ROYAL BANK OF CANADA Form FWP February 14, 2018

	Filed Pursuant to Rule 433 Registration Statement No. 333-20	08507		
Pricing Supplement Dated February, 2018 to the Product Prospectus Supplement	\$ Auto-Callable Contingent Coupor Linked to the Lesser Performing o Traded Funds and One Equity Ind 2020 Royal Bank of Canada	of Two E	xchange	
Royal Bank of Canada is offering Auto-Callable Contingent Coupon Barrier Notes (the "Notes") linked to the lesser performing of two exchange traded funds and one equity index (each, a "Reference Asset" and collectively, the "Reference Assets"). 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 Assets	Initial I	Levels*	Coupon Barriers	and Trigger Levels
iShares [®] MSCI Emergin	ng Markets ETF ("EEM")		79.85% of its In	itial Level
iShares [®] MSCI EAFE E	TF ("EFA")		79.85% of its In	itial Level
NASDAQ-100 [®] Index ("NDX")		79.85% of its In	itial Level
* For the EEM and EFA, the Initial Level will be their respective closing prices, and for the NDX, its closing level, 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 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 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. Neither the Securities and Exchange Commission 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 F	Exchange Listing:	None
Trade Date:	February 21, 2018		al Amount:	\$1,000 per Note
Issue Date:	February 26, 2018	Maturit		February 26, 2020
Observation Dates: Valuation Date:	Quarterly, as set forth below. February 21, 2020	-	-	Quarterly, as set forth below : 15.00% per annum

Contingent Coupon:	If the Observation Level of each Reference Coupon Barrier on the applicable Observa Coupon applicable to the corresponding O Contingent Coupons during the term of the If the Notes are not previously called, we	ation Date, with the second se	we will pay the Contingent Date. You may not receive any u at maturity an amount based	
Payment at Maturity (if held to maturity):	For each \$1,000 in principal amount, \$1,0 unless the Final Level of the Lesser Perfor Trigger Level. If the Final Level of the Lesser Performin Level, then the investor will receive at ma a cash payment equal to: \$1,000 + (\$1,000 x Reference Asset Retu Asset) Investors in the Notes could lose some or	al Level of the Lesser Performing Reference Asset is less than its Trigger n the investor will receive at maturity, for each \$1,000 in principal amount,		
Lesser Performing Reference Asset:	The Reference Asset with the lowest Reference Asset Return.			
Call Feature:	If the Observation Level of each Reference Asset is greater than or equal Level on any Observation Date, the Notes will be automatically called for their principal amount, plus the Contingent Coupon applicable to the cor- Observation Date.		omatically called for 100% of	
Call Settlement Dates:	The Coupon Payment Date corresponding	g to that Obs	servation Date.	
Observation Level:	For the EEM and EFA, their respective closing prices, and for the NDX, its closing level, on any Observation Date.			
Final Level:	For the EEM and EFA, their respective closing prices on the Valuation Date, and for the NDX, its closing level on the Valuation Date.			
CUSIP:	78013XGA0			
		Per Note	Total	
	Price to public	100.00%	\$	
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The to public	100.0070	Ψ	
Underwriting discounts and commissions	1.75%	\$	
Proceeds to Royal Bank of Canada	98.25%	\$	

The initial estimated value of the Notes as of the date of this terms supplement is \$973.04 per \$1,000 in principal amount, which is 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, which will not be less than \$[] per \$1,000 in principal amount. 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. 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

SUMMARY

The information in this "Summary" section is qualified by the more detailed information set forth in this terms supplement, the prospectus supplement, the prospectus supplement, and the prospectus. This terms supplement relates to an offering of Auto-Callable Contingent Coupon Barrier No.

	This terms supplement relates to an offering of Auto-Callable Contingent Coupon Barrier Notes
	(the "Notes") linked to the lesser performing of of the following (each, a "Reference Asset", and
	collectively, the "Reference Assets"):
General:	(i) the shares of iShares [®] MSCI Emerging Markets ETF (the "EEM");
	(ii) the shares of iShares [®] MSCI EAFE ETF (the "EFA," and together with the EEM, the "ETFs"); and
	(iii) the NASDAQ-100 [®] Index (the "NDX").
	See "Additional Terms of your Notes Related to Indices" below, which relates to the NDX.
Issuer:	Royal Bank of Canada ("Royal Bank")
Issue:	Senior Global Medium-Term Notes, Series G
Trade Date:	February 21, 2018
Issue Date:	February 26, 2018
Term:	Approximately two (2) years
Denominations:	Minimum denomination of \$1,000, and integral multiples of \$1,000 thereafter.
Designated	U.S. Dollars
Currency:	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 Observation Level of each Reference Asset is greater than or equal to its Coupon Barrier
	on the applicable Observation Date, we will pay the Contingent Coupon applicable to that
Contingent	Observation Date.
Coupon:	· If the Observation Level of any Reference Asset is less than its Coupon Barrier on the
I	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	15.00% per annum (3.75% per quarter)
Coupon Rate:	
Observation	Quarterly on May 21, 2018, August 21, 2018, November 21, 2018, February 21, 2019, May 21,
Dates:	2019, August 21, 2019, November 21, 2019 and the Valuation Date.
Coupon Payment	The Contingent Coupon, if applicable, will be paid quarterly on May 24, 2018, August 24, 2018,
Dates:	November 27, 2018, February 26, 2019, May 24, 2019, August 26, 2019, November 26, 2019 and
	the Maturity Date.
	The record date for each Coupon Payment Date will be the date one business day prior to that
Record Dates:	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.
	If, on any Observation Date, the Observation Level of each Reference Asset is greater than or equal
Call Feature:	to its Initial Level, then the Notes will be automatically called.
Payment if Called	d: If the Notes are automatically called, then, on the applicable Call Settlement Date, for each \$1,000
r agment ir curiet	principal amount, you will receive \$1,000 plus the Contingent Coupon otherwise due on that Call

Settlement Date.

