

ROYAL BANK OF CANADA  
Form 424B2  
February 27, 2017

RBC Capital Markets® Filed Pursuant to Rule 424(b)(2)  
Registration Statement No. 333-208507

## Pricing Supplement

Dated February 24, 2017 \$1,128,000  
To the Product Auto-Callable Contingent Coupon Barrier  
Prospectus Supplement Notes Linked to the VanEck Vectors® Gold  
No. TP-1, Prospectus Miners ETF, Due February 27, 2020  
Supplement and Royal Bank of Canada  
Prospectus, Each Dated  
January 8, 2016

Royal Bank of Canada is offering Auto-Callable Contingent Coupon Barrier Notes (the “Notes”) linked to the VanEck Vectors® Gold Miners ETF (the “Reference Stock”). The Notes offered are senior unsecured obligations of Royal Bank of Canada, will pay a Contingent Coupon at the rate and under the circumstances specified below, and will have the terms described in the documents described above, as supplemented or modified by this pricing supplement. The Notes will not be listed on any securities exchange.

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

Investing in the Notes involves a number of risks. See “Risk Factors” beginning on page PS-5 of the product prospectus supplement dated January 8, 2016, on page S-1 of the prospectus supplement dated January 8, 2016, and “Selected Risk Considerations” beginning on page P-7 of this pricing supplement.

The Notes will not constitute deposits insured by the Canada Deposit Insurance Corporation, the U.S. Federal Deposit Insurance Corporation or any other Canadian or U.S. government agency or instrumentality.

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

Issuer:	Royal Bank of Canada	Listing:	None
Trade Date:	February 24, 2017	Principal Amount:	\$1,000 per Note
Issue Date:	February 28, 2017	Maturity Date:	February 27, 2020
Observation Dates:	Quarterly, as set forth on page P-2 of this pricing supplement.	Coupon Payment Dates:	Quarterly, as set forth on page P-2 of this pricing supplement.
Valuation Date:	February 24, 2020	Contingent Coupon Rate:	9.40% per annum
Initial Stock Price:	\$24.13, which was the closing price of the Reference Stock on the Trade Date.		
Final Stock Price:	The closing price of the Reference Stock on the Valuation Date.		
Call Stock Price:	100% of the Initial Stock Price.		
Trigger Price and Coupon Barrier:	\$14.48, which is 60% of the Initial Stock Price (rounded to two decimal places).		
Contingent Coupon:	If the closing price of the Reference Stock is greater than or equal to the Coupon Barrier on the applicable Observation Date, we will pay the Contingent Coupon applicable to that		

Observation Date. You may not receive any Contingent Coupons during the term of the Notes. If the Notes are not previously called, we will pay you at maturity an amount based on the Final Stock Price of the Reference Stock:

For each \$1,000 in principal amount, \$1,000 plus the Contingent Coupon at maturity, unless Payment at Maturity (if the Final Stock Price is less than the Trigger Price.

held to maturity): If the Final Stock Price is less than the Trigger Price, then the investor will receive at maturity, for each \$1,000 in principal amount, a cash payment equal to: \$1,000 + (\$1,000 x Reference Stock Return)

Investors could lose some or all of the value of their initial investment if there has been a decline in the trading price of the Reference Stock.

Call Feature: The Notes will be automatically called for 100% of their principal amount, plus accrued interest, if the closing price of the Reference Stock is greater than or equal to the Call Stock Price on any Observation Date beginning on February 26, 2018.

Call Settlement Dates: The Coupon Payment Date corresponding to that Observation Date.

CUSIP: 78012KB22

Dividend Equivalent Payments: Non-U.S. holders will not be subject to withholding on dividend equivalent payments under Section 871(m) of the U.S. Internal Revenue Code. Please see the section below, "Supplemental Discussion of U.S. Federal Income Tax Consequences," which applies to the Notes.

