8.675 per Trigger PLUS. For example, if the final share price is 70% less than the initial share price, the Trigger PLUS will be redeemed at maturity for a loss of 70% of principal at \$3 per Trigger PLUS, or 30% of the stated principal amount. There is no minimum payment at maturity on the Trigger PLUS, and you could lose your entire investment.

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#### Additional Information

You should read this document together with the prospectus dated January 8, 2016, as supplemented by the prospectus supplement dated January 8, 2016, relating to our Senior Global Medium-Term Notes, Series G, of which the Trigger PLUS are a part. This document, together with these documents, contains the terms of the Trigger PLUS and supersedes all other prior or contemporaneous oral statements as well as any other written materials, including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, brochures or other educational materials of ours.

You should rely only on the information provided or incorporated by reference in this document, the prospectus and the prospectus supplement. We have not authorized anyone else to provide you with different information, and we take no responsibility for any other information that others may give you. We and Morgan Stanley Wealth Management are offering to sell the Trigger PLUS and seeking offers to buy the Trigger PLUS only in jurisdictions where it is lawful to do so. The information contained in this document and the accompanying prospectus supplement and prospectus is current only as of their respective dates.

If the information in this document differs from the information contained in the prospectus supplement or the prospectus, you should rely on the information in this document.

You should carefully consider, among other things, the matters set forth in “Risk Factors” in this document and the accompanying prospectus supplement, as the Trigger PLUS involve risks not associated with conventional debt securities. We urge you to consult your investment, legal, tax, accounting and other advisers before you invest in the Trigger PLUS.

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

·Prospectus dated January 8, 2016:

<http://www.sec.gov/Archives/edgar/data/1000275/000121465916008810/j18160424b3.htm>

·Prospectus Supplement dated January 8, 2016:

<http://www.sec.gov/Archives/edgar/data/1000275/000121465916008811/p14150424b3.htm>

Our Central Index Key, or CIK, on the SEC website is 1000275.

Please see the section “Documents Incorporated by Reference” on page i of the above prospectus for a description of our filings with the SEC that are incorporated by reference therein.

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How the Trigger PLUS Work

Payoff Diagram

The payoff diagram below illustrates the payment at maturity on the Trigger PLUS for a range of hypothetical percentage changes in the closing price of the underlying shares. The graph is based on the following terms:

Stated principal amount: \$10 per Trigger PLUS

Leverage factor: 200% (applicable only if the final share price is greater than the initial share price)

Trigger price: 86.75% of the initial share price

Maximum upside payment: \$11.50 per Trigger PLUS (115% of the stated principal amount).

Minimum payment at maturity: None

Trigger PLUS Payoff Diagram

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How it works

Upside Scenario if the Underlying Shares Appreciate. If the final share price is greater than the initial share price, then investors would receive the \$10 stated principal amount plus a return reflecting 200% of the appreciation of the § underlying shares over the term of the Trigger PLUS, subject to the maximum upside payment. Under the terms of the Trigger PLUS, an investor would realize the maximum upside payment at maturity at a final share price of 107.50% of the initial share price.

§ If the price of the underlying shares appreciates by 3%, the investor would receive a 6% return, or \$10.60 per Trigger PLUS.

§ If the underlying shares appreciate by 7.50% or more, the investor would receive only the maximum upside payment of \$11.50 per Trigger PLUS, or 115% of the stated principal amount.

§ Absolute Return Scenario. If the final share price is less than or equal to the initial share price but is greater than or equal to the trigger price of 86.75% of the initial share price, the investor would receive a 1% positive return on the Trigger PLUS for each 1% decline in the underlying shares.

§ If the price of the underlying shares depreciates by 10%, the investor would receive a 10% return, or \$11.00 per Trigger PLUS.

§ The maximum return you may receive in this scenario is a positive 13.25% return at maturity.

§ Downside Scenario. If the final share price is less than the trigger price, the investor would receive an amount that is less than the \$10 stated principal amount, based on a 1% loss of principal for each 1% decline in the underlying § shares. This amount will be less than \$8.675 per Trigger PLUS. There is no minimum payment at maturity on the Trigger PLUS.

§ If the price of the underlying shares depreciates by 30%, the investor would lose 30% of the investor's principal and receive only \$7.00 per Trigger PLUS at maturity, or 70% of the stated principal amount.



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#### Risk Factors

An investment in the Trigger PLUS is subject to the risks described below, as well as the risks described under “Risk Factors” in the accompanying prospectus supplement and prospectus. Investors in the Trigger PLUS are also exposed to further risks related to the issuer of the Trigger PLUS, Royal Bank of Canada, which are described in Royal Bank of Canada’s annual report on Form 40-F for its most recently completed fiscal year, filed with the SEC and incorporated by reference herein. See the categories of risks, identified and disclosed in the management’s discussion and analysis of financial condition and results of operations included in the annual report on Form 40-F. This section (and the management’s discussion and analysis section of the annual report on Form 40-F) describes the most significant risks relating to the Trigger PLUS. You should carefully consider whether the Trigger PLUS are suited to your particular circumstances.

The Trigger PLUS do not pay interest or guarantee return of principal. The terms of the Trigger PLUS differ from those of ordinary debt securities in that the Trigger PLUS do not pay interest or guarantee the payment of any principal amount at maturity. If the final share price is less than the trigger price (which is 86.75% of the initial share price), the absolute return feature will no longer be available and the payout at maturity will be an amount in cash that is at least 13.25% less than the \$10 stated principal amount of each Trigger PLUS. In this case, you will lose a significant portion of your principal amount equal to the percentage decrease in the price of the underlying shares from the initial share price to the final share price. There is no minimum payment at maturity on the Trigger PLUS, and, accordingly, you could lose your entire initial investment in the Trigger PLUS.

The appreciation potential of the Trigger PLUS is limited by the maximum upside payment. The appreciation potential of the Trigger PLUS reflecting the positive performance of the underlying shares is limited by the maximum upside payment of \$11.50 per Trigger PLUS, or 115% of the stated principal amount. Although the § leverage factor provides 200% exposure to any increase in the price of the underlying shares as of the valuation date above the initial share price, because the payment at maturity will be limited to 115% of the stated principal amount for the Trigger PLUS, any increase in the final share price over the initial share price by more than 7.50% will not further increase the return on the Trigger PLUS.

In addition, because investors will receive the stated principal amount plus an unleveraged positive return equal to the absolute value of the percentage decline in the price of the underlying shares only if the final share price is greater than or equal to the trigger price, the maximum return you may receive in this scenario is a positive 13.25% return at maturity.

The market price of the Trigger PLUS will be influenced by many unpredictable factors. Many factors will § influence the value of the Trigger PLUS in the secondary market and the price at which RBCCM may be willing to purchase or sell the Trigger PLUS in the secondary market, including:

§ the trading price and volatility (frequency and magnitude of changes in value) of the underlying shares;  
§ dividend yields on the underlying shares and on the securities represented by the NYSE Arca Gold Miners Index (the § “underlying index”);

§ market interest rates;

§ our creditworthiness, as represented by our credit ratings or as otherwise perceived in the market;

§ time remaining to maturity;

§ geopolitical conditions and economic, financial, political, regulatory or judicial events that affect the underlying § shares or securities markets generally and which may affect the price of the underlying shares;

§ the occurrence of certain events affecting the underlying shares that may or may not require an adjustment to the § adjustment factor; and

§ exchange rates between the U.S. dollar and the currencies in which the non-U.S. securities held by the § underlying shares are traded.

The price of the underlying shares may be volatile, and you should not take the historical prices of the underlying shares as an indication of future performance. See “Information About the VanEck Vector® Gold Miners ETF” below.

You may receive less, and possibly significantly less, than the stated principal amount per Trigger PLUS if you sell your Trigger PLUS prior to maturity.

