ROYAL BANK OF CANADA
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April 24, 2019

RBC Capital Markets®	Filed Pursuant to Rule 433 Registration Statement No. 333-227001

The information in this preliminary terms supplement is not complete and may be changed.

Preliminary Terms Supplement Subject to Completion: Dated April 24, 2019 Pricing Supplement Dated April __, 2019 to the Product Prospectus Supplement No. CCBN-1, Dated September 10, 2018 and the Prospectus Supplement and the Prospectus, Each Dated September 7, 2018	\$ Auto-Callable Contingent Coupon Barrier Notes Linked to the Lesser Performing of Three Equity Exchange Traded Funds, Due May 4, 2021 Royal Bank of Canada

Royal Bank of Canada is offering Auto-Callable Contingent Coupon Barrier Notes (the "Notes") linked to the lesser performing of the shares of three exchange traded funds (each, a "Reference Stock," and collectively, the "Reference Stocks"). The Notes offered are senior unsecured obligations of Royal Bank of Canada, will pay a quarterly 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 terms supplement.

Reference Stocks	Initial Stock Prices*	Coupon Barriers and Trigger Prices
SPDR® S&P® Bank ETF ("KBE")		72.25% of its Initial Stock Price
SPDR® S&P® Biotech ETF ("XBI")		72.25% of its Initial Stock Price
Technology Select Sector SPDR® Fund ("XLK")		72.25% of its Initial Stock Price

* For each Reference Stock, the Initial Stock Price will be its closing price on the Trade Date.

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 September 10, 2018, on page S-1 of the prospectus supplement dated September 7, 2018, and "Selected Risk Considerations" beginning on page P-8 of this terms 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. The Notes are not subject to conversion into our common shares under subsection 39.2(2.3) of the Canada Deposit Insurance Corporation Act.

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

Issuer:	Royal Bank of Canada	Stock Exchange Listing:	None
Trade Date:	On or about April 29, 2019	Principal Amount:	\$1,000 per Note
Issue Date:	May 6, 2019	Maturity Date:	May 4, 2021
Observation Dates:	Quarterly, as set forth below.	Coupon Payment Dates:	Quarterly, as set forth below
Valuation Date:	April 29, 2021	Contingent Coupon Rate:	15.00% per annum

Contingent Coupon:	If the closing price of each Reference Stock is greater than or equal to its Coupon Barrier on the applicable Observation Date, we will pay the Contingent Coupon applicable to the corresponding Observation Date. You may not receive any Contingent Coupons during the term of the Notes.
Payment at Maturity (if held to maturity):	If the Notes are not previously called, we will pay you at maturity an amount based on the Final Stock Price of the Lesser Performing Reference Stock: For each $1,000 in principal amount, $1,000 plus the Contingent Coupon at maturity, unless the Final Stock Price of the Lesser Performing Reference Stock is less than its Trigger Price. If the Final Stock Price of the Lesser Performing Reference Stock is less than its 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 of the Lesser Performing Reference Stock) Investors in the Notes could lose some or all of their principal amount if the Final Stock Price of the Lesser Performing Reference Stock is less than its Trigger Price.
Lesser Performing Reference Stock:	The Reference Stock with the lowest Reference Stock Return.
Call Feature:	If the closing price of each Reference Stock is greater than or equal to its Initial Stock Price on any Observation Date, the Notes will be automatically called for 100% of their principal amount, plus the Contingent Coupon applicable to the corresponding Observation Date.
Call Settlement Dates:	The Coupon Payment Date corresponding to that Observation Date.
Final Stock Price:	For each Reference Stock, its closing price on the Valuation Date.
CUSIP:	78013X5Z7

	Per Note	Total
Price to public(1)	100.00%	$
Underwriting discounts and commissions(1)	1.75%	$
Proceeds to Royal Bank of Canada	98.25%	$

(1) Certain dealers who purchase the Notes for sale to certain fee-based advisory accounts may forego some or all of their underwriting discount or selling concessions. The public offering price for investors purchasing the Notes in these accounts may be between $982.50 and $1,000 per $1,000 in principal amount.

The initial estimated value of the Notes as of the Trade Date is expected to be between $951.36 and $971.36 per $1,000 in principal amount, and will be less than the price to public. The final pricing supplement relating to the Notes will set forth our estimate of the initial value of the Notes as of the Trade Date. 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.

If the Notes priced on the date of this terms supplement, RBC Capital Markets, LLC, which we refer to as RBCCM, acting as agent for Royal Bank of Canada, would receive a commission of approximately $17.50 per $1,000 in principal amount of the Notes and would use a portion of that commission to allow selling concessions to other dealers of up to approximately $17.50 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)" below.

RBC Capital Markets, LLC

Auto-Callable Contingent Coupon Barrier Notes
Linked to the Lesser Performing of
Three Exchange Traded Funds
Royal Bank of Canada

SUMMARY

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

General:	This terms supplement relates to an offering of Auto-Callable Contingent Coupon Barrier Notes (the "Notes") linked to the lesser performing of the shares of three exchange traded funds (the "Reference Stocks").
Issuer:	Royal Bank of Canada ("Royal Bank")
Trade Date:	On or about April 29, 2019
Issue Date:	May 6, 2019
Valuation Date:	April 29, 2021
Maturity Date:	May 4, 2021
Denominations:	Minimum denomination of $1,000, and integral multiples of $1,000 thereafter.
Designated Currency:	U.S. Dollars
Contingent Coupon:	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: • If the closing price of each Reference Stock is greater than or equal to its Coupon Barrier on the applicable Observation Date, we will pay the Contingent Coupon applicable to that Observation Date. • If the closing price of any of the Reference Stocks is less than its 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:	15.00% per annum (3.75% per quarter)
Observation Dates:	Quarterly, on July 29, 2019, October 29, 2019, January 29, 2020, April 29, 2020, July 29, 2020, October 29, 2020, January 29, 2021 and the Valuation Date.
Coupon Payment Dates:	The Contingent Coupon, if payable, will be paid quarterly on August 1, 2019, November 1, 2019, February 3, 2020, May 4, 2020, August 3, 2020, November 3, 2020, February 3, 2021 and the Maturity Date.
Record Dates:	The record date for each Coupon Payment Date will be one business day prior to that scheduled Coupon Payment Date; provided, however, that any Contingent Coupon payable at maturity or upon a call will be payable to the person to whom the payment at maturity or upon the call, as the case may be, will be payable.
Call Feature:	If, on any Observation Date, the closing price of each Reference Stock is greater than or equal to its Initial Stock Price, then the Notes will be automatically called.
Payment if Called:	If the Notes are automatically called, then, on the applicable Call Settlement Date, for each $1,000 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.