	Per Note	Total
Price to public <sup>(1)</sup>	100.00%	\$1,128,000
Underwriting discounts and commissions <sup>(1)</sup>	2.25%	\$25,380
Proceeds to Royal Bank of Canada	97.75%	\$1,102,620

<sup>(1)</sup> Certain dealers who purchased the notes for sale to certain fee-based advisory accounts may have foregone some or all of their underwriting discount or selling concessions. The public offering price for investors purchasing the notes in these accounts may be between \$977.50 and \$1,000 per \$1,000 in principal amount.

The initial estimated value of the Notes as of the date of this pricing supplement is \$964.172 per \$1,000 in principal amount, which is less than the price to public. The actual value of the Notes at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount. We describe our determination of the initial estimated value in more detail below.

RBC Capital Markets, LLC, which we refer to as RBCCM, acting as agent for Royal Bank of Canada, received a commission of \$22.50 per \$1,000 in principal amount of the Notes and used a portion of that commission to allow selling concessions to other dealers of up to \$22.50 per \$1,000 in principal amount of the Notes. The other dealers may forgo, in their sole discretion, some or all of their selling concessions. See "Supplemental Plan of Distribution (Conflicts of Interest)" on page P-16 below.

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

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Auto-Callable Contingent Coupon Barrier Notes  
to the VanEck Vectors® Gold Miners ETF,  
Due February 27, 2020

## SUMMARY

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

**General:** This pricing supplement relates to an offering of Auto-Callable Contingent Coupon Barrier Notes (the “Notes”) linked to the VanEck Vectors® Gold Miners ETF (the “Reference Stock”).

**Issuer:** Royal Bank of Canada (“Royal Bank”)

**Issue:** Senior Global Medium-Term Notes, Series G

**Trade Date:** February 24, 2017

**Issue Date:** February 28, 2017

**Term:** Three (3) years

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

**Designated  
Currency:** U.S. Dollars

We will pay you a Contingent Coupon during the term of the Notes, periodically in arrears on each Coupon Payment Date, under the conditions described below:

**Contingent  
Coupon:**

- If the closing price of the Reference Stock is greater than or equal to the Coupon Barrier on the applicable Observation Date, we will pay the Contingent Coupon applicable to that Observation Date.
- If the closing price of the Reference Stock is less than the Coupon Barrier on the applicable Observation Date, we will not pay you the Contingent Coupon applicable to that Observation Date. You may not receive a Contingent Coupon for one or more quarterly periods during the term of the Notes.

**Contingent  
Coupon Rate:** 9.40% per annum (2.35% per quarter).

**Observation Dates:** Quarterly, on May 24, 2017, August 24, 2017, November 24, 2017, February 26, 2018, May 24, 2018, August 24, 2018, November 26, 2018, February 25, 2019, May 24, 2019, August 26, 2019, November 25, 2019 and the Valuation Date.

**Coupon Payment  
Dates:** The Contingent Coupon, if applicable, will be paid on May 30, 2017, August 29, 2017, November 29, 2017, March 1, 2018, May 30, 2018, August 29, 2018, November 29, 2018, February 28, 2019, May 30, 2019, August 29, 2019, November 29, 2019 and the Maturity Date.

**Call Feature:** If, on any Observation Date beginning on February 26, 2018, the closing price of the Reference Stock is greater than or equal to the Call Stock Price, then the Notes will be automatically called. If the Notes are automatically called, then, on the applicable Call Settlement Date, for each \$1,000

**Payment if Called:** principal amount, you will receive \$1,000 plus the Contingent Coupon otherwise due on that Call Settlement Date.

**Call Settlement  
Dates:** If the Notes are called on any Observation Date, the Call Settlement Date will be the Coupon Payment Date corresponding to that Observation Date.

**Valuation Date:** February 24, 2020

**Maturity Date:** February 27, 2020

**Initial Stock Price:** \$24.13, which was the closing price of the Reference Stock on the Trade Date.

**Final Stock Price:** The closing price of the Reference Stock on the Valuation Date.

**Call Stock Price:** \$24.13, which is 100% of the Initial Stock Price.

\$14.48, which is 60% of the Initial Stock Price (rounded to two decimal places).