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Auto-Callable Contingent Coupon Barrier Notes Linked to the Lesser Performing of Two Exchange Traded Funds and One Equity Index, Due February 26, 2020 Royal Bank of Canada

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 21, 2020
Maturity Date:	February 26, 2020
Initial Level	For the EEM and the EFA, their respective closing prices, and for the NDX, its closing level, on the Trade Date.
Final Level:	For the EEM and the EFA, their respective closing prices, and for the NDX, its closing level, on the Valuation Date.
Level:	For the EEM and the EFA, their respective closing prices, and for the NDX, its closing level, on any Observation Date.
Trigger Level and Coupon Barrier:	For each Reference Asset, 79.85% of its Initial Level.
Payment at Maturity (if not previously called and held to maturity): Stock Settlement: Reference Asset	If the Notes are not previously called, we will pay you at maturity an amount based on the Final Level of the Lesser Performing Reference Asset: If the Final Level of the Lesser Performing Reference Asset is greater than or equal to its Trigger Level, 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 Level of the Lesser Performing Reference Asset is less than its Trigger Level, you will receive at maturity, for each \$1,000 in principal amount, a cash payment equal to: \$1,000 + (\$1,000 x Reference Asset Return of the Lesser Performing Reference Asset) 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 Asset from the Trade Date to the Valuation Date. Investors in the Notes could lose some or all of their principal amount if the Final Level of the Lesser Performing Reference Asset is below its Trigger Level. Not applicable. Payments on the Notes will be made solely in cash. With respect to each Reference Asset: Final Level – Initial Level
Return: Lesser Performing Reference	Initial Level The Reference Asset with the lowest Reference Asset Return.
Asset: Market Disruption Events: Calculation Agent:	The occurrence of a market disruption event (or a non-trading day) as to any of the Reference Assets will result in the postponement of an Observation Date or the Valuation Date as to that Reference Asset, as described in the product prospectus supplement, but not to any non-affected Reference Asset. 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 linked to the Reference Assets 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
Secondary Market:	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. 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.

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Auto-Callable Contingent Coupon Barrier Notes Linked to the Lesser Performing of Two Exchange Traded Funds and One Equity Index, Due February 26, 2020 Royal Bank of Canada

Listing: The Notes will not be listed on any securities exchange. 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 January 8, 2016).
Terms All of the terms appearing above the item captioned "Secondary Market" on the cover page and pages Incorporated in 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 January 8, 2016, as modified by this terms Note: supplement.

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ADDITIONAL TERMS OF YOUR NOTES

You should read this terms 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 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, including "-Additional Terms Relating to Indices" below, which relate to the NDX.

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 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 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:

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

Prospectus Supplement dated January 8, 2016:

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

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 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 Asset, assuming the following terms and that the Notes are not automatically called prior to maturity:

Hypothetical Trigger Level and Coupon	79.85% of the hypothetical Initial Level of the Lesser Performing
Barrier:	Reference Asset
Hypothetical Contingent Coupon Rate:	15.00% per annum (or 3.75% per quarter)
Hypothetical Contingent Coupon Amount:	\$37.50 per quarter
Observation Dates:	Quarterly
Principal Amount:	\$1,000 per Note

We make no representation or warranty as to which of the Reference Assets will be the Lesser Performing Reference Asset. It is possible that the Final Level of each Reference Asset will be less than its Initial Level.

Hypothetical Final Levels of the Lesser Performing Reference Asset, expressed as a percentage of its Initial Level, are shown in the first column on the left. The second column shows the Payment at Maturity for a range of Reference Asset Returns 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.

Final Level of the Lesser Performing Reference Asset (%)	Payment at Maturity as Percentage of Principal Amount	Cash Payment Amount per \$1,000 in Principal Amount
130.00%	100.00%	\$1,037.50*
120.00%	100.00%	\$1,037.50*
110.00%	100.00%	\$1,037.50*
100.00%	100.00%	\$1,037.50*
90.00%	100.00%	\$1,037.50*
80.00%	100.00%	\$1,037.50*
79.85%	100.00%	\$1,037.50*
79.84%	79.84%	\$798.40
70.00%	70.00%	\$700.00
60.00%	60.00%	\$600.00
50.00%	50.00%	\$500.00
40.00%	40.00%	\$400.00
25.00%	25.00%	\$250.00
0.00%	0.00%	\$0.00

*Including the final Contingent Coupon, if payable.

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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 Final Level of the Lesser Performing Reference Asset is 120%, an increase of 20% from its Initial Level. Because the Final Level of the Lesser Performing Reference Asset is greater than its Trigger Level and Coupon Barrier of 79.85%, the investor receives at maturity, in addition to the final Contingent Coupon of \$37.50 otherwise due on the Notes, a cash payment of \$1,000 per Note, despite the 20% appreciation in the value of the Lesser Performing Reference Asset.

Example 2: The Final Level of the Lesser Performing Reference Asset is 90.00%, a decrease of 10% from its Initial Level. Because the Final Level of the Lesser Performing Reference Asset is greater than its Trigger Level and Coupon Barrier of 79.85%, the investor receives at maturity, in addition to the final Contingent Coupon of \$37.50 otherwise due on the Notes, a cash payment of \$1,000 per Note, despite the 10% decline in the value of the Lesser Performing Reference Asset.

Example 3: The Final Level of the Lesser Performing Reference Asset is 50.00% on the Valuation Date, which is less than its Trigger Level of 79.85%. Because the Final Level of the Lesser Performing Reference Asset is less than its Trigger Level 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 Asset Return of the Lesser Performing Reference Asset) = \$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 values of the Reference Assets 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 Asset or the securities included in any of the Reference Assets.

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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 Assets. 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 value of the Lesser Performing Reference Asset between the Trade Date and the Valuation Date. If the Notes are not automatically called and the Final Level of the Lesser Performing Reference Asset on the Valuation • Date is less than its Trigger Level, 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 or closing level, as applicable, of the Lesser Performing Reference Asset 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 (other than the Valuation Date), the Observation Level of each Reference Asset is greater than or equal to its Initial Level, 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 Observation Level of any of the Reference Assets 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 Observation Level of any of the Reference Assets 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 Level of the Lesser Performing Reference Asset will be less than its Trigger Level. The Notes Are Linked to the Lesser Performing Reference Asset, Even if the Other Reference Assets Perform Better — If any of the Reference Assets has a Final Level that is less than its Trigger Level, your return will be linked to the lesser Performing of the three Reference Assets. Even if the Final Levels of the other Reference Assets have increased compared to their respective Initial Levels, or have experienced a decrease that is less than that of the Lesser Performing Reference Asset, your return will only be determined by reference to the performance of the Lesser Performing Reference Assets.

•Your Payment on the Notes Will Be Determined by Reference to Each Reference Asset Individually, Not to a Basket, and the Payment at Maturity Will Be Based on the Performance of the Lesser Performing Reference Asset — The Payment at Maturity will be determined only by reference to the performance of the Lesser Performing Reference Asset, regardless of the performance of the other Reference Assets. 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 that basket component. However, in the case of the Notes, the individual performance of each of the Reference Assets would not be combined, and the depreciation of one Reference Asset would not be mitigated by any appreciation of the other Reference Assets.