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Initial Stock Price:	For each Reference Stock, its closing price on the Trade Date.
Final Stock Price:	For each Reference Stock, its closing price on the Valuation Date.
Trigger Price and Coupon Barrier:	For each Reference Stock, 72.25% of its Initial Stock Price. The actual Trigger Prices and Coupon Barriers will be determined on the Trade Date.
Payment at Maturity (if not previously called and held to maturity):	If the Notes are not previously called, we will pay you at maturity an amount based on the Final Stock Price of the Lesser Performing Reference Stock: • If the Final Stock Price of the Lesser Performing Reference Stock is greater than or equal to its Trigger Price, we will pay you a cash payment equal to the principal amount plus the Contingent Coupon otherwise due on the Maturity Date. • If the Final Stock Price of the Lesser Performing Reference Stock is less than its 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 of the Lesser Performing Reference Stock) The amount of cash that you receive will be less than your principal amount, if anything, resulting in a loss that is proportionate to the decline of the Lesser Performing Reference Stock from the Trade Date to the Valuation Date. Investors in the Notes will lose some or all of their principal amount if the Final Stock Price of the Lesser Performing Reference Stock is less than its Trigger Price.
Stock Settlement:	Not applicable. Payments on the Notes will be made solely in cash.
Reference Stock Return:	With respect to each Reference Stock: Final Stock Price – Initial Stock Price Initial Stock Price
Lesser Performing Reference Stock:	The Reference Stock with the lowest Reference Stock Return.
Market Disruption Events:	The occurrence of a market disruption event (or a non-trading day) as to any of the Reference Stocks will result in the postponement of an Observation Date or the Valuation Date as to that Reference Stock, as described in the product prospectus supplement, but not to any non-affected Reference Stock.
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 Notes as a callable pre-paid cash-settled contingent income-bearing derivative contract linked to the Reference Stocks 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 September 10, 2018 under “Supplemental Discussion of U.S. Federal Income Tax Consequences,” which apply to the Notes.
Secondary Market:	RBCCM (or one of its affiliates), though not obligated to do so, may maintain a secondary market in the Notes after the Issue Date. The amount that you may receive upon sale of your Notes prior to maturity

may be less than the principal amount.

Listing:	The Notes will not be listed on any securities exchange.
Settlement:	DTC global (including through its indirect participants Euroclear and Clearstream, Luxembourg as described under "Description of Debt Securities—Ownership and Book-Entry Issuance" in the prospectus dated September 7, 2018).
Terms Incorporated in the Master Note:	All of the terms appearing above the item captioned "Secondary Market" on pages P-2 and P-3 of this terms supplement and the terms appearing under the caption "General Terms of the Notes" in the product prospectus supplement dated September 10, 2018, as modified by this terms supplement.

The Trade Date, issue date and other dates set forth above are subject to change, and will be set forth in the final pricing supplement relating to the Notes.

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ADDITIONAL TERMS OF YOUR NOTES

You should read this terms supplement together with the prospectus dated September 7, 2018, as supplemented by the prospectus supplement dated September 7, 2018 and the product prospectus supplement dated September 10, 2018, relating to our Senior Global Medium-Term Notes, Series H, of which these Notes are a part. Capitalized terms used but not defined in this terms supplement will have the meanings given to them in the product prospectus supplement. In the event of any conflict, this terms supplement will control. The Notes vary from the terms described in the product prospectus supplement in several important ways. You should read this terms supplement carefully.

This terms supplement, together with the documents listed below, contains the terms of the Notes and supersedes all prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in "Risk Factors" in the prospectus supplement dated September 7, 2018 and in the product prospectus supplement dated September 10, 2018, 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 website at www.sec.gov as follows (or if that address has changed, by reviewing our filings for the relevant date on the SEC website):

Prospectus dated September 7, 2018:
https://www.sec.gov/Archives/edgar/data/1000275/000121465918005973/l96181424b3.htm
Prospectus Supplement dated September 7, 2018:
https://www.sec.gov/Archives/edgar/data/1000275/000121465918005975/f97180424b3.htm
Product Prospectus Supplement dated September 10, 2018:
https://www.sec.gov/Archives/edgar/data/1000275/000114036118038091/form424b5.htm

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

Royal Bank of Canada has filed a registration statement (including a product prospectus supplement, a prospectus supplement, and a prospectus) with the SEC for the offering to which this terms supplement relates. Before you invest, you should read those documents and the other documents relating to this offering that we have filed with the SEC for more complete information about us and this offering. You may obtain these documents without cost by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, Royal Bank of Canada, any agent or any dealer participating in this offering will arrange to send you the product prospectus supplement, the prospectus supplement and the prospectus if you so request by calling toll-free at 1-877-688-2301.