Trigger Price and  
Coupon  
Barrier:

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	If the Notes are not previously called, we will pay you at maturity an amount based on the Final Stock Price of the Reference Stock:
	· If the Final Stock Price is greater than or equal to the Trigger Price, we will pay you a cash payment equal to the principal amount plus the Contingent Coupon otherwise due on the Maturity Date.
Payment at Maturity (if held to maturity):	· If the Final Stock Price is below the Trigger Price, you will receive at maturity, for each \$1,000 in principal amount, a cash payment equal to: \$1,000 + (\$1,000 x Reference Stock Return)
	The amount of cash that you receive will be less than your principal amount, if anything, resulting in a loss that is proportionate to the decline of the Reference Stock from the Trade Date to the Valuation Date. Investors in the Notes could lose some or all of their investment if there has been a decline in the trading price of the Reference Stock below the Trigger Price.
Reference Stock Return:	$\frac{\text{Final Stock Price} - \text{Initial Stock Price}}{\text{Initial Stock Price}}$
Stock Settlement:	Not applicable. Payments on the Notes will be made solely in cash.
Market Disruption Events:	The occurrence of a market disruption event (or a non-trading day) as to the Reference Stock will result in the postponement of an Observation Date or the Valuation Date, as described in the product prospectus supplement.
Calculation Agent:	RBC Capital Markets, LLC (“RBCCM”)
U.S. Tax Treatment:	By purchasing a Note, each holder agrees (in the absence of a change in law, an administrative determination or a judicial ruling to the contrary) to treat the Note as a callable pre-paid cash-settled contingent income-bearing derivative contract for U.S. federal income tax purposes. However, the U.S. federal income tax consequences of your investment in the Notes are uncertain and the Internal Revenue Service could assert that the Notes should be taxed in a manner that is different from that described in the preceding sentence. Please see the section below, “Supplemental Discussion of U.S. Federal Income Tax Consequences,” and the discussion (including the opinion of our counsel Morrison & Foerster LLP) in the product prospectus supplement dated January 8, 2016 under “Supplemental Discussion of U.S. Federal Income Tax Consequences,” which apply to the Notes.
Secondary Market:	RBCCM (or one of its affiliates), though not obligated to do so, may maintain a secondary market in the Notes after the Issue Date. The amount that you may receive upon sale of the Notes prior to maturity may be less than the principal amount of those Notes.
Listing:	None
Settlement:	DTC global notes
Terms Incorporated in the Master Note:	All of the terms appearing above the item captioned “Secondary Market” on the cover page and the pages P-2 and P-3 of this pricing supplement and the terms appearing under the caption “General Terms of the Notes” in the product prospectus supplement.

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#### ADDITIONAL TERMS OF YOUR NOTES

You should read this pricing supplement together with the prospectus dated January 8, 2016, as supplemented by the prospectus supplement dated January 8, 2016 and the product prospectus supplement dated January 8, 2016, relating to our Senior Global Medium-Term Notes, Series G, of which these Notes are a part. Capitalized terms used but not defined in this pricing supplement will have the meanings given to them in the product prospectus supplement. In the event of any conflict, this pricing supplement will control. The Notes vary from the terms described in the product prospectus supplement in several important ways. You should read this pricing supplement carefully.

This pricing supplement, together with the documents listed below, contains the terms of the Notes and supersedes all prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in “Risk Factors” in the prospectus supplement dated January 8, 2016 and in the product prospectus supplement dated January 8, 2016, as the Notes involve risks not associated with conventional debt securities. We urge you to consult your investment, legal, tax, accounting and other advisors before you invest in the Notes. You may access these documents on the Securities and Exchange Commission (the “SEC”) website at [www.sec.gov](http://www.sec.gov) as follows (or if that address has changed, by reviewing our filings for the relevant date on the SEC website):

Prospectus dated January 8, 2016:

<https://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>

Product Prospectus Supplement dated January 8, 2016:

<https://www.sec.gov/Archives/edgar/data/1000275/000114036116047446/form424b5.htm>

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

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#### HYPOTHETICAL EXAMPLES

The examples below are based on the following terms:

Hypothetical Initial Stock Price:	\$100.00*
Hypothetical Trigger Price and Coupon Barrier:	\$60.00, which is 60.00% of the hypothetical Initial Stock Price
Hypothetical Call Stock Price:	\$100.00, which is 100% of the Initial Stock Price
Observation Dates:	Quarterly
Principal Amount:	\$1,000 per Note

\* The hypothetical Initial Stock Price of \$100 used in the examples below has been chosen for illustrative purposes only and is not the actual Initial Stock Price. The actual Initial Stock Price is set forth on the cover page of this pricing supplement.