Instead, your return will depend solely on the Final Level of the Lesser Performing Reference Asset. 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 Assets. 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 Asset 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 Assets.

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.

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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 values of the Reference Assets increase after the Trade Date. No assurance can be given as to what our financial condition will be at any time 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 set forth on the cover page and 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 or levels of the Reference Assets, 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.

The Initial Estimated Value of the Notes on the Cover Page of this Terms Supplement and that We Will Provide in the Final Pricing Supplement Are Estimates 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 estimates are 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.

Owning the Notes Is Not the Same as Owning the ETFs or the Securities Represented by the NDX — The return on your Notes is unlikely to reflect the return you would realize if you actually owned shares of the ETFs or the securities represented by the NDX. 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 Assets may appreciate substantially during the term of the Notes, while your potential return will be limited to the applicable Contingent Coupon payments.

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Auto-Callable Contingent Coupon Barrier Notes Linked to the Lesser Performing of Two Exchange Traded Funds and One Equity Index, Due February 26, 2020 Royal Bank of Canada

Prior to Maturity, the Value of the Notes Will Be Influenced by Many Unpredictable Factors — Many economic and market factors will influence the value of the Notes. We expect that, generally, the price or level of each Reference Asset on any day will affect the value of the Notes more than any other single factor. However, you should not expect the value of the Notes in the secondary market to vary in proportion to changes in the value of the Reference Assets. The value of the Notes will be affected by a number of other factors that may either offset or magnify each other, including:

Øthe market value of the Reference Assets;

Ø whether the market value of one or more of the Reference Assets is below the Coupon Barrier or the Trigger Level; Ø the expected volatility of the Reference Assets;

Øthe time to maturity of the Notes;

Ø the dividend rate on the Reference Assets or on the equity securities represented by the Reference Assets;

 \emptyset interest and yield rates in the market generally, as well as in the markets of the equity securities represented by the Reference Assets;

 \emptyset the occurrence of certain events relating to a Reference Asset that may or may not require an adjustment to the Initial Level, the Coupon Barrier and the Trigger Level;

economic, financial, political, regulatory or judicial events that affect the Reference Assets or the equity securities Ørepresented by the Reference Assets or stock markets generally, and which may affect the market value of the Reference Assets on any Observation Date;

 \emptyset the exchange rates and the volatility of the exchange rates between the U.S. dollar and the currencies in which the equity securities represented by the EEM and the EFA are traded; and

Øour creditworthiness, including actual or anticipated downgrades in our credit ratings.

Some or all of these factors will influence the price you will receive if you choose to sell your Notes prior to maturity. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You may have to sell your Notes at a substantial discount from the principal amount if the market value of the Reference Assets is at, below or not sufficiently above their Initial Levels, the Coupon Barrier or the Trigger Level.

Our Business Activities May Create Conflicts of Interest — We and our affiliates expect to engage in trading activities related to the securities included in or represented by the Reference Assets 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 or levels of the Reference Assets, 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 included in or represented by the Reference Assets, 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 Assets or securities included in or represented by the Reference Assets 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 prices or levels of the Reference Assets and, therefore, the market value of the Notes.

•Market Disruption Events and Adjustments — The Payment at Maturity, each Observation Date and the Valuation Date are subject to adjustment as to each Reference Asset 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 and the section "Additional Terms of the Notes" below.

You Must Rely on Your Own Evaluation of the Merits of an Investment Linked to the Reference Assets — In the ordinary course of their business, our affiliates may have expressed views on expected movement in the Reference Assets 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 Asset may at any time have significantly different views from those of our affiliates.

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For these reasons, you are encouraged to derive information concerning the Reference Assets from multiple sources, and you should not rely solely on views expressed by our affiliates.

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

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

Management Risk — The ETFs 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 ETF, 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 ETF generally would not sell a security because the security's issuer was in financial trouble. In addition, each ETF is subject to the risk that the investment strategy of its investment advisor may not produce the intended results.

The Policies of the ETFs' Investment Adviser Could Affect the Amount Payable on the Notes and Their Market Value — The policies of the ETFs' investment adviser concerning the management of the ETFs, additions, deletions or substitutions of the securities held by the ETFs could affect the market price of shares of the ETFs 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 ETFs' investment adviser changes these policies, for example, by changing the manner in which it manages the ETFs, or if the ETFs' investment adviser discontinues or suspends maintenance of the ETFs, in which case it may become difficult to determine the market value of the Notes. The ETFs' 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 ETFs.

An Investment in Notes Linked to the EEM or the EFA Is Subject to Risks Associated with Foreign Securities Markets — The Underlying Indices of the EEM and the EFA track the value of certain foreign equity securities. You should be aware that investments in securities linked to the value of foreign equity securities involve particular risks. The foreign securities markets comprising these Underlying Indices may have less liquidity and may be more volatile than U.S. or other securities markets and market developments may affect foreign markets differently from U.S. or other securities markets. Direct or indirect government intervention to stabilize these foreign securities markets, as well as cross-shareholdings in foreign companies, may affect trading prices and volumes in these markets. Also, there is generally less publicly available information about foreign companies than about those U.S. companies that are

subject to the reporting requirements of the U.S. Securities and Exchange Commission, and foreign companies are subject to accounting, auditing and financial reporting standards and requirements that differ from those applicable to U.S. reporting companies.

Prices of securities in foreign countries are subject to political, economic, financial and social factors that apply in those geographical regions. These factors, which could negatively affect those securities markets, include the possibility of recent or future changes in a foreign government's economic and fiscal policies, the possible imposition of, or changes in, currency exchange laws or other laws or restrictions applicable to foreign companies or investments in foreign equity securities and the possibility of fluctuations in the rate of exchange between currencies, the possibility of outbreaks of hostility and political instability and the possibility of natural disaster or adverse public health developments in the region. Moreover, foreign economies may differ favorably or unfavorably from the U.S. economy in important respects such as growth of gross national product, rate of inflation, capital reinvestment, resources and self-sufficiency.