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HYPOTHETICAL EXAMPLES

The table set out below is included for illustration purposes only. The table illustrates the Payment at Maturity of the Notes (including the final Contingent Coupon, if payable) for a hypothetical range of performance for the Lesser Performing Reference Stock, assuming the following terms and that the Notes are not automatically called prior to maturity:

Hypothetical Initial Stock Price (for each Reference Stock):	$100.00*
Hypothetical Trigger Price and Coupon Barrier (for each Reference Stock):	$72.25, which is 72.25% of its hypothetical Initial Stock Price (the actual Trigger Prices and Coupon Barriers will be determined on the Trade Date).
Contingent Coupon Rate:	15.00% per annum (or 3.75% per quarter)
Contingent Coupon Amount:	$37.50 per quarter
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 does not represent the expected actual Initial Stock Price of any Reference Stock. The actual Initial Stock Price for each Reference Stock will be set forth on the cover page of the final pricing supplement relating to the Notes. We make no representation or warranty as to which of the Reference Stocks will be the Lesser Performing Reference Stock. It is possible that the Final Stock Price of each Reference Stock will be less than its Initial Stock Price.

Hypothetical Final Stock Prices are shown in the first column on the left. The second column shows the Payment at Maturity for a range of Final Stock Prices on the Valuation Date. The third column shows the amount of cash to be paid on the Notes per $1,000 in principal amount. If the Notes are called prior to maturity, the hypothetical examples below will not be relevant, and you will receive on the applicable Coupon Payment Date, for each $1,000 principal amount, $1,000 plus the Contingent Coupon otherwise due on the Notes.

Hypothetical Final Stock Price of the Lesser Performing Reference Stock	Payment at Maturity as Percentage of Principal Amount	Payment at Maturity (assuming that the Notes were not previously called)
$150.00	103.75%	$1,037.50*
$140.00	103.75%	$1,037.50*
$125.00	103.75%	$1,037.50*
$120.00	103.75%	$1,037.50*
$110.00	103.75%	$1,037.50*
$100.00	103.75%	$1,037.50*
$90.00	103.75%	$1,037.50*
$80.00	103.75%	$1,037.50*
$72.25	103.75%	$1,037.50*
$72.24	72.24%	$722.40
$70.00	70.00%	$700.00
$60.00	60.00%	$600.00

$50.00	50.00%	$500.00
$40.00	40.00%	$400.00
$30.00	30.00%	$300.00
$20.00	20.00%	$200.00
$10.00	10.00%	$100.00
$0.00	0.00%	$0.00

*Including the final Contingent Coupon, if payable.

Hypothetical Examples of Amounts Payable at Maturity

The following hypothetical examples illustrate how the payments at maturity set forth in the table above are calculated, assuming the Notes have not been called.

Example 1: The price of the Lesser Performing Reference Stock increases by 40% from the Initial Stock Price of $100.00 to its Final Stock Price of $140.00. Because the Final Stock Price of the Lesser Performing Reference Stock is greater than its Trigger Price and Coupon Barrier, the investor receives at maturity, in addition to the final Contingent Coupon otherwise due on the Notes, a cash payment of $1,000 per Note, despite the 40% appreciation in the price of the Lesser Performing Reference Stock.

Example 2: The price of the Lesser Performing Reference Stock decreases by 10% from the Initial Stock Price of $100.00 to its Final Stock Price of $90.00. Because the Final Stock Price of the Lesser Performing Reference Stock is greater than its Trigger Price and Coupon Barrier, the investor receives at maturity, in addition to the final Contingent Coupon otherwise due on the Notes, a cash payment of $1,000 per Note, despite the 10% decline in the price of the Lesser Performing Reference Stock.

Example 3: The price of the Lesser Performing Reference Stock is $50.00 on the Valuation Date, which is less than its Trigger Price and Coupon Barrier. Because the Final Stock Price of the Lesser Performing Reference Stock is less than its Trigger Price and Coupon Barrier, the final Contingent Coupon will not be payable on the Maturity Date, and we will pay only $500.00 for each $1,000 in the principal amount of the Notes, calculated as follows:

Principal Amount + (Principal Amount x Reference Stock Return of the Lesser Performing Reference Stock)

= $1,000 + ($1,000 x -50.00%) = $1,000 - $500.00 = $500.00

* * *

The Payments at Maturity shown above are entirely hypothetical; they are based on prices of the Reference Stocks that may not be achieved on the Valuation Date and on assumptions that may prove to be erroneous. The actual market value of your Notes on the Maturity Date or at any other time, including any time you may wish to sell your Notes, may bear little relation to the hypothetical Payments at Maturity shown above, and those amounts should not be viewed as an indication of the financial return on an investment in the Notes or on an investment in any Reference Stock or the securities represented by any Reference Stock.

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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 Stocks. These risks are explained in more detail in the section "Risk Factors" in the product prospectus supplement. In addition to the risks described in the prospectus supplement and the product prospectus supplement, you should consider the following:

- 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 Lesser Performing Reference Stock between the Trade Date and the Valuation Date. If the Notes are not automatically called and the Final Stock Price of the Lesser Performing Reference Stock on the Valuation Date is less than its 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 Lesser Performing 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, the closing price of each Reference Stock is greater than or equal to its Initial 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 the applicable Call Settlement Date. You will not receive any Contingent Coupons 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 any of the Reference Stocks on an Observation Date is less than its Coupon Barrier, we will not pay you the Contingent Coupon applicable to that Observation Date. If the closing price of any of the Reference Stocks is less than its 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, this 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 on the Maturity Date, you will also incur a loss of principal, because the Final Stock Price of the Lesser Performing Reference Stock will be less than its Trigger Price.
- The Notes Are Linked to the Lesser Performing Reference Stock, Even if the Other Reference Stocks Perform Better — If any the Reference Stocks has a Final Stock Price that is less than its Trigger Price, your return will be linked to the lesser performing of the Reference Stocks. Even if the Final Stock Price of the other Reference Stocks have increased compared to their respective Initial Stock Prices, or have experienced a decrease that is less than that of the Lesser Performing Reference Stock, your return will only be determined by reference to the performance of the Lesser Performing Reference Stock, regardless of the performance of the other Reference Stocks.
- Your Payment on the Notes Will Be Determined by Reference to Each Reference Stock Individually, Not to a Basket, and the Payment at Maturity Will Be Based on the Performance of the Lesser Performing Reference Stock — The Payment at Maturity will be determined only by reference to the performance of the Lesser Performing Reference Stock, regardless of the performance of the other Reference Stocks. The Notes are not linked to a weighted basket, in which the risk may be mitigated and diversified among each of the basket components. For example, in the case of notes linked to a weighted basket, the return would depend on the weighted aggregate performance of the basket components reflected as the basket return. As a result, the depreciation of one basket component could be mitigated by the appreciation of the other basket components, as scaled by the weighting of those basket components. However, in the case of the Notes, the individual performance of each of the Reference Stocks would not be combined, and the depreciation of one Reference Stock would not be mitigated by any appreciation of the other Reference Stocks. Instead, your return will depend solely on the Final Stock Price of the Lesser Performing Reference Stock.

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- 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 Stocks. 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 the first Observation Date, the total return on the Notes could be minimal. If the Notes are not called, you may be subject to the full downside performance of the Lesser Performing 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 Stocks.
- 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 our senior unsecured debt securities. As a result, your receipt of any Contingent Coupons, if payable, and the amount due on any relevant payment date is dependent upon our ability to repay its obligations on the applicable payment dates. This will be the case even if the prices of the Reference Stocks increase after the Trade Date. No assurance can be given as to what our financial condition will be during the term of the Notes.
- There May Not Be an Active Trading Market for the Notes-Sales in the Secondary Market May Result in Significant Losses — There may be little or no secondary market for the Notes. The Notes will not be listed on any securities exchange. RBCCM and our other affiliates may make a market for the Notes; however, they are not required to do so. RBCCM or any other affiliate of ours 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.
- The Initial Estimated Value of the Notes Will Be Less than the Price to the Public — The initial estimated value that will be set forth in the final pricing supplement for the Notes 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 prices of the Reference Stocks, 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 by RBCCM for any secondary market price is expected to be based on the secondary rate rather than the internal funding rate used to price the Notes and determine the initial estimated value. As a result, the secondary price will be less than if the internal funding rate was used. The Notes are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Notes to maturity.
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The Initial Estimated Value of the Notes that We Will Provide in the Final Pricing Supplement Will Be an Estimate Only, Calculated as of the Time the Terms of the Notes Are Set — The initial estimated value of the Notes will be 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 will be based on a variety of assumptions, including our credit spreads, expectations as to dividends,

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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.

- An Investment in the Notes Is Subject to Risks Associated with Specific Economic Sectors— The stocks held by each exchange traded fund to which the Notes are linked are issued by companies engaged in a specific sector of the economy. Accordingly, an investment in the Notes is subject to the specific risks of companies that operate in each of those sectors. An investment in the Notes may accordingly be more risky than a security linked to a more diversified set of securities.
- Our Business Activities May Create Conflicts of Interest — We and our affiliates expect to engage in trading activities related to the securities represented by the Reference Stocks 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 share price or prices, as applicable, of the Reference Stocks, could be adverse to the interests of the holders of the Notes. We and one or more of our affiliates may, at present or in the future, engage in business with the securities represented by the Reference Stocks, including making loans to or providing advisory services. These services could include investment banking and merger and acquisition advisory services. These activities may present a conflict between our or one or more of our affiliates' obligations and your interests as a holder of the Notes. Moreover, we, and our affiliates may have published, and in the future expect to publish, research reports with respect to the Reference Stocks or securities represented by the Reference Stocks. 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 share price or prices, as applicable, of the Reference Stocks, and, therefore, the market value of the Notes.
- Owning the Notes Is Not the Same as Owning the Securities Represented by the Reference Stocks — The return on your Notes is unlikely to reflect the return you would realize if you actually owned shares of the Reference Stocks or the securities represented by the Reference Stocks. For instance, you will not receive or be entitled to receive any dividend payments or other distributions on these securities during the term of your Notes. As an owner of the Notes, you will not have voting rights or any other rights that holders of these securities may have. Furthermore, the Reference Stocks may appreciate substantially during the term of the Notes, while your potential return will be limited to the applicable Contingent Coupon payments.
- You Must Rely on Your Own Evaluation of the Merits of an Investment Linked to the Reference Stocks — In the ordinary course of their business, our affiliates may have expressed views on expected movements in the Reference Stocks or the equity securities that they represent, and may do so in the future. These views or reports may be communicated to our clients and clients of our affiliates. However, these views are subject to change from time to time. Moreover, other professionals who transact business in markets relating to any Reference Stock may at any time have significantly different views from those of our affiliates. For these reasons, you are encouraged to derive information concerning the Reference Stocks from multiple sources, and you should not rely solely on views expressed by our affiliates.
- Management Risk — The Reference Stocks are 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, each Reference Stock, 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 replicate its underlying index. Therefore, unless a specific security is removed from its underlying index, the Reference Stock generally would not sell a security because the security’s issuer was in financial trouble. In addition, each Reference Stock is subject to the risk that the investment strategy of its investment advisor may not produce the intended results.