Final Stock Price	Reference Stock Return	Payment at Maturity (assuming that the Notes were not previously called)*
\$200.00	100%	\$1,000
\$190.00	90%	\$1,000
\$170.00	70%	\$1,000
\$150.00	50%	\$1,000
\$140.00	40%	\$1,000
\$130.00	30%	\$1,000
\$120.00	20%	\$1,000
\$110.00	10%	\$1,000
\$100.00	0%	\$1,000
\$90.00	-10%	\$1,000
\$80.00	-20%	\$1,000
\$70.00	-30%	\$1,000
\$60.00	-40%	\$1,000
\$50.00	-50%	\$500
\$40.00	-60%	\$400
\$30.00	-70%	\$300
\$10.00	-90%	\$100
\$0.00	-100%	\$0.00

\* Excluding any accrued but unpaid interest.

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The following examples illustrate how the payments at maturity set forth in the table above are calculated.

Example 1: The price of the Reference Stock increases to a Final Stock Price of \$150.00.

Because the Final Stock Price is greater than the Trigger Price, an investor will receive at maturity, in addition to the final contingent coupon payment on the Notes, a payment of \$1,000 per \$1,000 in principal amount of the Notes.

Example 2: The price of the Reference Stock decreases to a Final Stock Price of \$90.00.

Although the Final Stock Price is less than the Initial Stock Price, the Final Stock Price is above the Trigger Price.

Because the Final Stock Price is above the Trigger Price, an investor will receive at maturity, in addition to the final contingent coupon payment on the Notes, a payment of \$1,000 per \$1,000 in principal amount of the Notes.

Example 3: The price of the Reference Stock decreases to a Final Stock Price of \$40.00.

Because the Final Stock Price is less than the Trigger Price, no coupon will be payable for the final interest period, and an investor will receive an amount that will be calculated as follows:

$$\$1,000 + (\$1,000 \times \text{Reference Stock Return}) = \$1,000 + (\$1,000 \times -60\%) = \$1,000 - \$600 = \$400$$

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#### SELECTED RISK CONSIDERATIONS

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the Reference Stock. These risks are explained in more detail in the section “Risk Factors” beginning on page PS-5 of the product prospectus supplement. In addition to the risks described in the prospectus supplement and the product prospectus supplement, you should consider the following:

**Principal at Risk** — Investors in the Notes could lose all or a substantial portion of their principal amount if there is a decline in the trading price of the Reference Stock between the Trade Date and the Valuation Date. If the Notes are not automatically called and the Final Stock Price on the Valuation Date is less than the Trigger Price, the amount of cash that you receive at maturity will represent a loss of your principal that is proportionate to the decline in the closing price of the Reference Stock from the Trade Date to the Valuation Date. Any Contingent Coupons received on the Notes prior to the maturity date may not be sufficient to compensate for any such loss.

**The Notes Are Subject to an Automatic Call** — If on any Observation Date beginning on February 26, 2018, the closing price of the Reference Stock is greater than or equal to the Call Stock Price, then the Notes will be automatically called. If the Notes are automatically called, then, on the applicable Call Settlement Date, for each \$1,000 in principal amount, you will receive \$1,000 plus the Contingent Coupon otherwise due on that Call Settlement Date. You will not receive any coupon payments after the Call Settlement Date. You may be unable to reinvest your proceeds from the automatic call in an investment with a return that is as high as the return on the Notes would have been if they had not been called.