Emerging Markets Risk — Investments in securities linked directly or indirectly to emerging market equity securities, such as the EEM, involve many risks, including, but not limited to: economic, social, political, financial and military conditions in the emerging market; regulation by national, provincial, and local governments; less liquidity and ·smaller market capitalizations than exist in the case of many large U.S. companies; different accounting and disclosure standards; and political uncertainties. Stock prices of emerging market companies may be more volatile and may be affected by market developments differently than U.S. companies. Government intervention to stabilize securities markets and cross-shareholdings may affect prices and volume of trading of the

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securities of emerging market companies. Economic, social, political, financial and military factors could, in turn, negatively affect such companies' value. These factors could include changes in the emerging market government's economic and fiscal policies, possible imposition of, or changes in, currency exchange laws or other laws or restrictions applicable to the emerging market companies or investments in their securities, and the possibility of fluctuations in the rate of exchange between currencies. Moreover, emerging market economies may differ favorably or unfavorably from the U.S. economy in a variety of ways, including growth of gross national product, rate of inflation, capital reinvestment, resources and self-sufficiency. You should carefully consider the risks related to emerging markets, to which the Notes are highly susceptible, before making a decision to invest in the Notes. Notes Linked to the EEM and the EFA Are Subject to Foreign Currency Exchange Rate Risk — The share prices of the EEM and EFA will each fluctuate based upon its net asset value, which will in turn depend in part upon changes in the value of the currencies in which the stocks held by these Reference Assets are traded. Accordingly, investors in notes linked to the EEM and EFA will be exposed to currency exchange rate risk with respect to each of the currencies in which the stocks held by the EEM and EFA are traded. An investor's net exposure will depend on the extent to which these currencies strengthen or weaken against the U.S. dollar. If, the dollar strengthens against these currencies, the net asset value of the applicable Reference Asset will be adversely affected and the price of the applicable Reference Asset may decrease.

Changes that Affect an Index Will Affect the Market Value of the Notes and the Payments on the Notes - The policies of the sponsor of each of the MSCI Emerging Markets Index (which underlies the EEM), the MSCI EAFE Index (which underlies the EFA) or the NDX concerning the calculation of the applicable 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 the index and, therefore, could affect the amounts payable on the Notes at maturity, and the market value of the Notes prior to maturity. The amounts payable on the Notes and their market value could also be affected if the index sponsor changes these policies, for example, by changing the manner in which it calculates the index, or if the index sponsor discontinues or suspends calculation or publication of the index, in which case it may become difficult to determine the market value of the Notes. We Have No Affiliation with any Index Sponsor and Will Not Be Responsible for any Actions Taken by an Index Sponsor - No index sponsor is an affiliate of ours or will be involved in the offering of the Notes in any way. Consequently, we have no control of the actions of any index sponsor, including any actions of the type that might impact the value of the Notes. No index sponsor has any obligation of any sort with respect to the Notes. Thus, no index sponsor has any obligation to take your interests into consideration for any reason, including in taking any actions that might affect the value of the Notes. None of our proceeds from the issuance of the Notes will be delivered to any index sponsor.

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ADDITIONAL TERMS OF YOUR NOTES RELATED TO INDICES

Closing Level

The closing level of the NDX on any trading day will equal its closing level published following the regular official weekday close of trading on that trading day.

A "trading day" as to the NDX means a day on which the principal trading market for that index is open for trading. Unavailability of the Level of an Index

If the sponsor of the NDX discontinues publication of that index and its sponsor or another entity publishes a successor or substitute index that the calculation agent determines, in its sole discretion, to be comparable to the discontinued index (such successor or substitute index being referred to in this section as a "successor index"), then any subsequent index closing level will be determined by reference to the published level of that successor index at the regular weekday close of trading on the applicable trading day.

Upon any selection by the calculation agent of a successor index, the calculation agent will provide written notice to the trustee of the selection, and the trustee will furnish written notice thereof, to the extent the trustee is required to under the senior debt indenture, to each noteholder, or in the case of global notes, the depositary, as holder of the global notes.

If a successor index is selected by the calculation agent, that successor index will be used as a substitute for that index for all purposes, including for purposes of determining whether a market disruption event exists with respect to that index.

If the sponsor of the NDX discontinues publication of that index prior to, and that discontinuance is continuing on, any trading day on which the level of that index must be determined, and the calculation agent determines, in its sole discretion, that no successor index is available at that time, then the calculation agent will determine the level of that index for the relevant date in accordance with the formula for and method of calculating that index last in effect prior to the discontinuance, without rebalancing or substitution, using the closing level (or, if trading in the relevant underlying securities or components of that index have been materially suspended or materially limited, its good faith estimate of the closing level that would have prevailed but for that suspension or limitation) at the close of the principal trading session of the relevant exchange on that date of each security or component most recently comprising that index. Notwithstanding these alternative arrangements, discontinuance of the publication of the NDX may adversely affect the value of your Notes.

If at any time the method of calculating a closing level for the NDX or a successor index is changed in a material respect, or if the NDX is in any other way modified so that it does not, in the opinion of the calculation agent, fairly represent the level of the NDX had those changes or modifications not been made, then, from and after that time, the calculation agent will, at the close of business in New York City on the applicable trading day, make such calculations and adjustments as, in the good faith judgment of the calculation agent, may be necessary in order to arrive at a level of an index comparable to the NDX as if those changes or modifications had not been made. Accordingly, if the method of calculating the NDX is modified so that the value of the NDX is a fraction of what it would have been if it had not been modified (e.g., due to a split in the NDX), then the calculation agent will adjust the NDX in order to arrive at a value of the NDX as if it had not been modified (e.g., as if such split had not occurred Index Market Disruption Events

A "market disruption event" with respect to the NDX means any event, circumstance or cause which we determine, and the calculation agent confirms, has or will have a material adverse effect on our ability to perform our obligations under the Notes or to hedge our position in respect of our obligations to make payment of amounts owing thereunder and more specifically includes the following events to the extent that they have such effect with respect to the NDX: a suspension, absence or limitation of trading in index components constituting 20% or more, by weight, of the NDX;

a suspension, absence or limitation of trading in futures or options contracts relating to an index on their respective markets;

any event that disrupts or impairs, as determined by the calculation agent, the ability of market participants to (i) effect transactions in, or obtain market values for, index components constituting 20% or more, by weight, of the NDX, or (ii) effect transactions in, or obtain market values for, futures or options contracts relating to the NDX on their respective markets;

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the closure on any day of the primary market for futures or options contracts relating to the NDX or index components constituting 20% or more, by weight, of the NDX on a scheduled trading day prior to the scheduled weekday closing time of that market (without regard to after hours or any other trading outside of the regular trading session hours) unless such earlier closing time is announced by the primary market at least one hour prior to the earlier of (i) the actual closing time for the regular trading session on such primary market on such scheduled trading day for such primary market and (ii) the submission deadline for orders to be entered into the relevant exchange system for execution at the close of trading on such scheduled trading day for such primary market;

any scheduled trading day on which (i) the primary markets for index components constituting 20% or more, by weight, of the NDX or (ii) the exchanges or quotation systems, if any, on which futures or options contracts on the NDX are traded, fails to open for trading during its regular trading session; or

any other event, if the calculation agent determines in its sole discretion that the event interferes with our ability or the ability of any of our affiliates to unwind all or a portion of a hedge with respect to the Notes that we or our affiliates have effected or may effect.