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

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

- We and Our Affiliates Do Not Have Any Affiliation with the Advisor or the Sponsors of the Reference Stocks or the Underlying Indices and Are Not Responsible for Their Public Disclosure of Information — We and our affiliates are not affiliated with the investment advisor or the sponsors of any Reference Stock or their underlying indices in any way and have no ability to control or predict their actions, including any errors in or discontinuance of disclosure regarding its methods or policies relating to the Reference Stocks or the underlying indices. The investment advisor or the sponsors of the Reference Stocks and the underlying indices are not involved in the offering of the Notes in any way and have no obligation to consider your interests as an owner of the Notes in taking any actions relating to the Reference Stocks that might affect the value of the Notes. Neither we nor any of our affiliates has independently verified the adequacy or accuracy of the information about the investment advisor, the sponsors, or the Reference Stocks contained in any public disclosure of information. You, as an investor in the Notes, should make your own investigation into the Reference Stocks.

- The Policies of the Reference Stocks' Investment Advisers or Underlying Indices Could Affect the Amount Payable on the Notes and Their Market Value — The policies of the Reference Stocks' investment advisers concerning the management of the Reference Stocks, or the index sponsor for each underlying index, concerning the calculation of each underlying index, additions, deletions or substitutions of the securities held by the Reference Stocks could affect the market price of shares of the Reference Stocks and, therefore, the amount payable on the Notes on the maturity date and the market value of the Notes before that date. The amount payable on the Notes and their market value could also be affected if the Reference Stocks' investment advisers or relevant sponsors change these policies, for example, by changing the manner in which an investment adviser manages the Reference Stocks, or if the sponsor changes the manner in which it calculates the applicable index, or if a Reference Stock's investment adviser discontinues or suspends maintenance of a Reference Stock, in which case it may become difficult to determine the market value of the Notes. The Reference Stocks' investment advisers have no connection to the offering of the Notes and have no obligations to you as an investor in the Notes in making its decisions regarding the Reference Stocks.

- 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.

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INFORMATION REGARDING THE REFERENCE STOCKS

Information provided to or filed with the SEC by the Reference Stocks under the Securities Exchange Act of 1934, as amended, and the Investment Company Act of 1940, as amended, can be located through the SEC's website at http://www.sec.gov. In addition, information 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 following information regarding the Reference Stocks is derived from publicly available information.

We have not independently verified the accuracy or completeness of reports filed by the Reference Stocks with the SEC, information published by them on their websites or in any other format, information about them obtained from any other source or the information provided below.

Each Reference Stock is an investment portfolio maintained and managed by SSgA Funds Management, Inc. ("SSFM"). SSFM is the investment advisor to separate investment portfolios, including the Reference Stocks, each of which are offered by the Select Sector SPDR Trust, a registered investment company. The Notes are not sponsored, endorsed, sold or promoted by the investment adviser. The investment adviser makes no representations or warranties to the owners of the Notes or any member of the public regarding the advisability of investing in the Notes. The investment adviser has no obligation or liability in connection with the operation, marketing, trading or sale of the Notes.

We obtained the information regarding the historical performance of each Reference Stock set forth below from Bloomberg Financial Markets.

The SPDR® S&P® Bank ETF ("KBE")

The shares of the SPDR® S&P® Bank ETF are issued by the SPDR® Series Trust (the "trust"), a registered investment company. The KBE seeks investment results that, before fees and expenses, correspond generally to the total return performance of the S&P Banks Select Industry Index (the "index"). The KBE trades on the NYSE Arca under the ticker symbol "KBE". SSGA Funds Management, Inc. ("SSGA") currently serves as the investment advisor to the KBE. We obtained the following information in this section from the SPDR® website and the reports referenced below, in each case, without independent verification.

Investment Objective and Strategy

The KBE seeks to provide investment results that correspond generally to the total return performance, before fees and expenses, of the S&P Banks Select Industry Index (the "index").

The KBE uses a representative sampling strategy to try to achieve its investment objective, which means that the KBE is not required to purchase all of the securities represented in the underlying index. Instead, the KBE may purchase a subset of the securities in the underlying index in an effort to hold a portfolio of securities with generally the same risk and return characteristics of the underlying index. Under normal market conditions, the KBE generally invests substantially all, but at least 80%, of its total assets in the securities comprising the underlying index. In addition, the KBE may invest in equity securities not included in the underlying index, cash and cash equivalents or money market instruments, such as repurchase agreements and money market funds (including money market funds advised by SSGA).

In certain situations or market conditions, the KBE may temporarily depart from its normal investment policies and strategies provided that the alternative is consistent with the KBE's investment objective and is in the best interest of the KBE. For example, the KBE may make larger than normal investments in derivatives to maintain exposure to the underlying index if it is unable to invest directly in a component security.

The board may change the KBE's investment strategy, index and other policies without shareholder approval. The board may also change the KBE's investment objective without shareholder approval.

The S&P® Banks Select Industry™ Index

The S&P Banks Select Industry Index (Bloomberg symbol, "SPSIBK Index") is managed by S&P Dow Jones Indices LLC ("S&P") and is an equal-weighted index that is designed to measure the performance of stocks in the S&P Total Market Index that both (i) are classified under the Global Industry Classification Standard ("GICS®") in the asset management & custody banks, diversified banks, regional banks, other diversified financial services and thrifts & mortgage finance sub-industries and (ii) satisfy certain liquidity and market capitalization requirements. The S&P Total Market Index tracks all U.S. common stocks with a primary listing on the NYSE, NYSE Arca, NYSE American, Nasdaq Global Select Market, Nasdaq Select Market, Nasdaq Capital Market, Bats BZX, Bats BYX, Bats EDGA, Bats EDGX and IEX exchanges. The index is one of the 21 sub-industry sector indices S&P maintains that are derived from a portion of the stocks comprising the S&P Total Market Index. An equal-weighted index is one where every stock has the same weight in the underlying index. As such, the underlying index must be rebalanced from time to time to re-establish the proper weighting.