The Trigger PLUS are subject to the credit risk of Royal Bank of Canada, and any actual or anticipated changes to its credit ratings or credit spreads may adversely affect the market value of the Trigger PLUS. You are dependent on Royal

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Bank of Canada's ability to pay all amounts due on the Trigger PLUS at maturity and therefore you are subject to the credit risk of Royal Bank of Canada. If Royal Bank of Canada defaults on its obligations under the Trigger PLUS, your investment would be at risk and you could lose some or all of your investment. As a result, the market value of the Trigger PLUS prior to maturity will be affected by changes in the market's view of Royal Bank of Canada's creditworthiness. Any actual or anticipated decline in Royal Bank of Canada's credit ratings or increase in the credit spreads charged by the market for taking Royal Bank of Canada credit risk is likely to adversely affect the market value of the Trigger PLUS.

§ The initial estimated value of the Trigger PLUS is less than the price to the public. The initial estimated value that is set forth on the cover page of this document does not represent a minimum price at which we, RBCCM or any of our affiliates would be willing to purchase the Trigger PLUS in any secondary market (if any exists) at any time. If you attempt to sell the Trigger PLUS 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 price of the underlying shares, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to the public of the agent's commissions and the estimated costs relating to our hedging of the Trigger PLUS. These factors, together with various credit, market and economic factors over the term of the Trigger PLUS, are expected to reduce the price at which you may be able to sell the Trigger PLUS in any secondary market and will affect the value of the Trigger PLUS 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 Trigger PLUS prior to maturity may be less than your original purchase price, as any such sale price would not be expected to include the agent's commissions and the hedging costs relating to the Trigger PLUS. In addition to bid-ask spreads, the value of the Trigger PLUS 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 Trigger PLUS and determine the initial estimated value. As a result, the secondary price will be less than if the internal funding rate was used. The Trigger PLUS are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Trigger PLUS to maturity.

Our initial estimated value of the Trigger PLUS is an estimate only, calculated as of the pricing date. The initial estimated value of the Trigger PLUS is based on the value of our obligation to make the payments on the Trigger PLUS, together with the mid-market value of the derivative embedded in the terms of the Trigger PLUS. See § "Structuring the Trigger PLUS" 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 Trigger PLUS. These assumptions are based on certain forecasts about future events, which may prove to be incorrect. Other entities may value the Trigger PLUS or similar securities at a price that is significantly different than we do.

The value of the Trigger PLUS at any time after the pricing 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 Trigger PLUS in any secondary market, if any, should be expected to differ materially from the initial estimated value of your Trigger PLUS.

§ The Trigger PLUS will not be listed on any securities exchange and secondary trading may be limited. The Trigger PLUS will not be listed on any securities exchange. Therefore, there may be little or no secondary market for the Trigger PLUS. RBCCM may, but is not obligated to, make a market in the Trigger PLUS, and, if it chooses to do so at any time, it may cease doing so. When it does make a market, it will generally do so for transactions of routine secondary market size at prices based on its estimated of the current value of the Trigger PLUS, taking into account its bid/offer spread, our credit spreads, market volatility, the notional size of the proposed sale, the cost of unwinding any related hedging positions, the time remaining to maturity and the likelihood that it will be able to resell the Trigger PLUS. Even if there is a secondary market, it may not provide enough liquidity to allow you to trade or sell the Trigger PLUS

easily. Because we do not expect that other broker-dealers will participate significantly in the secondary market for the Trigger PLUS, the price at which you may be able to trade your Trigger PLUS is likely to depend on the price, if any, at which RBCCM is willing to transact. If, at any time, RBCCM were not to make a market in the Trigger PLUS, it is likely that there would be no secondary market for the Trigger PLUS. Accordingly, you should be willing to hold your Trigger PLUS to maturity.

The amount payable on the Trigger PLUS is not linked to the price of the underlying shares at any time other than the valuation date. The final share price will be based on the closing price of the underlying shares on the valuation date, subject to adjustment for non-business days and certain market disruption events. Even if the price of the underlying shares appreciates, or decreases by no more than 13.25%, prior to the valuation date but then decreases on the valuation date to a price that is less than the trigger price, the payment at maturity will be less, and may be significantly less than it would have been had the payment at maturity been linked to the price of the underlying shares prior to that decrease. Although the actual price of the underlying shares

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on the maturity date or at other times during the term of the Trigger PLUS may be higher than the final share price, the payment at maturity will be based solely on the closing price of the underlying shares on the valuation date.

Adjustments to the Fund or the underlying index could adversely affect the value of the Trigger PLUS. Van Eck Associates Corporation, as the investment advisor of the Fund (the “investment advisor”), and NYSE Arca, as the sponsor of the underlying index (“Van Eck” or the “index sponsor”), may add, delete or substitute the shares held by the § Fund or the securities constituting the underlying index, as applicable, or make other methodological changes. In addition, the investment advisor or the index sponsor may discontinue or suspend maintenance of the Fund or the underlying index, as applicable, at any time. Any of these actions could affect the value of and the return on the Trigger PLUS.

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 an affiliate of ours and will not be involved in the offering of the Trigger PLUS 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 Trigger PLUS. 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 Trigger PLUS. None of our proceeds from the issuance of the Trigger PLUS will be delivered to the index sponsor.

We and our affiliates do not have any affiliation with the Fund’s investment advisor and are not responsible for its public disclosure of information. We and our affiliates are not affiliated with the investment 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 Fund. The investment advisor is not involved in the offering of the Trigger PLUS § in any way and has no obligation to consider your interests as an owner of the Trigger PLUS in taking any actions relating to the underlying shares that might affect the value of the Trigger PLUS. Neither we nor any of our affiliates has independently verified the adequacy or accuracy of the information about the investment advisor or the Fund contained in any public disclosure of information. You, as an investor in the Trigger PLUS, should make your own investigation into the underlying shares.

Investing in the Trigger PLUS is not equivalent to investing in the underlying shares. Investing in the Trigger PLUS § is not equivalent to investing in the Fund or its component securities. Investors in the Trigger PLUS will not have voting rights or rights to receive dividends or other distributions or any other rights with respect to the underlying shares or the securities that constitute the Fund.

The underlying shares and the underlying index are different and the performance of the underlying shares may not correlate with that of the underlying index. The performance of the underlying shares may not exactly replicate the performance of the underlying index because the underlying shares will reflect transaction costs and fees that are not § included in the calculation of the underlying index. It is also possible that the underlying shares may not fully replicate or may in certain circumstances diverge significantly from the performance of the underlying index due to the temporary unavailability of certain securities in the secondary market, the performance of any derivative instruments contained in this fund, differences in trading hours between the underlying shares and the underlying index or due to other circumstances.

The Fund is subject to management risks. The Fund is not managed according to traditional methods of “active” investment management, which involve the buying and selling of securities based on economic, financial and market analysis and investment judgment. Instead, the Fund, utilizing a “passive” or indexing investment approach, attempts § to approximate the investment performance of its underlying index by investing in a portfolio of securities that generally reflects its underlying index. Therefore, unless a specific security is removed from its underlying index, the Fund generally would not sell a security because the security’s issuer was in financial trouble. In addition, the Fund is subject to the risk that the investment strategy of its investment advisor may not produce the intended results.

§ Historical prices of the underlying shares should not be taken as an indication of their future prices during the term of the Trigger PLUS. The trading prices of the equity securities comprising the Fund will determine the price of the

underlying shares at any given time. As a result, it is impossible to predict whether the price of the underlying shares will rise or fall. Trading prices of the equity securities comprising the Fund will be influenced by complex and interrelated political, economic, financial and other factors.