**You May Not Receive Any Contingent Coupons** — We will not necessarily make any coupon payments on the Notes. If the closing price of the Reference Stock on an Observation Date is less than the Coupon Barrier, we will not pay you the Contingent Coupon applicable to that Observation Date. If the closing price of the Reference Stock is less than the Coupon Barrier on each of the Observation Dates and on the Valuation Date, we will not pay you any Contingent Coupons during the term of, and you will not receive a positive return on, your Notes. Generally, the non-payment of the Contingent Coupon coincides with a period of greater risk of principal loss on your Notes. Accordingly, if we do not pay the Contingent Coupon for the final Observation Date on the Maturity Date, you will also incur a loss of principal, because the Final Stock Price will be less than the Trigger Price.

**The Call Feature and the Contingent Coupon Feature Limit Your Potential Return** — The return potential of the Notes is limited to the pre-specified Contingent Coupon Rate, regardless of the appreciation of the Reference Stock. In addition, the total return on the Notes will vary based on the number of Observation Dates on which the Contingent Coupon becomes payable prior to maturity or an automatic call. Further, if the Notes are called due to the Call Feature, you will not receive any Contingent Coupons or any other payment in respect of any Observation Dates after the applicable Call Settlement Date. Since the Notes could be called as early as February 26, 2018, the total return on the Notes could be limited to one year. If the Notes are not called, you may be subject to the full downside performance of the Reference Stock even though your potential return is limited to the Contingent Coupon Rate. As a result, the return on an investment in the Notes could be less than the return on a direct investment in the Reference Stock.

**Your Return May Be Lower than the Return on a Conventional Debt Security of Comparable Maturity** — The return that you will receive on the Notes, which could be negative, may be less than the return you could earn on other investments. Even if your return is positive, your return may be less than the return you would earn if you bought a conventional senior interest bearing debt security of Royal Bank.

**Payments on the Notes Are Subject to Our Credit Risk, and Changes in Our Credit Ratings Are Expected to Affect the Market Value of the Notes** — The Notes are Royal Bank’s senior unsecured debt securities. As a result, your receipt of the amount due on any relevant payment date is dependent upon Royal Bank’s ability to repay its obligations at that

time. This will be the case even if the price of the Reference Stock increases after the Trade Date. No assurance can be given as to what our financial condition will be during the term of the Notes.

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

**Owning the Notes Is Not the Same as Owning the Reference Stock** — The return on your Notes is unlikely to reflect the return you would realize if you actually owned the Reference Stock. For instance, you will not receive or be entitled to receive any dividend payments or other distributions on the securities held by GDX during the term of your Notes. As an owner of the Notes, you will not have voting rights or any other rights that holders of the Reference Stock may have. Furthermore, the Reference Stock may appreciate substantially during the term of the Notes, while your potential return will be limited to the applicable Contingent Coupon payments.

**There Is No Affiliation Between the Investment Advisor or the Index Sponsor and RBCCM, and RBCCM Is Not Responsible for any Disclosure by the Investment Advisor or the Index Sponsor** — We are not affiliated with the investment adviser of GDX or the index sponsor of its underlying index. However, we and our affiliates may currently, or from time to time in the future, engage in business with these entities. Nevertheless, neither we nor our affiliates assume any responsibilities for the accuracy or the completeness of any information that any other entity prepares. You, as an investor in the Notes, should make your own investigation into the Reference Stock and the companies in which it invests. None of these companies are involved in this offering, and have no obligation of any sort with respect to your Notes. These companies have no obligation to take your interests into consideration for any reason, including when taking any corporate actions that might affect the value of your Notes.

**Adjustments to the Reference Stock Could Adversely Affect the Notes** — Van Eck Associates Corporation (“Van Eck”), as the investment adviser of the GDX, is responsible for calculating and maintaining the Reference Stock. The investment adviser can add, delete or substitute the stocks comprising the Reference Stock. The investment adviser may make other methodological changes that could change the price of the Reference Stock at any time. If one or more of these events occurs, the calculation of the closing price of the Reference Stock on an Observation Date or of the amount payable at maturity may be adjusted to reflect such event or events. Consequently, any of these actions could affect the payments on the Notes and their market value at any time.