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Eligibility for Inclusion in the Index
Selection for the underlying index is based on a company's GICS® classification, as well as liquidity and market capitalization requirements. In addition, only U.S. companies are eligible for inclusion in the underlying index. GICS® classifications are determined by S&P using criteria it has selected or developed. Index and classification system sponsors may use very different standards for determining sector designations. In addition, many companies operate in a number of sectors, but are listed only in one sector. As a result, sector comparisons between indices with different sponsors may reflect differences in methodology as well as actual differences in the sector composition of the indices.
To be eligible for inclusion in the underlying index, stocks must be in the S&P Total Market Index and have a float-adjusted market capitalization above $2 billion with a float-adjusted liquidity ratio above 100%. The float-adjusted liquidity ratio is defined as the dollar value traded over the previous 12 months divided by the float-adjusted market capitalization as of the underlying index's rebalancing reference date. All stocks in the related GICS® sub-industries satisfying the above requirements are included in the underlying index and the total number of stocks in the underlying index should be at least 35. If there are fewer than 35 stocks in the underlying index, the market capitalization requirements may be relaxed to reach at least 22 stocks. With respect to liquidity, the length of time to evaluate liquidity is reduced to the available trading period for companies that recently became public or companies that were spun-off from other companies, the stocks of which therefore do not have 12 months of trading history.
Calculation of the Index
The price return index is calculated as the underlying index market value divided by the divisor. The total return calculation begins with the price return of the underlying index. Given the underlying index is an equal-weighted index, the market capitalization of each stock used in the calculation of the underlying index market value is redefined so that each stock has an equal weight in the underlying index on each rebalancing date. The adjusted market capitalization for each stock in the underlying index is calculated as the product of the stock price, the number of shares outstanding, the stock's float factor and the adjustment factor.
A stock's float factor refers to the number of shares outstanding that are available to investors. S&P indices exclude shares closely held by control groups from the underlying index calculation because such shares are not available to investors. For each stock, S&P calculates an Investable Weight Factor (IWF) which is the percentage of total shares outstanding that are included in the underlying index calculation.
The adjustment factor for each stock is assigned at each rebalancing date and is calculated by dividing a specific constant set for the purpose of deriving the adjustment factor (often referred to as modified index shares) by the number of stocks in the underlying index multiplied by the float adjusted market value of such stock on such rebalancing date.
Adjustments are also made to ensure that no stock in the underlying index will have a weight that exceeds the value that can be traded in a single day for a theoretical portfolio of $2 billion. Theoretical portfolio values are reviewed annually and any updates are made at the discretion of the index committee, as discussed below.
The maximum basket liquidity weight for each stock in the underlying index will be calculated using the ratio of its three-month median daily value traded to the theoretical portfolio value of $2 billion. Each stock's weight in the index is then compared to its maximum basket liquidity weight and is set to the lesser of (1) its maximum basket liquidity weight or (2) its initial equal weight. All excess weight is redistributed across the underlying index to the uncapped stocks. If necessary, a final adjustment is made to ensure that no stock in the underlying index has a weight greater than 4.5%. No further adjustments are made if the latter step would force the weight of those stocks limited to their maximum basket liquidity weight to exceed that weight. If the underlying index contains exactly 22 stocks as of the rebalancing effective date, the underlying index will be equally weighted without basket liquidity constraints.

If a company has more than one share class line in the S&P Total Market Index, such company will be represented once by the primary listing (generally the most liquid share line). In the event that a company issues a secondary share class to the index share class holders by means of a mandatory distribution, the newly issued share class line will be added to the underlying index on the distribution ex-date, provided that the distributed class is not considered to be de minimis. Both share class lines will then remain in the underlying index until the next rebalancing, at which time only the primary share class line will be considered for continued inclusion.

The index is calculated by using the divisor methodology used in all S&P equity indices. The index level is the index market value divided by the index divisor. In order to maintain index series continuity, it is also necessary to adjust the divisor at each rebalancing. Therefore, the divisor (after rebalancing) equals the index market value (after rebalancing) divided by the index value before rebalancing. The divisor keeps the underlying index comparable over time and is one manipulation point for adjustments to the index.

Maintenance of the Index

The composition of the underlying index is reviewed quarterly. Rebalancing occurs after the closing of the relevant U.S. trading markets on the third Friday of the month ending that quarter. The reference date for float-adjusted market capitalization and the float-adjusted liquidity ratio is after the closing of the last trading day of the previous month. The reference date for GICS® classification is as of the rebalancing effective date. Existing stocks in the index are removed at the quarterly rebalancing if either their float-adjusted capitalization falls below $1 billion or their float-adjusted liquidity ratio falls below 50%. A company will also be deleted from the index if the S&P Total Market Index deletes that company. Companies are added between rebalancings only if a company deletion causes the number of companies in the index to fall below 22. The newly added company will be added to the index at the weight of the deleted company. If the stock was deleted at $0.00, the newly added stock will be added at the deleted stock's previous day's closing value (or the most immediate prior business day that the deleted stock was not valued at $0.00) and an adjustment to the divisor will be made (only in the case of stocks removed at $0.00). At the next rebalancing, the index will be rebalanced based on the eligibility requirements and equal-weight methodology discussed above. In the case of GICS® changes, where a stock no longer qualifies to belong to the index after the classification change, it is removed from the index on the next rebalancing date. In the case of a spin-off, the spin-off company will be added to the index at a zero price after the close of the trading on the day before the ex-date. In general and subject to certain exceptions, both the parent company and spin-off companies will remain in the index until the next index rebalancing. In the case of mergers involving two index constituents, the merged entity will remain in the index provided that it meets all general eligibility requirements. The merged entity will be added to the index at the weight of the stock deemed to be the surviving stock in the transaction. The surviving stock will not experience a weight change and its subsequent weight will not be equal to that of the pre-merger weight of the merged entities.

Adjustments are made to the index in the event of certain corporate actions relating to the stocks included in the index, such as spin off, rights offerings, stock splits and special dividends.