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There are risks associated with investments in Trigger PLUS linked to the value of foreign equity securities. The Fund includes equity securities issued by non-U.S. companies. An investment in Trigger PLUS linked to the value of non-U.S. equity securities involves particular risks. Non-U.S. securities markets may be more volatile than U.S. securities markets, and market developments may affect non-U.S. securities markets differently from the U.S. securities markets. Direct or indirect government intervention to stabilize these non-U.S. securities markets, as well as cross shareholdings among non-U.S. companies, may affect trading prices and volumes in those markets. Also, there is generally less publicly available information in the United States about non-U.S. companies than about those companies that are subject to the reporting requirements of the SEC, and non-U.S. companies are subject to accounting, disclosure, auditing and financial reporting standards and requirements that differ from those applicable to U.S. reporting companies.

Securities prices in non-U.S. countries are subject to political, economic, financial and social factors that may be unique to the particular country. These factors, which could negatively affect the non-U.S. securities markets, include the possibility of recent or future changes in the economic and fiscal policies of non-U.S. governments, the possible imposition of, or changes in, currency exchange laws or other non-U.S. laws or restrictions applicable to non-U.S. companies or investments in non-U.S. equity securities, the possibility of fluctuations in the rate of exchange between currencies, the possibility of outbreaks of hostility and political instability, and the possibility of natural disaster or adverse public health developments in the region. Moreover, the economies of certain foreign countries may differ favorably or unfavorably from the U.S. economy in important respects, such as growth of gross national product, rate of inflation, trade surpluses or deficits, capital reinvestment, resources and self-sufficiency.

The Trigger PLUS are subject to exchange rate risk. Because some securities held by the Fund are traded in currencies other than U.S. dollars, and the Trigger PLUS are denominated in U.S. dollars, the amount payable on the Trigger PLUS at maturity may be exposed to fluctuations in the exchange rate between the U.S. dollar and the currencies in which those securities are denominated. These changes in exchange rates may reflect changes in the applicable non-U.S. economies that in turn may affect the payments on the Trigger PLUS. An investor's net exposure will depend on the extent to which the currencies in which the relevant securities are denominated either strengthen or weaken against the U.S. dollar and the relative weight of each security. If, taking into account such weighting, the U.S. dollar strengthens against the currencies in which the relevant securities are denominated, the value of those securities may be adversely affected and the price of the underlying shares may be adversely affected as well. In turn, the payments on the Trigger PLUS may be adversely affected. Of particular importance to potential exchange rate risk are existing and expected rates of inflation, existing and expected interest rate levels, the balance of payments between countries and the extent of government surpluses or deficits in the countries represented in the underlying index.

An investment in the Trigger PLUS is subject to risks associated with the gold and silver mining industries. All or substantially all of the stocks held by the Fund are issued by gold or silver mining companies. As a result, the stocks that will determine the performance of the Fund are concentrated in one sector and therefore may be subject to increased price volatility. Although an investment in the Trigger PLUS will not give holders any ownership or other direct interests in the stocks held by the Fund, the return on the Trigger PLUS will be subject to certain risks associated with a direct equity investment in gold or silver mining companies.

In addition, these companies are highly dependent on the price of gold or silver, as applicable. These prices fluctuate widely and may be affected by numerous factors. Factors affecting gold prices include economic factors, including, among other things, the structure of and confidence in the global monetary system, expectations of the future rate of inflation, the relative strength of, and confidence in, the U.S. dollar (the currency in which the price of gold is generally quoted), interest rates and gold borrowing and lending rates, and global or regional economic, financial, political, regulatory, judicial or other events. Gold prices may also be affected by industry factors such as industrial and jewelry demand, lending, sales and purchases of gold by the official sector, including central banks and other governmental agencies and multilateral institutions which hold gold, levels of gold production and production costs,

and short-term changes in supply and demand because of trading activities in the gold market. Factors affecting silver prices include general economic trends, technical developments, substitution issues and regulation, as well as specific factors including industrial and jewelry demand, expectations with respect to the rate of inflation, the relative strength of the U.S. dollar (the currency in which the price of silver is generally quoted) and other currencies, interest rates, central bank sales, forward sales by producers, global or regional political or economic events, and production costs and disruptions in major silver producing countries such as Mexico and Peru. The supply of silver consists of a combination of new mine production and existing stocks of bullion and fabricated silver held by governments, public and private financial institutions, industrial organizations and private individuals. In addition, the price of silver has on occasion been subject to very rapid short-term changes due to speculative activities. From time to time, above-ground inventories of silver may also influence the market. On the other hand, the Fund reflects

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the performance of shares of gold and silver mining companies and not gold bullion or silver bullion. The Fund may under- or over-perform gold bullion and/or silver bullion over the term of the Trigger PLUS.

Hedging and trading activity by us and our subsidiaries could potentially adversely affect the value of the Trigger PLUS. One or more of our subsidiaries and/or third party dealers expect to carry out hedging activities related to the Trigger PLUS (and possibly to other instruments linked to the Fund or its component securities), including trading in those securities as well as in other related instruments. Some of our subsidiaries also trade those securities and other financial instruments related to the Fund on a regular basis as part of their general broker-dealer and other § businesses. Any of these hedging or trading activities on or prior to the pricing date could have increased the initial share price and, therefore, could have increased the price at or above which the underlying shares must close on the valuation date so that investors do not suffer a loss on their initial investment in the Trigger PLUS. Additionally, such hedging or trading activities during the term of the Trigger PLUS, including on the valuation date, could adversely affect the closing price of the underlying shares on the valuation date and, accordingly, the amount of cash an investor will receive at maturity, if any.

Our business activities may create conflicts of interest. We and our affiliates may engage in trading activities related to the underlying shares or the securities held by the Fund that are not for the account of holders of the Trigger PLUS § or on their behalf. These trading activities may present a conflict between the holders' interest in the Trigger PLUS and the interests we and our affiliates will have in proprietary accounts, in facilitating transactions, including options and other derivatives transactions, for our customers and in accounts under our management. These trading activities could be adverse to the interests of the holders of the Trigger PLUS.

We and our affiliates may presently or from time to time engage in business with one or more of the issuers of the securities held by the Fund. This business may include extending loans to, or making equity investments in, such companies or providing advisory services to such companies, including merger and acquisition advisory services. In the course of business, we and our affiliates may acquire non-public information relating to these companies, which we have no obligation to disclose to you, and, in addition, one or more of our affiliates may publish research reports about these companies. Neither we nor the agent have made any independent investigation regarding any matters whatsoever relating to the issuers of the securities held by the Fund.

Moreover, we and our affiliates may have published, and in the future expect to publish, research reports with respect to the underlying shares or the securities held by the Fund. 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 Trigger PLUS. Any of these activities by us or one or more of our affiliates may affect the price of the underlying shares and, therefore, the market value of the Trigger PLUS.

The calculation agent, which is a subsidiary of the issuer, will make determinations with respect to the Trigger PLUS, which may create a conflict of interest. Our wholly owned subsidiary, RBCCM, will serve as the calculation agent. As calculation agent, RBCCM has determined the initial share price and the trigger price, and will determine the final share price and the fund return, and will calculate the amount of cash, if any, you will receive at maturity. § Moreover, certain determinations made by RBCCM, in its capacity as calculation agent, may require it to exercise discretion and make subjective judgments, such as with respect to the occurrence or non-occurrence of market disruption events and the selection of a successor fund or the calculation of the final share price in the event of a market disruption event or discontinuance of the Fund. These potentially subjective determinations may adversely affect the payout to you at maturity, if any. For further information regarding these types of determinations see "Additional Terms of the Trigger PLUS" below.

The antidilution adjustments that the calculation agent is required to make do not cover every event that could affect the underlying shares. RBCCM, as calculation agent, will adjust the amount payable at maturity for certain events § affecting the underlying shares. However, the calculation agent will not make an adjustment for every event that could affect the underlying shares. If an event occurs that does not require the calculation agent to adjust the amount payable at maturity, the market price of the Trigger PLUS may be materially and adversely affected.