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INFORMATION REGARDING THE REFERENCE ASSETS

We have derived the following information regarding each of the Reference Assets from publicly available documents. We have not independently verified the accuracy or completeness of the following information. The selection of the Reference Assets is not a recommendation to buy or sell the shares of any security. Neither we nor any of our affiliates make any representation to you as to the performance of any of the Reference Assets. Information provided to or filed with the SEC under the Securities Exchange Act of 1934 and the Investment Company Act of 1940 relating to each Reference Asset that is an ETF may be obtained through the SEC's website at http://www.sec.gov.

iShares[®] MSCI Emerging Markets ETF ("EEM") and iShar®sMSCI EAFE ETF (the "EFA") iShares consists of numerous separate investment portfolios (the "iShares Funds"), including the applicable Reference Asset. Each of these Reference Assets seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of their respective underlying indices. These Reference Assets typically earn income from dividends from securities held by the Reference Assets. These amounts, net of expenses and taxes (if applicable), are passed along to these Reference Assets' shareholders as "ordinary income." In addition, the Reference Assets realizes capital gains or losses whenever they sell securities. Net long-term capital gains are distributed to their respective shareholders as "capital gain distributions." However, because the Notes are linked only to the share price of the applicable Reference Asset or any equivalent payments.

"iShare®" and "BlackRoe® are registered trademarks of BlackRoc®. The Notes are not sponsored, endorsed, sold, or promoted by BlackRock®, or by any of the iShares® Funds. Neither BlackRock® nor the iShares® Funds make any representations or warranties to the owners of any of the Notes or any member of the public regarding the advisability of investing in any of the Notes. Neither BlackRock® nor the iShares® Funds shall have any obligation or liability in connection with the registration, operation, marketing, trading, or sale of any of the Notes or in connection with our use of information about any of the Reference Assets or any of the iShares® Funds. The EFA

The iShares[®] MSCI EAFE ETF trades on the NYSE Arca under the ticker symbol "EFA." The Advisor employs a technique known as representative sampling to track the MSCI EAFE Index. The EFA generally invests at least 90% of its assets in the securities of the MSCI EAFE Index and in American Depositary Receipts or Global Depositary Receipts based on the securities of the MSCI EAFE Index. The EFA may invest the remainder of its assets in securities not included in the MSCI EAFE Index, but which the Advisor believes will help the EFA track the MSCI EAFE Index, or in futures contracts, options on futures contracts, other types of options and swaps related to the MSCI EAFE Index, as well as cash and cash equivalents, including shares of money market funds affiliated with the Advisor or its affiliates. The Advisor will waive portfolio management fees in an amount equal to the portfolio management fees of such other iShares funds for any portion of the EFA's assets invested in shares of such other funds.

The MSCI EAFE Index

The information below is included only to give insight to the MSCI EAFE Index, the performance of which the EFA attempts to reflect. The Notes are linked to the performance of the EFA and not to the MSCI EAFE Index. We have derived all information contained in this document regarding the MSCI EAFE Index, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. The MSCI EAFE Index is a stock index calculated, published and disseminated daily by MSCI, Inc. ("MSCI"), a majority-owned subsidiary of Morgan Stanley, through numerous data vendors, on the MSCI website and in real time on Bloomberg Financial Markets and Reuters Limited. Neither MSCI nor Morgan Stanley has any obligation to continue to calculate

and publish, and may discontinue calculation and publication of the MSCI EAFE Index

The MSCI EAFE Index is a free float-adjusted market capitalization index with a base date of December 31, 1969 and an initial value of 100. The MSCI EAFE Index is calculated daily in U.S. dollars and published in real time every 60 seconds during market trading hours. The MSCI EAFE Index currently consists of the following 21 developed countries: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, The Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom. The MSCI EAFE Index is comprised of companies in both the Large Cap Index and Mid Cap Index, as discussed in the section "—Defining Market Capitalization Size Segments for Each Market" below. The MSCI EAFE Index is part of the MSCI Regional Equity Indices series and is an MSCI Global Investable Market Index, which is a family within the MSCI International Equity Indices.

The EEM

The EEM trades on the NYSE Arca under the ticker symbol "EEM." The Advisor employs a technique known as representative sampling to track the MSCI Emerging Markets Index. The EEM generally invests at least 90% of its assets in the securities of the MSCI Emerging Markets Index and in American Depositary Receipts or Global Depositary Receipts based on the securities of the MSCI Emerging Markets Index. The EEM may invest the remainder of its assets in securities not included in the MSCI Emerging Markets Index, but

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which the Advisor believes will help the EEM track the MSCI Emerging Markets Index, or in futures contracts, options on futures contracts, other types of options and swaps related to the MSCI Emerging Markets Index, as well as cash and cash equivalents, including shares of money market funds affiliated with the Advisor or its affiliates. The Advisor will waive portfolio management fees in an amount equal to the portfolio management fees of such other iShares funds for any portion of the EEM's assets invested in shares of such other funds.

The MSCI Emerging Markets Index

The information below is included only to give insight to the MSCI Emerging Markets Index, the performance of which the EEM attempts to reflect. The Notes are linked to the performance of the EEM and not to the MSCI Emerging Markets Index. We have derived all information contained in this document regarding the MSCI Emerging Markets Index, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. The MSCI Emerging Markets Index is a stock index calculated, published and disseminated daily by MSCI, Inc. ("MSCI"), a majority-owned subsidiary of Morgan Stanley, through numerous data vendors, on the MSCI website and in real time on Bloomberg Financial Markets and Reuters Limited. Neither MSCI nor Morgan Stanley has any obligation to continue to calculate and publish, and may discontinue calculation and publication of the MSCI Emerging Markets Index

The MSCI Emerging Markets Index is intended to measure equity market performance in the global emerging markets. The MSCI Emerging Markets Index is a free float-adjusted market capitalization index with a base date of December 31, 1987 and an initial value of 100. The MSCI Emerging Markets Index is calculated daily in U.S. dollars and published in real time every 60 seconds during market trading hours. The MSCI Emerging Markets Index currently consists of the following 24 emerging market country indices: Brazil, Chile, China, Colombia, Czech Republic, Greece, Egypt, Hungary, India, Indonesia, South Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates. The MSCI Emerging Markets Index, which is a family within the MSCI International Equity Indices.