Index Committee

The Americas Thematic and Strategy Index Committee (the "index committee") maintains the index and consists of full-time professional members of S&P staff. At monthly meetings, the index committee reviews pending corporate actions that may affect index constituents, statistics comparing the composition of the indices to the market, companies that are being considered as candidates for additions to the index and any significant market events. The index committee may also revise index policy, such as the rules for selecting constituents, the treatment of dividends, share counts or other matters.

The SPDR® S&P® Biotech ETF ("XBI")

The XBI seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P® Biotechnology Select Industry® Index (the "underlying index"). The underlying index represents the biotechnology sub-industry portion of the Standard & Poor's ("S&P") Total Market Index ("S&P TMI"), an index that measures the performance of the U.S. equity market. The XBI is composed of companies that are in the biotechnology sector. The XBI trades on NYSE Arca under the ticker symbol "XBI."

The XBI utilizes a "replication" investment approach in attempting to track the performance of the underlying index. The XBI typically invests in substantially all of the securities which comprise the underlying index in approximately the same proportions as the underlying index. The XBI will normally invest at least 80% of its total assets in the common stocks that comprise the underlying index.

The S&P® Biotechnology Select Industry® Index

This underlying index is an equal-weighted index that is designed to measure the performance of companies that operate in the applicable portion of the S&P TMI. Please see the preceding section relating to the KBE's underlying index for additional information about the S&P TMI.

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The Technology Select Sector SPDR® Fund ("XLK")

The XLK seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P® Technology Select Sector Index. The S&P® Technology Select Sector Index measures the performance of the technology sector of the U.S. equity market. The XLK trades on the NYSE Arca under the ticker symbol "XLK."

The XLK utilizes a "replication" investment approach in attempting to track the performance of the underlying index. The XLK typically invests in substantially all of the securities which comprise the underlying index in approximately the same proportions as underlying index. The XLK will normally invest at least 95% of its total assets in the common stocks that comprise the underlying index.

Eligibility Criteria for Index Components

The stocks included in each Select Sector Index are selected from the universe of companies represented by the S&P 500® Index. Standard & Poor's Financial Services LLC ("S&P") acts as index calculation agent in connection with the calculation and dissemination of each Select Sector Index. Each stock in the S&P 500® Index is allocated to only one Select Sector Index, and the Select Sector Indices together comprise all of the companies in the S&P 500® Index.

Index Maintenance

Each Select Sector Index was developed and is maintained in accordance with the following criteria:

- Each of the component stocks in a Select Sector Index (the "SPDR Component Stocks") is a constituent company of the S&P 500® Index.
- The nine Select Sector Indices together will include all of the companies represented in the S&P 500® Index and each of the stocks in the S&P 500® Index will be allocated to one and only one of the Select Sector Indices.
- Each constituent stock of the S&P 500® Index is assigned to a Select Sector Index on the basis of that company's sales and earnings composition and the sensitivity of the company's stock price and business results to the common factors that affect other companies in each Select Sector Index.
- S&P has sole control over the removal of stocks from the S&P 500® Index and the selection of replacement stocks to be added to the S&P 500® Index. However, S&P plays only a consulting role in the Select Sector Indices.
- Each Select Sector Index is calculated by S&P using a modified "market capitalization" methodology. This design ensures that each of the component stocks within a Select Sector Index is represented in a proportion consistent with its percentage with respect to the total market capitalization of that Select Sector Index. However, under certain conditions, the number of shares of a component stock within the Select Sector Index may be adjusted to conform to certain Internal Revenue Code requirements.

Calculation of the Underlying Index

Each Select Sector Index is calculated using the same methodology utilized by S&P in calculating the S&P 500® Index, using a base–weighted aggregate methodology. The daily calculation of each Select Sector Index is computed by dividing the total market value of the companies in the Select Sector Index by a number called the index divisor.

A SPDR® Component Stock which has been assigned to one Select Sector Index may be determined to have undergone a transformation in the composition of its business, and that it should be removed from that Select Sector Index and assigned to a different Select Sector Index. In the event that a SPDR® Component Stock's Select Sector Index assignment should be changed, S&P will disseminate notice of the change following its standard procedure for announcing index changes, and will implement the change in the affected Select Sector Indexes on a date no less than one week after the initial dissemination of information on the sector change to the maximum extent practicable.

SPDR® Component Stocks removed from and added to the S&P 500® Index will be deleted from and added to the appropriate Select Sector Index on the same schedule used by S&P for additions and deletions from the S&P 500® Index insofar as practicable.

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HISTORICAL INFORMATION

The graphs below set forth the information relating to the historical performance of the Reference Stocks. We obtained the information regarding the historical performance of the Reference Stocks in the graphs below from Bloomberg Financial Markets.

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

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Historical Information for the SPDR® S&P® Bank ETF (“KBE”)
The graph below illustrates the performance of this Reference Stock from January 1, 2009 to April 23, 2019, assuming an Initial Stock Price of $44.76, which was its closing price on April 23, 2019. The red line represents a hypothetical Coupon Barrier and Trigger Price of $32.34, which is equal to 72.25% of its closing price on April 23, 2019, rounded to two decimal places. The actual Coupon Barrier and Trigger Price will be based on the closing price of this Reference Stock on the Trade Date.

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Historical Information for the SPDR® S&P® Biotech ETF (“XBI”)
The graph below illustrates the performance of this Reference Stock from January 1, 2009 to April 23, 2019, assuming an Initial Stock Price of $86.92, which was its closing price on April 23, 2019. The red line represents a hypothetical Coupon Barrier and Trigger Price of $62.80, which is equal to 72.25% of its closing price on April 23, 2019, rounded to two decimal places. The actual Coupon Barrier and Trigger Price will be based on the closing price of this Reference Stock on the Trade Date.