Significant aspects of the tax treatment of the Trigger PLUS are uncertain. The tax treatment of an investment in the Trigger PLUS is uncertain. We do not plan to request a ruling from the Internal Revenue Service or from the Canada § Revenue Agency regarding the tax treatment of an investment in the Trigger PLUS, and the Internal Revenue Service, the Canada Revenue Agency or a court may not agree with the tax treatment described in this document. The Internal Revenue Service has issued a notice indicating that it and the U.S. Treasury Department are actively considering whether, among other issues, a holder should be required to accrue interest over the term of an instrument such as the Trigger

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PLUS even though that holder will not receive any payments with respect to the Trigger PLUS until maturity and whether all or part of the gain a holder may recognize upon sale, exchange or maturity of an instrument such as the Trigger PLUS should be treated as ordinary income. The outcome of this process is uncertain and could apply on a retroactive basis.

Please read carefully the sections entitled “Canadian Federal Income Tax Consequences” and “Supplemental Discussion of U.S. Federal Income Tax Consequences” in this document, the section entitled “Tax Consequences” in the accompanying prospectus and the section entitled “Certain Income Tax Consequences” in the accompanying prospectus supplement. You should consult your tax advisor about your own tax situation.

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Additional Terms of the Trigger PLUS

Please read this information in conjunction with the summary terms on the front cover of this document.

#### Additional Provisions

Adjustment factor:	<p>1.0, subject to adjustment. If the underlying shares are subject to a stock split or reverse stock split, then once such split has become effective, the adjustment factor will be adjusted to equal the product of the prior adjustment factor and the number of shares issued in such stock split or reverse stock split with respect to one underlying share. No such adjustment to the adjustment factor will be required unless such adjustment would require a change of at least 0.1% in the amount being adjusted as then in effect. Any number so adjusted will be rounded to the nearest one hundred-thousandth with five one-millionths being rounded upward.</p> <p>The closing price for one share of the underlying shares (or one unit of any other security for which a closing price must be determined) on any trading day means:</p> <ul style="list-style-type: none"><li>· if the underlying shares (or any such other security) are listed or admitted to trading on a national securities exchange, the last reported sale price, regular way, of the principal trading session on such day on the principal U.S. securities exchange registered under the Exchange Act on which the underlying shares (or any such other security) are listed or admitted to trading, or</li><li>· if the underlying shares (or any such other security) are not listed or admitted to trading on any national securities exchange but are included in the OTC Bulletin Board Service (the OTC Bulletin Board) operated by the Financial Industry Regulatory Authority (FINRA), the last reported sale price of the principal trading session on the OTC Bulletin Board on such day.</li></ul>
Closing price of the underlying shares:	<p>If the underlying shares (or any such other security) are listed or admitted to trading on any national securities exchange but the last reported sale price, as applicable, is not available pursuant to the preceding sentence, then the closing price for one share of the underlying shares (or one unit of any such other security) on any trading day will mean the last reported sale price of the principal trading session on the over-the-counter market or the OTC Bulletin Board on such day.</p> <p>If the last reported sale price for the underlying shares (or any such other security) is not available pursuant to either of the two preceding sentences, then the closing price for any trading day will be the mean, as determined by the calculation agent, of the firm bid prices for the underlying shares (or any such other security) obtained from as many recognized dealers in such security, but not exceeding three, as will make such bid prices available to the calculation agent. Bids of the Issuer or any of its affiliates may be included in the calculation of such mean, but only to the extent that any such bid is the highest of the bids obtained. The term “OTC Bulletin Board” will include any successor service thereto.</p>
Postponement of the valuation date:	<p>If the valuation date occurs on a day that is not a trading day or on a day on which the calculation agent has determined that a market disruption event (as defined below) has occurred or is continuing, then the valuation date will be postponed until the next succeeding trading day on which the calculation agent determines that a market disruption event does not occur or is not continuing; provided that in no event will the valuation date be postponed by more than five trading days. If the valuation date is postponed by five trading days, and a market disruption event occurs or is continuing on that fifth trading day, then the closing price of the underlying shares will nevertheless</p>

be determined as set forth above under “—Closing price of the underlying shares.” If the valuation date is postponed, then the maturity date will be postponed by an equal number of business days. No interest shall accrue or be payable as a result of such postponement.

Market disruption  
events:

A market disruption event, as determined by the calculation agent in its sole discretion,

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means the occurrence or existence of any of the following events:

- a suspension, absence or material limitation of trading in the underlying shares on their primary market for more than two hours of trading or during the one-half hour before the close of trading in that market, as determined by the calculation agent in its sole discretion;
- a suspension, absence or material limitation of trading in option or futures contracts relating to the underlying shares, if available, in the primary market for those contracts for more than two hours of trading or during the one-half hour before the close of trading in that market, as determined by the calculation agent in its sole discretion;
- the underlying shares do not trade on the NYSE Arca, the Nasdaq Global Market or what was the primary market for the underlying shares, as determined by the calculation agent in its sole discretion; or
- any other event, if the calculation agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates or hedge counterparties to unwind all or a material portion of a hedge with respect to the Trigger PLUS that such party or its respective hedge counterparties have effected or may effect as described below under “Use of Proceeds and Hedging.”

The following events will not be market disruption events:

- a limitation on the hours or number of days of trading in the underlying shares on their primary market, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- a decision to permanently discontinue trading in the option or futures contracts relating to the underlying shares.

For this purpose, a “suspension, absence or material limitation of trading” in the primary securities market on which option or futures contracts relating to the underlying shares, if available, are traded will not include any time when that market is itself closed for trading under ordinary circumstances. In contrast, a suspension or limitation of trading in option or futures contracts relating to the underlying shares, if available, in the primary market for those contracts, by reason of any of:

- a price change exceeding limits set by that market;
- an imbalance of orders relating to those contracts; or
- a disparity in bid and asked quotes relating to those contracts;

will constitute a suspension or material limitation of trading in option or futures contracts, as the case may be, relating to the underlying shares in the primary market for those contracts.

If the Fund’s sponsor discontinues operation of the Fund and that sponsor or another entity establishes or designates a successor or substitute fund that the calculation agent determines, in its sole discretion, to be comparable to the Fund (the successor fund), then the calculation agent will substitute the successor fund for the Fund and determine the closing price of the underlying shares on the valuation date as described above under “—Closing price of the underlying shares.”

Discontinuation  
of the Fund:

If the Fund’s sponsor discontinues operation of the Fund and:

- the calculation agent does not select a successor fund, or
- the successor fund is no longer traded or listed on any of the relevant trading days,

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the calculation agent will compute a substitute price for the underlying shares in accordance with the procedures last used to calculate the price of the underlying shares before any discontinuation but using only those securities that were held by the applicable fund prior to such discontinuation. If a successor fund is selected or the calculation agent calculates a price as a substitute for the underlying shares as described below, the successor fund or price will be used as a substitute for the underlying shares for all purposes going forward, including for purposes of determining whether a market disruption event exists, even if the Fund's sponsor elects to re-establish the Fund, unless the calculation agent in its sole discretion decides to use the re-established Fund.

If the Fund's sponsor discontinues operation of the Fund before the valuation date and the calculation agent determines that no successor fund is available at that time, then on each trading day until the earlier to occur of:

- the determination of the final share price, or
- a determination by the calculation agent that a successor fund is available,

the calculation agent will determine the price that would be used in computing the closing price of the underlying shares as described in the preceding paragraph as if that day were a trading day. The calculation agent will cause notice of each price to be published not less often than once each month in The Wall Street Journal, another newspaper of general circulation or a website or webpage available to holders of the Trigger PLUS, and arrange for information with respect to these prices to be made available by telephone.

Notwithstanding these alternative arrangements, discontinuation of the operation of the Fund would be expected to adversely affect the value of, liquidity of and trading in the Trigger PLUS.

**Business day:** banking institutions in The City of New York generally are authorized or obligated by law, regulation or executive order to close.

A trading day means any day on which the exchange and each related exchange are scheduled to be open for their respective regular trading sessions.