General - MSCI Indices

MSCI provides global equity indices intended to measure equity performance in international markets and the MSCI International Equity Indices are designed to serve as global equity performance benchmarks. In constructing these indices, MSCI applies its index construction and maintenance methodology across developed, emerging, and frontier markets.

MSCI enhanced the methodology used in its MSCI International Equity Indices. The MSCI Standard and MSCI Small Cap Indices, along with the other MSCI equity indices based on them, transitioned to the global investable market indices methodology described below. The transition was completed at the end of May 2008. The Enhanced MSCI Standard Indices are composed of the MSCI Large Cap and Mid Cap Indices. The MSCI Global Small Cap Index transitioned to the MSCI Small Cap Index resulting from the Global Investable Market Indices methodology and contains no overlap with constituents of the transitioned MSCI Standard Indices. Together, the relevant MSCI Large Cap, Mid Cap, and Small Cap Indices will make up the MSCI investable market index for each country, composite, sector, and style index that MSCI offers.

Constructing the MSCI Global Investable Market Indices. MSCI undertakes an index construction process, which involves:

·defining the equity universe;

 \cdot determining the market investable equity universe for each market;

 \cdot determining market capitalization size segments for each market;

 \cdot applying index continuity rules for the MSCI Standard Index;

- creating style segments within each size segment within each
- market; and

·classifying securities under the Global Industry Classification Standard (the "GICS").

Defining the Equity Universe. The equity universe is defined by:

Identifying Eligible Equity Securities: the equity universe initially looks at securities listed in any of the countries in the MSCI Global Index Series, which will be classified as either Developed Markets ("DM") or Emerging Markets ·("EM"). All listed equity securities, including Real Estate Investment Trusts, are eligible for inclusion in the equity universe. Conversely, mutual funds, ETFs, equity derivatives and most investment trusts are not eligible for inclusion in the equity universe.

Classifying Eligible Securities into the Appropriate Country: each company and its securities (i.e., share classes) are classified in only one country.

Effective with the November 2015 semi-annual index review, companies traded outside of their country of classification (i.e., "foreign listed companies") became eligible for inclusion in the MSCI Country Investable Market Indexes along with the applicable MSCI Global Index. In order for a MSCI Country Investable Market Index to be eligible to include foreign listed companies, it must meet the Foreign

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Listing Materiality Requirement. To meet the Foreign Listing Materiality Requirement, the aggregate market capitalization of all securities represented by foreign listings should represent at least (i) 5% of the free float-adjusted market capitalization of the relevant MSCI Country Investable Market Index and (ii) 0.05% of the free-float adjusted market capitalization of the MSCI ACWI Investable Market Index.

Determining the Market Investable Equity Universes. A market investable equity universe for a market is derived by applying investability screens to individual companies and securities in the equity universe that are classified in that market. A market is equivalent to a single country, except in DM Europe, where all DM countries in Europe are aggregated into a single market for index construction purposes. Subsequently, individual DM Europe country indices within the MSCI Europe Index are derived from the constituents of the MSCI Europe Index under the global investable market indices methodology.

The investability screens used to determine the investable equity universe in each market are as follows: Equity Universe Minimum Size Requirement: this investability screen is applied at the company level. In order to be ·included in a market investable equity universe, a company must have the required minimum full market capitalization.

Equity Universe Minimum Free Float–Adjusted Market Capitalization Requirement: this investability screen is applied at the individual security level. To be eligible for inclusion in a market investable equity universe, a security must have a free float–adjusted market capitalization equal to or higher than 50% of the equity universe minimum size requirement.

DM and EM Minimum Liquidity Requirement: This investability screen is applied at the individual security level. To be eligible for inclusion in a market investable equity universe, a security must have adequate liquidity. The twelve-month and three-month Annual Traded Value Ratio ("ATVR"), a measure that screens out extreme daily trading volumes and takes into account the free float–adjusted market capitalization size of securities, together with the three-month frequency of trading are used to measure liquidity. A minimum liquidity level of 20% of three- and twelve-month ATVR and 90% of three-month frequency of trading over the last four consecutive quarters are required for inclusion of a security in a market investable equity universe of a DM, and a minimum liquidity level of 15% of three- and twelve-month ATVR and 80% of three-month frequency of trading over the last four consecutive quarters are required for inclusion of a security in a market investable equity universe of a DM.

Global Minimum Foreign Inclusion Factor Requirement: this investability screen is applied at the individual security level. To be eligible for inclusion in a market investable equity universe, a security's Foreign Inclusion Factor ("FIF") must reach a certain threshold. The FIF of a security is defined as the proportion of shares outstanding that is • available for purchase in the public equity markets by international investors. This proportion accounts for the available free float of and/or the foreign ownership limits applicable to a specific security (or company). In general, a security must have an FIF equal to or larger than 0.15 to be eligible for inclusion in a market investable equity universe.

Minimum Length of Trading Requirement: this investability screen is applied at the individual security level. For an initial public offering ("IPO") to be eligible for inclusion in a market investable equity universe, the new issue must have started trading at least three months before the implementation of a semi–annual index review (as described below). This requirement is applicable to small new issues in all markets. Large IPOs are not subject to the minimum length of trading requirement and may be included in a market investable equity universe and the Standard Index outside of a Quarterly or Semi–Annual Index Review.

•Minimum Foreign Room Requirement: this investability screen is applied at the individual security level. For a security that is subject to a foreign ownership limit to be eligible for inclusion in a market investable equity universe, the proportion of shares still available to foreign investors relative to the maximum allowed (referred to as "foreign

room") must be at least 15%.

Defining Market Capitalization Size Segments for Each Market. Once a market investable equity universe is defined, it is segmented into the following size-based indices:

·Investable Market Index (Large + Mid + Small);

•Standard Index (Large + Mid);

·Large Cap Index;

 $\cdot Mid$ Cap Index; or

 $\cdot \text{Small Cap Index.}$

Creating the size segment indices in each market involves the following steps:

·defining the market coverage target range for each size segment;

·determining the global minimum size range for each size segment;

·determining the market size segment cutoffs and associated segment number of companies;

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·assigning companies to the size segments; and

·applying final size-segment investability requirements.