**Changes that Affect the Underlying Index of the Reference Stock Will Affect the Market Value of the Notes and the Amount You Will Receive at Maturity** — The policies of the sponsor of the underlying index of the Reference Stock concerning the calculation of that index, additions, deletions or substitutions of the components of that index and the manner in which changes affecting those components, such as stock dividends, reorganizations or mergers, may be reflected in that index and, therefore, could affect the share price of the Reference Stock, whether the Notes are called on an Observation Date, the amount payable on the Notes at maturity, if applicable, and the market value of the Notes prior to maturity. The amount payable on the Notes and their market value could also be affected if the sponsor changes these policies, for example, by changing the manner in which it calculates the index, or if the calculation or publication of the index is discontinued or suspended.

**Our Business Activities May Create Conflicts of Interest** — We and our affiliates expect to engage in trading activities related to the Reference Stock or the securities held by the Reference Stock that are not for the account of holders of the Notes or on their behalf. These trading activities may present a conflict between the holders’ interests in the Notes and the interests we and our affiliates will have in their proprietary accounts, in facilitating transactions, including

options and other derivatives transactions, for their customers and in accounts under their management. These trading activities, if they influence the prices of the Reference Stock, could be adverse to the interests of the holders of the Notes. We and one or more of our affiliates may, at present or in the future, engage in business with GDX or the issuers of the securities held by GDX, including making loans to or providing advisory services. These services

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could include investment banking and merger and acquisition advisory services. These activities may present a conflict between our or one or more of our affiliates' obligations and your interests as a holder of the Notes. Moreover, we and our affiliates may have published, and in the future expect to publish, research reports with respect to the Reference Stock. This research is modified from time to time without notice and may express opinions or provide recommendations that are inconsistent with purchasing or holding the Notes. Any of these activities by us or one or more of our affiliates may affect the price of the Reference Stock, and, therefore, the market value of the Notes.

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

**The Initial Estimated Value of the Notes on the Cover Page Is an Estimate Only, Calculated as of the Time the Terms of the Notes Were Set** – The initial estimated value of the Notes is based on the value of our obligation to make the payments on the Notes, together with the mid-market value of the derivative embedded in the terms of the Notes. See “Structuring the Notes” below. Our estimate is based on a variety of assumptions, including our credit spreads, expectations as to dividends, interest rates and volatility, and the expected term of the Notes. These assumptions are based on certain forecasts about future events, which may prove to be incorrect. Other entities may value the Notes or similar securities at a price that is significantly different than we do.

The value of the Notes at any time after the Trade Date will vary based on many factors, including changes in market conditions, and cannot be predicted with accuracy. As a result, the actual value you would receive if you sold the Notes in any secondary market, if any, should be expected to differ materially from the initial estimated value of your Notes.

**Market Disruption Events and Adjustments** – The payment at maturity, each Observation Date, and the Valuation Date are subject to adjustment as described in the product prospectus supplement. For a description of what constitutes a market disruption event as well as the consequences of that market disruption event, see “General Terms of the Notes—Market Disruption Events” in the product prospectus supplement.

**The Holdings of the VanEck Vectors Gold Miners ETF<sup>®</sup> Are Concentrated in the Gold and Silver Mining Industries** — All or substantially all of the stocks held by the GDX are issued by gold or silver mining companies. As a result, the stocks that will determine the performance of the GDX are concentrated in one sector. Although an investment in the Notes will not give holders any ownership or other direct interests in the stocks held by the GDX, the return on the Notes 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

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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 GDX reflects the performance of shares of gold and silver mining companies and not gold bullion or silver bullion. The GDX may under- or over-perform gold bullion and/or silver bullion over the term of the Notes.

Relationship to Gold and Silver Bullion — The GDX measures the performance of shares of gold and silver mining companies and not gold bullion or silver bullion. The GDX may under- or over-perform gold bullion and/or silver bullion over the term of the Notes.

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Auto-Callable Contingent Coupon Barrier Notes  
to the VanEck Vectors<sup>®</sup> Gold Miners ETF,  
Due February 27, 2020