**Trading day:** The exchange means the primary organized exchange or quotation system for trading the underlying shares, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in such shares has temporarily relocated (provided that the calculation agent has determined that there is comparable liquidity relative to such shares on such temporary substitute exchange or quotation system as on the original exchange).

A related exchange means each exchange or quotation system on which futures or options contracts relating to the underlying shares are traded, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in the futures or options contracts relating to the underlying shares has temporarily relocated (provided that the calculation agent has determined that there is comparable liquidity relative to the futures or options contracts relating to the underlying shares on that temporary substitute exchange or quotation system as on the original related exchange).

**Default interest upon acceleration:** In the event we fail to make a payment on the maturity date, any overdue payment in respect of such payment on the Trigger PLUS will bear interest until the date upon which all sums due are received by or on behalf of the relevant holder, at a rate per annum which is the rate for deposits in U.S. dollars for a period of three months which appears on the Reuters Screen LIBOR page as of 11:00 a.m. (London time) on the first business day following such failure to pay. Such rate shall be determined by the calculation agent. If interest is required to be calculated for a period of less than one year, it will be calculated on the basis of a 360-day year consisting of the actual number of days in the period.





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Events of default and acceleration: If the maturity of the Trigger PLUS is accelerated upon an event of default under the Indenture, the amount payable upon acceleration will be determined by the calculation agent. Such amount will be calculated as if the date of declaration of acceleration were the valuation date.

Minimum ticketing size: \$1,000 / 100 Trigger PLUS

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

However, no Additional Amounts will be payable with respect to a payment made to a holder of the Trigger PLUS or of a right to receive payments in respect thereto (a “Payment Recipient”), which we refer to as an “Excluded Holder,” in respect of any taxes imposed because the beneficial owner or Payment Recipient:

- Additional amounts:
- (i) with whom we do not deal at arm’s length (within the meaning of the Income Tax Act (Canada)) at the time of making such payment;
  - (ii) who is subject to such taxes by reason of its being connected presently or formerly with Canada or any province or territory thereof otherwise than by reason of the holder’s activity in connection with purchasing the Trigger PLUS, the holding of the Trigger PLUS or the receipt of payments thereunder;
  - (iii) who is, or who does not deal at arm’s length with a person who is, a “specified shareholder” (within the meaning of subsection 18(5) of the Income Tax Act (Canada)) of Royal Bank of Canada (generally a person will be a “specified shareholder” for this purpose if that person, either alone or together with persons with whom the person does not deal at arm’s length, owns 25% or more of (a) our voting shares, or (b) the fair market value of all of our issued and outstanding shares);
  - (iv) who presents such security for payment (where presentation is required) more than 30 days after the relevant date (except to the extent that the holder thereof would have been entitled to such Additional Amounts on presenting a security for payment on the last day of such 30 day period); for this purpose, the “relevant date” in relation to any payments on any security means:
    - a. the due date for payment thereof, or
    - b. if the full amount of the monies payable on such date has not been received by the trustee on or prior to such due date, the date on which the full amount of such monies has been received and notice to that effect is given to holders of the Trigger PLUS in accordance with the Indenture;
  - (v) who could lawfully avoid (but has not so avoided) such withholding or deduction by complying, or requiring that any agent comply with, any statutory requirements necessary to establish qualification for an exemption

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from withholding or by making, or requiring that any agent make, a declaration of non-residence or other similar claim for exemption to any relevant tax authority; or  
 (vi) who is subject to deduction or withholding on account of any tax, assessment, or other governmental charge that is imposed or withheld by reason of the application of Section 1471 through 1474 of the United States Internal Revenue Code of 1986, as amended (the “Code”) (or any successor provisions), any regulation, pronouncement, or agreement thereunder, official interpretations thereof, or any law implementing an intergovernmental approach thereto, whether currently in effect or as published and amended from time to time.

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

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

For additional information, see the section entitled “Tax Consequences—Canadian Taxation” in the accompanying prospectus.

Form of the  
 Trigger  
 PLUS:

Book-entry

Trustee:

The Bank of New York Mellon

Calculation  
 agent:

RBCCM. The calculation agent will make all determinations regarding the Trigger PLUS. Absent manifest error, all determinations of the calculation agent will be final and binding on you and us, without any liability on the part of the calculation agent. You will not be entitled to any compensation from us for any loss suffered as a result of any of the above determinations or confirmations by the calculation agent.

Contact:

Morgan Stanley Wealth Management clients may contact their local Morgan Stanley Wealth Management branch office or our principal executive offices at 1585 Broadway, New York, New York 10036 (telephone number 1-(866)-477-4776). All other clients may contact their local brokerage representative. Third-party distributors may contact Morgan Stanley Structured Investment Sales at 1-(800)-233-1087.

Validity of  
 the Trigger  
 PLUS:

In the opinion of Norton Rose Fulbright Canada LLP, the issue and sale of the Trigger PLUS has been duly authorized by all necessary corporate action of the Bank in conformity with the Indenture, and when the Trigger PLUS have been duly executed, authenticated and issued in accordance with the Indenture and delivered against payment therefor, the Trigger PLUS will be validly issued and, to the extent validity of the Trigger PLUS is a matter governed by the laws of the Province of Ontario or Québec, or the laws of Canada applicable therein, and will be valid obligations of the Bank, subject to equitable remedies which may only be granted at the discretion of a court of competent authority, subject to applicable bankruptcy, to rights to indemnity and contribution under the Trigger PLUS 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

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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 January 8, 2016, which has been filed as Exhibit 5.1 to Royal Bank's Form 6-K filed with the SEC dated January 8, 2016.

In the opinion of Morrison & Foerster LLP, when the Trigger PLUS have been duly completed in accordance with the Indenture and issued and sold as contemplated by the prospectus supplement and the prospectus, the Trigger PLUS will be valid, binding and enforceable obligations of Royal Bank, entitled to the benefits of the Indenture, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability (including, without limitation, concepts of good faith, fair dealing and the lack of bad faith). This opinion is given as of the date hereof and is limited to the laws of the State of New York. This opinion is subject to customary assumptions about the Trustee's authorization, execution and delivery of the Indenture and the genuineness of signatures and to such counsel's reliance on the Bank and other sources as to certain factual matters, all as stated in the legal opinion dated January 8, 2016, which has been filed as Exhibit 5.2 to the Bank's Form 6-K dated January 8, 2016.

Terms incorporated in the master note: All of the terms in "Summary Terms" (except the item captioned "Commissions and issue price") and the terms above the item captioned "Contact" in "Additional Terms of the Trigger PLUS" of this pricing supplement, and the section "Supplemental Discussion of U.S. Federal Income Tax Consequences." In addition to those terms, the following two sentences are also so incorporated into the master note: RBC confirms that it fully understands and is able to calculate the effective annual rate of interest applicable to the Trigger PLUS based on the methodology for calculating per annum rates provided for in the Trigger PLUS. RBC irrevocably agrees not to plead or assert Section 4 of the Interest Act (Canada), whether by way of defense or otherwise, in any proceeding relating to the Trigger PLUS.

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Information About the VanEck Vectors® Gold Miners ETF

We have derived the following information from publicly available documents. We have not independently verified the accuracy or completeness of the following information. We are not affiliated with the Fund, and the Fund will have no obligations with respect to the Trigger PLUS.

The GDX is an investment portfolio maintained, managed and advised by Van Eck. The GDX is an exchange traded fund that trades on NYSE Arca under the ticker symbol “GDX.”

Information provided to or filed with the SEC by the VanEck Vectors ETF Trust under the Securities Act of 1933, as amended, and the Investment Company Act of 1940, as amended, can be located by reference to SEC file numbers 333-123257 and 811-10325, respectively, through the SEC’s website at <http://www.sec.gov>. In addition, information regarding the Fund may be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. We have not participated in the preparation of, or verified, such publicly available information. None of the forgoing documents or filings are incorporated by reference in, and should not be considered part of, this document.