Index Continuity Rules for the Standard Indices. In order to achieve index continuity, as well as to provide some basic level of diversification within a market index, and notwithstanding the effect of other index construction rules described in this section, a minimum number of five constituents will be maintained for a DM Standard Index and a minimum number of three constituents will be maintained for an EM Standard Index.

Creating Style Indices within Each Size Segment. All securities in the investable equity universe are classified into value or growth segments using the MSCI Global Value and Growth methodology.

Classifying Securities under the Global Industry Classification Standard. All securities in the global investable equity universe are assigned to the industry that best describes their business activities. To this end, MSCI has designed, in conjunction with S&P Dow Jones Indexes, the GICS. Under the GICS, each company is assigned to one sub–industry according to its principal business activity. Therefore, a company can belong to only one industry grouping at each of the four levels of the GICS.

Index Maintenance

The MSCI Global Investable Market Indices are maintained with the objective of reflecting the evolution of the underlying equity markets and segments on a timely basis, while seeking to achieve index continuity, continuous investability of constituents and replicability of the indices, index stability and low index turnover. In particular, index maintenance involves:

(i) Semi–Annual Index Reviews ("SAIRs") in May and November of the Size Segment and Global Value and Growth Indices which include:

·updating the indices on the basis of a fully refreshed equity universe;

•taking buffer rules into consideration for migration of securities across size and style segments; and undating EIEs and Number of Shares ("NOS")

• updating FIFs and Number of Shares ("NOS").

(ii) Quarterly Index Reviews in February and August of the Size Segment Indices aimed at:

·including significant new eligible securities (such as IPOs that were not eligible for earlier inclusion) in the index; allowing for significant moves of companies within the Size Segment Indices, using wider buffers than in the SAIR; and

·reflecting the impact of significant market events on FIFs and updating NOS.

(iii) Ongoing Event–Related Changes: changes of this type are generally implemented in the indices as they occur. Significantly large IPOs are included in the indices after the close of the company's tenth day of trading.

None of us, the dealer or any of our other affiliates accepts any responsibility for the calculation, maintenance, or publication of, or for any error, omission, or disruption in, the index or any successor to the index.

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NASDAQ-100® Index ("NDX")

The NASDAQ-100[®] Index ("NDX") is a modified market capitalization-weighted index of 100 of the largest stocks of both U.S. and non-U.S. non-financial companies listed on The NASDAQ Stock Market based on market capitalization. It does not contain securities of financial companies, including investment companies. The NASDAQ-100[®] Index, which includes companies across a variety of major industry groups, was launched on January 31, 1985, with a base index value of 250.00. On January 1, 1994, the base index value was reset to 125.00. The NASDAQ OMX Group, Inc. publishes the NDX. Current information regarding the market value of the NDX is available from NASDAQ OMX Group, Inc. ("NASDAQ OMX") as well as numerous market information services. The share weights of the component securities of the NDX at any time are based upon the total shares outstanding in each of those securities and are additionally subject, in certain cases, to rebalancing. Accordingly, each underlying stock's influence on the level of the NDX is directly proportional to the value of its share weight. Index Calculation

At any moment in time, the level of the NDX equals the aggregate value of the then-current share weights of each of the component securities, which are based on the total shares outstanding of each such component security, multiplied by each such security's respective last sale price on The NASDAQ Stock Market (which may be the official closing price published by The NASDAQ Stock Market), and divided by a scaling factor (the "divisor"), which becomes the basis for the reported level of the NDX. The divisor serves the purpose of scaling such aggregate value to a lower order of magnitude, which is more desirable for reporting purposes.

Underlying Stock Eligibility Criteria and Annual Ranking Review

Initial Eligibility Criteria

To be eligible for initial inclusion in the NDX, a security must be listed on The NASDAQ Stock Market and meet the following criteria:

the security's U.S. listing must be exclusively on the NASDAQ Global Select Market or the NASDAQ Global Market;

·the security must be issued by a non-financial company;

·the security may not be issued by an issuer currently in bankruptcy proceedings;

the security must generally be a common stock, ordinary share, American Depositary Receipt, or tracking stock (closed-end funds, convertible debentures, exchange traded funds, limited liability companies, limited partnership interests, preferred stocks, rights, shares or units of beneficial interests, warrants, units and other derivative securities are not included in the NDX, nor are the securities of investment companies);

•the security must have a three-month average daily trading volume of at least 200,000 shares;

- if the security is issued by an issuer organized under the laws of a jurisdiction outside the United States, it must have ·listed options on a recognized market in the United States or be eligible for listed-options trading on a recognized options market in the United States;
- the issuer of the security may not have entered into a definitive agreement or other arrangement which would likely result in the security no longer being eligible;
- the issuer of the security may not have annual financial statements with an audit opinion that is currently withdrawn; and

the issuer of the security must have "seasoned" on the NASDAQ Stock Market or another recognized market

 \cdot (generally, a company is considered to be seasoned if it has been listed on a market for at least three full months, excluding the first month of initial listing).

Continued Eligibility Criteria

In addition, to be eligible for continued inclusion in the NDX the following criteria apply:

the security's U.S. listing must be exclusively on the NASDAQ Global Select Market or the NASDAQ Global Market;

·the security must be issued by a non-financial company;

•the security may not be issued by an issuer currently in bankruptcy proceedings;

the security must have an average daily trading volume of at least 200,000 shares in the previous three-month trading period as measured annually during the ranking review process described below;

if the issuer of the security is organized under the laws of a jurisdiction outside the United States, then such security •must have listed options on a recognized market in the United States or be eligible for listed-options trading on a recognized options market in the United States, as measured annually during the ranking review process;

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the issuer of the security may not have entered into a definitive agreement or other arrangement that would likely result in the security no longer being eligible;

the security must have an adjusted market capitalization equal to or exceeding 0.10% of the aggregate adjusted market capitalization of the NDX at each month-end. In the event that a company does not meet this criterion for two consecutive month-ends, it will be removed from the NDX effective after the close of trading on the third Friday of the following month; and

•the issuer of the security may not have annual financial statements with an audit opinion that is currently withdrawn. These eligibility criteria may be revised from time to time by NASDAQ OMX without regard to the Notes. Annual Ranking Review

The component securities are evaluated on an annual basis (the "Ranking Review"), except under extraordinary circumstances, which may result in an interim evaluation, as follows. Securities that meet the applicable eligibility criteria are ranked by market value. eligible securities that are already in the NDX and that are ranked in the top 100 eligible securities (based on market capitalization) are retained in the NDX. A security that is ranked 101 to 125 is also retained, provided that such security was ranked in the top 100 eligible securities as of the previous Ranking Review or was added to the NDX subsequent to the previous Ranking Review. Securities not meeting such criteria are replaced. The replacement securities chosen are those eligible securities not currently in the NDX that have the largest market capitalization. The data used in the ranking includes end of October market data and is updated for total shares outstanding submitted in a publicly filed SEC document via EDGAR through the end of November.