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Historical Information for the Technology Select Sector the SPDR® Fund ("XLK")
The graph below illustrates the performance of this Reference Stock from January 1, 2009 to April 23, 2019, assuming an Initial Stock Price of $78.85, which was its closing price on April 23, 2019. The red line represents a hypothetical Coupon Barrier and Trigger Price of $56.97, which is equal to 72.25% of its closing price on April 23, 2019, rounded to two decimal places. The actual Coupon Barrier and Trigger Price will be based on the closing price of this Reference Stock on the Trade Date.

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SUPPLEMENTAL DISCUSSION OF
U.S. FEDERAL INCOME TAX CONSEQUENCES

The following disclosure supplements, and to the extent inconsistent supersedes, the discussion in the product prospectus supplement dated September 10, 2018 under "Supplemental Discussion of U.S. Federal Income Tax Consequences."

Under Section 871(m) of the Code, a "dividend equivalent" payment is treated as a dividend from sources within the United States. Such payments generally would be subject to a 30% U.S. withholding tax if paid to a non-U.S. holder. Under U.S. Treasury Department regulations, payments (including deemed payments) with respect to equity-linked instruments ("ELIs") that are "specified ELIs" may be treated as dividend equivalents if such specified ELIs reference an interest in an "underlying security," which is generally any interest in an entity taxable as a corporation for U.S. federal income tax purposes if a payment with respect to such interest could give rise to a U.S. source dividend. However, the IRS has issued guidance that states that the U.S. Treasury Department and the IRS intend to amend the effective dates of the U.S. Treasury Department regulations to provide that withholding on dividend equivalent payments will not apply to specified ELIs that are not delta-one instruments and that are issued before January 1, 2021. Based on our determination that the Notes are not delta-one instruments, non-U.S. holders should not be subject to withholding on dividend equivalent payments, if any, under the Notes. However, it is possible that the Notes could be treated as deemed reissued for U.S. federal income tax purposes upon the occurrence of certain events affecting the Reference Stocks or the Notes, and following such occurrence the Notes could be treated as subject to withholding on dividend equivalent payments. Non-U.S. holders that enter, or have entered, into other transactions in respect of the Reference Stocks or the Notes should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the Notes and their other transactions. If any payments are treated as dividend equivalents subject to withholding, we (or the applicable withholding agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

The accompanying product prospectus supplement notes that FATCA withholding on payments of gross proceeds from a sale or redemption of Notes will only apply to payments made after December 31, 2018. That discussion is modified to reflect regulations proposed by the U.S. Treasury Department in December 2018 indicating an intent to eliminate the requirement under FATCA of withholding on gross proceeds of the disposition of financial instruments. The U.S. Treasury Department has indicated that taxpayers may rely on these proposed regulations pending their finalization. Prospective investors are urged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in the Notes.

SUPPLEMENTAL PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

We expect that delivery of the Notes will be made against payment for the Notes on or about May 6, 2019, which is the fifth (5^{th}) business day following the Trade Date (this settlement cycle being referred to as "T+5"). See "Plan of Distribution" in the prospectus dated September 7, 2018. For additional information as to the relationship between us and RBCCM, please see the section "Plan of Distribution—Conflicts of Interest" in the prospectus dated September 7, 2018.

We expect to deliver the Notes on a date that is greater than two business days following the Trade Date. Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade the Notes more than two business days prior to the original Issue Date will be required to specify alternative arrangements to prevent a failed settlement.

In the initial offering of the Notes, they will be offered to investors at a purchase price equal to par, except with respect to certain accounts as indicated on the cover page of this document.

The value of the Notes shown on your account statement may be based on RBCCM's estimate of the value of the Notes if RBCCM or another of our affiliates were to make a market in the Notes (which it is not obligated to do). That estimate will be based upon the price that RBCCM may pay for the Notes in light of then prevailing market conditions, our creditworthiness and transaction costs. For a period of approximately 6 months after the issue date of the Notes, the value of the Notes that may be shown on your account statement may be higher than RBCCM's estimated value of the Notes at that time. This is because the estimated value of the Notes will not include the underwriting discount and our hedging costs and profits; however, the value of the Notes shown on your account statement during that period may initially be a higher amount, reflecting the addition of RBCCM's underwriting discount and our estimated costs and profits from hedging the Notes. This excess is expected to decrease over time until the end of this period. After this period, if RBCCM repurchases your Notes, it expects to do so at prices that reflect their estimated value.

We may use this terms supplement in the initial sale of the Notes. In addition, RBCCM or another of our affiliates may use this terms 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 terms supplement is being used in a market-making transaction.

STRUCTURING THE NOTES

The Notes are our debt securities, the return on which is linked to the performance of the Reference Stocks. As is the case for all of our debt securities, including our structured notes, the economic terms of the Notes reflect our actual or perceived creditworthiness at the time of pricing. In addition, because structured notes result in increased operational, funding and liability management costs to us, we typically borrow the funds under these Notes at a rate that is more favorable to us than the rate that we might pay for a conventional fixed or floating rate debt security of comparable maturity. Using this relatively lower implied borrowing rate rather than the secondary market rate, is a factor that is likely to reduce the initial estimated value of the Notes at the time their terms are set. Unlike the estimated value that will be included in the final pricing supplement, any value of the Notes determined for purposes of a secondary market transaction may be based on a different funding rate, which may result in a lower value for the Notes than if our initial internal funding rate were used.

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

The lower implied borrowing rate is a factor that reduces the economic terms of the Notes to you. The initial offering price of the Notes also reflects the underwriting commission and our estimated hedging costs. These factors result in the initial estimated value for the Notes on the Trade Date being less than their public offering price. See “Selected Risk Considerations—The Initial Estimated Value of the Notes Will Be Less than the Price to the Public” above.