The GDX seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of the NYSE Arca Gold Miners Index. The GDX utilizes a “passive” or “indexing” investment approach in attempting to track the performance of the underlying index. The GDX will invest in all of the securities which comprise the underlying index. The GDX will normally invest at least 95% of its total assets in common stocks that comprise the underlying index.

The Underlying Index

The NYSE Arca Gold Miners Index is a modified market capitalization weighted index comprised of securities issued by publicly traded companies involved primarily in the mining of gold or silver. The underlying index was developed by the NYSE Amex and is calculated, maintained and published by NYSE Arca.

Eligibility Criteria for Index Components

The underlying index includes common stocks, ADRs or GDRs of selected companies that are involved in mining for gold and silver and that are listed for trading and electronically quoted on a major stock market that is accessible by foreign investors. Generally, this includes exchanges in most developed markets and major emerging markets, and includes companies that are cross-listed, i.e., both U.S. and Canadian listings. NYSE Arca will use its discretion to avoid exchanges and markets that are considered “frontier” in nature or have major restrictions to foreign ownership. The underlying index includes companies that derive at least 50% of their revenues from gold mining and related activities (40% for companies that are already included in the underlying index). Also, the underlying index will maintain an exposure to companies with a significant revenue exposure to silver mining in addition to gold mining, which will not exceed 20% of the underlying index weight at each rebalance.

Currently, only companies with a market capitalization of greater than \$750 million that have an average daily trading volume of at least 50,000 shares and an average daily value traded of at least \$1 million over the past three months are eligible for inclusion in the underlying index. Starting in December 2013, for companies already included in the underlying index, the market capitalization requirement at each rebalance will be \$450 million, the average daily volume requirement will be at least 30,000 shares over the past three months and the average daily value traded requirement will be at least \$600,000 over the past three months.

NYSE Arca has the discretion to not include all companies that meet the minimum criteria for inclusion.

Calculation of the Underlying Index

The underlying index is calculated by NYSE Arca on a price return basis. The calculation is based on the current modified market capitalization divided by a divisor. The divisor was determined on the initial capitalization base of the underlying index and the base level and may be adjusted as a result of corporate actions and composition changes, as described below. The level of the underlying index was set at 500.00 on December 20, 2002 which is the index base date. The underlying index is calculated using the following formula:

Where:

t = day of calculation;

N = number of constituent equities in the underlying index;

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$Q_{i,t}$  = number of shares of equity  $i$  on day  $t$ ;

$M_{i,t}$  = multiplier of equity  $i$ ;

$C_{i,t}$  = price of equity  $i$  on day  $t$ ; and

DIV = current index divisor on day  $t$ .

Underlying Index Maintenance

The underlying index is reviewed quarterly to ensure that at least 90% of the underlying index weight is accounted for by index components that continue to meet the initial eligibility requirements. NYSE Arca may at any time and from time to time change the number of securities comprising the group by adding or deleting one or more securities, or replacing one or more securities contained in the group with one or more substitute securities of its choice, if in NYSE Arca's discretion such addition, deletion or substitution is necessary or appropriate to maintain the quality and/or character of the underlying index. Components will be removed from the underlying index during the quarterly review if either (1) the market capitalization falls below \$450 million or (2) the traded average daily shares for the previous three months is less than 30,000 shares and the average daily traded value for the previous three months is less than \$600,000.

At the time of the quarterly rebalance, the component security weights (also referred to as the multiplier or share quantities of each component security) will be modified to conform to the following asset diversification requirements:

- (1) the weight of any single component security may not account for more than 20% of the total value of the underlying index;  
the component securities are split into two subgroups—large and small, which are ranked by market capitalization weight in the underlying index. Large securities are defined as having a starting index weight greater than or equal to 5%. Small securities are defined as having a starting index weight below 5%; and
- (2) the final aggregate weight of those component securities which individually represent more than 4.5% of the total value of the underlying index may not account for more than 45% of the total index value.
- (3)

The weights of the components securities (taking into account expected component changes and share adjustments) are modified in accordance with the underlying index's diversification rules.

Diversification Rule 1: If any component stock exceeds 20% of the total value of the underlying index, then all stocks greater than 20% of the underlying index are reduced to represent 20% of the value of the underlying index. The aggregate amount by which all component stocks are reduced is redistributed proportionately across the remaining stocks that represent less than 20% of the index value. After this redistribution, if any other stock then exceeds 20%, the stock is set to 20% of the index value and the redistribution is repeated.

Diversification Rule 2: The components are sorted into two groups, large are components with a starting index weight of 5% or greater and small are components with a weight of under 5% (after any adjustments for Diversification Rule 1). The large group will represent in the aggregate 45% and the small group will represent 55% in the aggregate of the final index weight. This will be adjusted through the following process: The weight of each of the large stocks will be scaled down proportionately (with a floor of 5%) so that the aggregate weight of the large components will be reduced to represent 45% of the underlying index. If any large component stock falls below a weight equal to the product of 5% and the proportion by which the stocks were scaled down following this distribution, then the weight of the stock is set equal to 5% and the components with weights greater than 5% will be reduced proportionately. The weight of each of the small components will be scaled up proportionately from the redistribution of the large components. If any small component stock exceeds a weight equal to the product of 4.5% and the proportion by which the stocks were scaled down following this distribution, then the weight of the stock is set equal to 4.5%. The redistribution of weight to the remaining stocks is repeated until the entire amount has been redistributed.

Changes to the underlying index composition and/or the component security weights in the underlying index are determined and announced prior to taking effect. These changes typically become effective after the close of trading on the third Friday of each calendar quarter month in connection with the quarterly index rebalance. The share

quantities of each component security in the index portfolio remains fixed between quarterly reviews except in the event of certain types of corporate actions such as stock splits, reverse stock splits, stock dividends, or similar events. The share quantities used in the underlying index calculation are not typically adjusted for shares issued or repurchased between quarterly reviews. However, in the event of a merger between two components, the share quantities of the surviving entity may be adjusted to account for any stock issued in the acquisition. NYSE Arca may substitute securities or change the number of securities included in the underlying index, based on changing conditions in the industry or in the event of certain types of corporate actions, including mergers, acquisitions, spin-offs, and reorganizations. In the event of component or share quantity changes to the index portfolio, the payment of dividends other than ordinary cash dividends, spin-offs, rights offerings, re-capitalization, or other corporate actions affecting

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a component security of the underlying index, the index divisor may be adjusted to ensure that there are no changes to the index level as a result of nonmarket forces.

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#### Historical Information

The table below sets forth the published high and low closing prices of the underlying shares for each quarter in the period from January 1, 2013 through July 31, 2018. The graph below sets forth the daily closing prices of the underlying shares from January 1, 2013 through July 31, 2018. We obtained the information in the table and graph below from Bloomberg Financial Markets, without independent verification. You should not take the historical performance of the underlying shares as an indication of its future performance, and no assurance can be given as to the price of the underlying shares on the valuation date.

VanEck Vectors® Gold Miners ETF

Information as of market close on July 31, 2018:

Bloomberg Ticker Symbol:	GDX	52 Weeks Ago:	\$22.86
Current Price:	\$21.28	52 Week High (on 9/7/2017):	\$25.49
		52 Week Low (on 3/20/2018):	\$21.27

VanEck Vectors® Gold Miners ETF High(\$)/Low(\$)

#### 2013

First Quarter	47.09	35.91
Second Quarter	37.45	22.22
Third Quarter	30.43	22.90
Fourth Quarter	26.52	20.39

#### 2014

First Quarter	27.73	21.27
Second Quarter	26.45	22.04
Third Quarter	27.46	21.35
Fourth Quarter	21.94	16.59

#### 2015

First Quarter	22.94	17.67
Second Quarter	20.82	17.76
Third Quarter	17.85	13.04
Fourth Quarter	16.90	13.08

#### 2016

First Quarter	20.86	12.47
Second Quarter	27.70	19.53
Third Quarter	31.32	25.45
Fourth Quarter	25.96	18.99

2017

First Quarter	25.57	21.14
Second Quarter	24.57	21.10
Third Quarter	25.49	21.21
Fourth Quarter	23.84	21.42

2018

First Quarter	24.60	21.27
Second Quarter	23.06	21.81
Third Quarter (through July 31, 2018)	22.68	21.27

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VanEck Vectors® Gold Miners ETF – Historical Closing Prices  
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#### Canadian Federal Income Tax Consequences

An investor should read carefully the description of material Canadian federal income tax considerations relevant to a Non-resident Holder owning debt securities under “Tax Consequences—Canadian Taxation” in the accompanying prospectus.

#### Supplemental Discussion of U.S. Federal Income Tax Consequences

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

#### Supplemental U.S. Tax Considerations

The following section supplements the discussion of U.S. federal income taxation in the accompanying prospectus and prospectus supplement. It applies only to those initial holders who are not excluded from the discussion of U.S. federal income taxation in the accompanying prospectus. It does not apply to holders subject to special rules including holders subject to Section 451(b) of the Code.

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

We will not attempt to ascertain whether the Fund or any of the entities whose stock is included in the Fund would be treated as a “passive foreign investment company” within the meaning of Section 1297 of the Internal Revenue Code of 1986, as amended (the “Code”), or a “U.S. real property holding corporation” within the meaning of Section 897 of the Code. If the Fund or any of the entities whose stock is included in the Fund were so treated, certain adverse U.S. federal income tax consequences could possibly apply to U.S. and non-U.S. holders, respectively. You should refer to any available information filed with the SEC and other authorities by the Fund or the entities whose stock is included in the Fund and consult your tax advisor regarding the possible consequences to you in this regard.

In the opinion of our counsel, Morrison & Foerster LLP, it would generally be reasonable to treat a Trigger PLUS as a pre-paid cash-settled derivative contract in respect of the Fund for U.S. federal income tax purposes, and the terms of the Trigger PLUS require a holder and us (in the absence of a change in law or an administrative or judicial ruling to the contrary) to treat the Trigger PLUS for all tax purposes in accordance with such characterization. If the Trigger PLUS are so treated, subject to the potential application of the “constructive ownership” rules under Section 1260 of the Code, a U.S. holder should generally recognize capital gain or loss upon the sale, exchange or maturity of the Trigger PLUS in an amount equal to the difference between the amount a holder receives at such time and the holder’s tax basis in the Trigger PLUS. In general, a U.S. holder’s tax basis in the Trigger PLUS will be equal to the price the holder paid for the Trigger PLUS. Capital gain recognized by an individual U.S. holder is generally taxed at preferential rates where the property is held for more than one year and is generally taxed at ordinary income rates where the property is held for one year or less. The deductibility of capital losses is subject to limitations.

While the matter is not entirely clear, there exists a substantial risk that an investment in the Trigger PLUS is a “constructive ownership transaction” to which Section 1260 of the Code applies. If Section 1260 of the Code applies, all or a portion of any long-term capital gain recognized by a U.S. holder in respect of the Trigger PLUS will be recharacterized as ordinary income (the “Excess Gain”). In addition, an interest charge will also apply to any deemed

underpayment of tax in respect of any Excess Gain to the extent such gain would have resulted in gross income inclusion for the U.S. holder in taxable years prior to the taxable year of the sale, exchange or maturity (assuming such income accrued at a constant rate equal to the applicable federal rate as of the date of sale, exchange or maturity). To the extent any gain is treated as long-term capital gain after application of the

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recharacterization rules of Section 1260 of the Code, such gain would be subject to U.S. federal income tax at the rates that would have been applicable to the net underlying long-term capital gain. Unless otherwise established by clear and convincing evidence, the net underlying long term capital gain is treated as zero. U.S. holders should consult their tax advisors regarding the potential application of Section 1260 of the Code to an investment in the Trigger PLUS. Alternative Treatments. Alternative tax treatments of the Trigger PLUS are also possible and the Internal Revenue Service might assert that a treatment other than that described above is more appropriate. For example, it is possible to treat the Trigger PLUS, and the Internal Revenue Service might assert that a Trigger PLUS should be treated, as a single debt instrument. Pursuant to such characterization, since the Trigger PLUS have a term that exceeds one year, such a debt instrument would be subject to the special tax rules governing contingent payment debt instruments. If the Trigger PLUS are so treated, a holder would generally be required to accrue interest income over the term of the Trigger PLUS based upon the yield at which we would issue a non-contingent fixed-rate debt instrument with other terms and conditions similar to the Trigger PLUS. In addition, any gain a holder might recognize upon the sale, exchange or maturity of the Trigger PLUS would generally be ordinary income and any loss recognized by a holder at such time would generally be ordinary loss to the extent of interest that same holder included in income in the current or previous taxable years in respect of the Trigger PLUS, and thereafter, would be capital loss.

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

The Internal Revenue Service has released a notice that may affect the taxation of holders of the Trigger PLUS. According to the notice, the Internal Revenue Service<sup>SM</sup> and the U.S. Treasury Department are actively considering whether the holder of an instrument such as the Trigger PLUS should be required to accrue ordinary income on a current basis. It is not possible to determine what guidance they will ultimately issue, if any. It is possible, however, that under such guidance, holders of the Trigger PLUS will ultimately be required to accrue income currently and this could be applied on a retroactive basis. The Internal Revenue Service and the U.S. Treasury Department are also considering other relevant issues, including whether additional gain or loss from such instruments should be treated as ordinary or capital and whether the constructive ownership rules of Section 1260 of the Code (as discussed above) might be applied to such instruments. Holders are urged to consult their tax advisors concerning the significance, and the potential impact, of the above considerations. We intend to treat the Trigger PLUS for U.S. federal income tax purposes in accordance with the treatment described in this document unless and until such time as the U.S. Treasury Department and Internal Revenue Service determine that some other treatment is more appropriate.

Backup Withholding and Information Reporting. Please see the discussion under “Tax Consequences—United States Taxation—Information Reporting and Backup Withholding” in the accompanying prospectus for a description of the applicability of the backup withholding and information reporting rules to payments made on the Trigger PLUS.

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

Except as described below, a non-U.S. holder will generally not be subject to U.S. federal income or withholding tax for amounts paid in respect of the Trigger PLUS, provided that (i) the holder complies with any applicable certification requirements, (ii) the payment is not effectively connected with the conduct by the holder of a U.S. trade or business, and (iii) if the holder is a non-resident alien individual, such holder is not present in the U.S. for 183 days or more during the taxable year of the sale, exchange or maturity of the Trigger PLUS. In the case of (ii) above, the holder generally would be subject to U.S. federal income tax with respect to any income or gain in the same manner as if the holder were a U.S. holder and, in the case of a holder that is a corporation, the holder may also be subject to a branch profits tax equal to 30% (or such lower rate provided by an applicable U.S. income tax treaty) of a portion of

its earnings and profits for the taxable year that are effectively connected with its conduct of a U.S. trade or business, subject to certain adjustments. Payments made to a non-U.S. holder may be subject to information reporting and to backup withholding unless the holder complies with applicable certification and identification requirements as to its foreign status.

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

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Department regulations, payments (including deemed payments) with respect to equity-linked instruments (“ELIs”) that are “specified ELIs” may be treated as dividend equivalents if such specified ELIs reference an interest in an “underlying security,” which is generally any interest in an entity taxable as a corporation for U.S. federal income tax purposes if a payment with respect to such interest could give rise to a U.S. source dividend. However, the Internal Revenue Service has issued guidance that states that the U.S. Treasury Department and the Internal Revenue Service 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, 2019. Based on our determination that the Trigger PLUS are not delta-one instruments, non-U.S. holders should not be subject to withholding on dividend equivalent payments, if any, under the Trigger PLUS. However, it is possible that the Trigger PLUS could be treated as deemed reissued for U.S. federal income tax purposes upon the occurrence of certain events affecting the Fund or the Trigger PLUS, and following such occurrence the Trigger PLUS 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 Fund or the Trigger PLUS should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the Trigger PLUS 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.

As discussed above, alternative characterizations of the Trigger PLUS for U.S. federal income tax purposes are possible. Should an alternative characterization, by reason of change or clarification of the law, by regulation or otherwise, cause payments as to the Trigger PLUS to become subject to withholding tax, we will withhold tax at the applicable statutory rate. The Internal Revenue Service has also indicated that it is considering whether income in respect of instruments such as the Trigger PLUS should be subject to withholding tax. We will not be required to pay any additional amounts in respect of such withholding. Prospective investors should consult their own tax advisors in this regard.

Foreign Account Tax Compliance Act. The Foreign Account Tax Compliance Act (“FATCA”) imposes a 30% U.S. withholding tax on certain U.S. source payments, including interest (and OID), dividends, other fixed or determinable annual or periodical gain, profits, and income, and on the gross proceeds from a disposition of property of a type which can produce U.S. source interest or dividends (“Withholdable Payments”), if paid to a foreign financial institution (including amounts paid to a foreign financial institution on behalf of a holder), unless such institution enters into an agreement with the U.S. Treasury Department to collect and provide to the U.S. Treasury Department certain information regarding U.S. financial account holders, including certain account holders that are foreign entities with U.S. owners, with such institution or otherwise complies with FATCA. In addition, the Trigger PLUS may constitute a “financial account” for these purposes and thus, be subject to information reporting requirements pursuant to FATCA. FATCA also generally imposes a withholding tax of 30% on Withholdable Payments made to a non-financial foreign entity unless such entity provides the withholding agent with a certification that it does not have any substantial U.S. owners or a certification identifying the direct and indirect substantial U.S. owners of the entity. Under certain circumstances, a holder may be eligible for refunds or credits of such taxes.

The U.S. Treasury Department and the Internal Revenue Service have announced that withholding on payments of gross proceeds from a sale or redemption of the Trigger PLUS will only apply to payments made after December 31, 2018. If we determine withholding is appropriate with respect to the Trigger PLUS, we will withhold tax at the applicable statutory rate, and we will not pay any additional amounts in respect of such withholding. Therefore, if such withholding applies, any payments on the Trigger PLUS will be significantly less than what you would have otherwise received. Depending on your circumstances, these amounts withheld may be creditable or refundable to you. Foreign financial institutions and non-financial foreign entities located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules. Prospective investors are urged to consult with their own tax advisors regarding the possible implications of FATCA on their

investment in the Trigger PLUS.

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Use of Proceeds and Hedging

The net proceeds from the sale of the Trigger PLUS will be used as described under “Use of Proceeds” in the accompanying prospectus supplement and prospectus and to hedge market risks of Royal Bank of Canada associated with its obligation to make the payment at maturity on the Trigger PLUS. The initial public offering price of the Trigger PLUS includes the underwriting discount and commission and the estimated cost of hedging our obligations under the Trigger PLUS.

Supplemental Information Regarding Plan of Distribution; Conflicts of Interest

Pursuant to the terms of a distribution agreement, RBCCM, an affiliate of Royal Bank of Canada, will purchase the Trigger PLUS from Royal Bank of Canada for distribution to Morgan Stanley Wealth Management. RBCCM will act as agent for the Trigger PLUS and will receive a fee of \$0.225 per \$10 stated principal amount and will pay to Morgan Stanley Wealth Management a fixed sales commission of \$0.175 for each of the Trigger PLUS they sell. Of the amount per \$10 stated principal amount received by RBCCM, RBCCM will pay Morgan Stanley Wealth Management a structuring fee of \$0.05 for each Trigger PLUS.

Morgan Stanley Wealth Management may reclaim selling concessions allowed to individual brokers within Morgan Stanley Wealth Management in connection with the offering if, within 30 days of the offering, Royal Bank of Canada repurchases the Trigger PLUS distributed by such brokers.

Delivery of the Trigger PLUS will be made against payment for the Trigger PLUS on August 3, 2018, which is the third business day following the pricing date (this settlement cycle being referred to as “T+3”). 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 Trigger PLUS 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 addition, RBCCM or another of its affiliates or agents may use this document in market-making transactions after the initial sale of the Trigger PLUS, but is under no obligation to do so and may discontinue any market-making activities at any time without notice.

For additional information as to the relationship between us and RBCCM, please see the section “Plan of Distribution—Conflicts of Interest” in the accompanying prospectus.

The value of the Trigger PLUS shown on your account statement may be based on RBCCM’s estimate of the value of the Trigger PLUS if RBCCM or another of our affiliates were to make a market in the Trigger PLUS (which it is not obligated to do). That estimate will be based on the price that RBCCM may pay for the Trigger PLUS in light of then prevailing market conditions, our creditworthiness and transaction costs. For an initial period of approximately seven months, the value of the Trigger PLUS that may be shown on your account statement is expected to be higher than RBCCM’s estimated value of the Trigger PLUS at that time. This is because the estimated value of the Trigger PLUS will not include the agent’s commission and our hedging costs and profits; however, the value of the Trigger PLUS shown on your account statement during that period is initially expected to be a higher amount, reflecting the addition of the agent’s commission and our estimated costs and profits from hedging the PLUS. This excess is expected to decrease over time until the end of this period, and we reserve the right to shorten this period. After this period, if RBCCM repurchases your Trigger PLUS, it expects to do so at prices that reflect its estimated value.

No Prospectus (as defined in Directive 2003/71/EC (as amended, the “Prospectus Directive”)) will be prepared in connection with the Trigger PLUS. Accordingly, the Trigger PLUS may not be offered to the public in any member state of the European Economic Area (the “EEA”), and any purchaser of the Trigger PLUS who subsequently sells any of the Trigger PLUS in any EEA member state must do so only in accordance with the requirements of the Prospectus Directive, as implemented in that member state.

The Trigger PLUS are not intended to be offered, sold or otherwise made available to, and should not be offered, sold or otherwise made available to, any retail investor in the EEA. For these purposes, the expression “offer” includes the communication in any form and by any means of sufficient information on the terms of the offer and the Trigger

PLUS to be offered so as to enable an investor to decide to purchase or subscribe the Trigger PLUS, and a “retail investor” means a person who is one (or more) of: (a) a retail client, as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as

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amended, “MiFID II”); or (b) a customer, within the meaning of Insurance Distribution Directive 2016/97/EU, as amended, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (c) not a qualified investor as defined in the Prospectus Directive. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the “PRIIPs Regulation”) for offering or selling the Trigger PLUS or otherwise making them available to retail investors in the EEA has been prepared, and therefore, offering or selling the Trigger PLUS or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

#### Structuring the Trigger PLUS

The Trigger PLUS are our debt securities, the return on which is linked to the performance of the underlying shares. As is the case for all of our debt securities, including our structured notes, the economic terms of the Trigger PLUS 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 securities 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, along with the fees and expenses associated with structured notes, reduced the initial estimated value of the Trigger PLUS at the time their terms were set. Unlike the estimated value included in this document, any value of the Trigger PLUS 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 Trigger PLUS than if our initial internal funding rate were used.

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

The lower implied borrowing rate, the underwriting commission and the hedging-related costs relating to the Trigger PLUS reduced the economic terms of the Trigger PLUS to you and resulted in the initial estimated value for the Trigger PLUS on the pricing date being less than their public offering price. See “Risk Factors—The initial estimated value of the Trigger PLUS is less than the price to the public” above.

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Employee Retirement Income Security Act

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

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

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

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

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