Replacements are made effective after the close of trading on the third Friday in December. Moreover, if at any time during the year other than the Ranking Review, a component security is determined by NASDAQ OMX to become ineligible for continued inclusion in the NDX, the security will be replaced with the largest market capitalization security meeting the eligibility criteria listed above and not currently included in the NDX. Index Maintenance

In addition to the Ranking Review, the securities in the NDX are monitored every day by NASDAQ OMX with respect to changes in total shares outstanding arising from corporate events, such as stock dividends, stock splits and certain spin-offs and rights issuances. NASDAQ OMX has adopted the following quarterly scheduled weight adjustment procedures with respect to those changes. If the change in total shares outstanding arising from a corporate action is greater than or equal to 10%, that change will be made to the NDX as soon as practical, normally within ten days of such corporate action. Otherwise, if the change in total shares outstanding is less than 10%, then all such changes are accumulated and made effective at one time on a quarterly basis after the close of trading on the third Friday in each of March, June, September and December.

In either case, the share weights for those component securities are adjusted by the same percentage amount by which the total shares outstanding have changed in those securities. Ordinarily, whenever there is a change in the share weights, a change in a component security, or a change to the price of a component security due to spin-off, rights issuances or special cash dividends, NASDAQ OMX adjusts the divisor to ensure that there is no discontinuity in the level of the NDX that might otherwise be caused by any of those changes. All changes will be announced in advance. Index Rebalancing

Under the methodology employed, on a quarterly basis coinciding with NASDAQ OMX's quarterly scheduled weight adjustment procedures, the component securities are categorized as either "Large Stocks" or "Small Stocks" depending on whether their current percentage weights (after taking into account scheduled weight adjustments due to stock repurchases, secondary offerings or other corporate actions) are greater than, or less than or equal to, the average percentage weight in the NDX (i.e., as a 100-stock index, the average percentage weight in the NDX is 1%).

This quarterly examination will result in an index rebalancing if it is determined that: (1) the current weight of the single largest market capitalization component security is greater than 24% or (2) the "collective weight" of those component securities, the individual current weights of which are in excess of 4.5%, when added together, exceed 48%. In addition, NASDAQ OMX may conduct a special rebalancing at any time if it is determined to be necessary to maintain the integrity of the NDX.

If either one or both of these weight distribution requirements are met upon quarterly review, or NASDAQ OMX determines that a special rebalancing is required, a weight rebalancing will be performed. First, relating to weight distribution requirement (1) above, if the current weight of the single largest component security exceeds 24%, then the weights of all Large Stocks will be scaled down proportionately towards 1% by enough of an amount for the adjusted weight of the single largest component security to be set to 20%. Second, relating to weight distribution requirement (2) above, for those component securities whose individual current weights or adjusted weights in accordance with the preceding step are in excess of 4.5%, if their "collective weight" exceeds 48%, then the weights of all Large Stocks will be scaled down proportionately towards 1% by just enough amount for the "collective weight," so adjusted, to be set to 40%.

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Auto-Callable Contingent Coupon Barrier Notes Linked to the Lesser Performing of Two Exchange Traded Funds and One Equity Index, Due February 26, 2020 Royal Bank of Canada

The aggregate weight reduction among the Large Stocks resulting from either or both of the above rescalings will then be redistributed to the Small Stocks in the following iterative manner. In the first iteration, the weight of the largest Small Stock will be scaled upwards by a factor which sets it equal to the average Index weight of 1.0%. The weights of each of the smaller remaining Small Stocks will be scaled up by the same factor, reduced in relation to each stock's relative ranking among the Small Stocks, such that the smaller the component security in the ranking, the less the scale-up of its weight. This is intended to reduce the market impact of the weight rebalancing on the smallest component securities in the NDX.

In the second iteration, the weight of the second largest Small Stock, already adjusted in the first iteration, will be scaled upwards by a factor which sets it equal to the average index weight of 1%. The weights of each of the smaller remaining Small Stocks will be scaled up by this same factor, reduced in relation to each stock's relative ranking among the Small Stocks, such that, once again, the smaller the component stock in the ranking, the less the scale-up of its weight.

Additional iterations will be performed until the accumulated increase in weight among the Small Stocks exactly equals the aggregate weight reduction among the Large Stocks from rebalancing in accordance with weight distribution requirement (1) and/or weight distribution requirement (2).

Then, to complete the rebalancing procedure, once the final percent weights of each of the component securities are set, the share weights will be determined anew based upon the last sale prices and aggregate capitalization of the NDX at the close of trading on the last day in February, May, August and November. Changes to the share weights will be made effective after the close of trading on the third Friday in March, June, September and December, and an adjustment to the divisor will be made to ensure continuity of the NDX.

Ordinarily, new rebalanced weights will be determined by applying the above procedures to the current share weights. However, NASDAQ OMX may from time to time determine rebalanced weights, if necessary, by instead applying the above procedure to the actual current market capitalization of the component securities. In those instances, NASDAQ OMX would announce the different basis for rebalancing prior to its implementation.

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HISTORICAL INFORMATION

The graphs below set forth the information relating to the historical performance of the Reference Assets. In addition, below the graphs are tables setting forth the intra-day high, intra-day low and period-end closing prices or levels of the Reference Assets. The information provided in these tables is for the period from January 1, 2013 through February 12, 2018.

We obtained the information regarding the historical performance of the Reference Assets in the graphs and tables 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 Asset should not be taken as an indication of its future performance, and no assurance can be given as to the prices or levels of the Reference Assets at any time. We cannot give you assurance that the performance of the Reference Assets will not result in the loss of all or part of your investment.

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Historical Information for the iShares® MSCI Emerging Markets ETF ("EEM")

Below is a table setting forth the intra-day high, intra-day low and period-end closing prices of this Reference Asset. The information provided in the table is for the period from January 1, 2013 through February 12, 2018.

Period-Start	Period-End	High Intra-Day Price of this	Low Intra-Day Price of this	Period-End Closing Price of
Date	Date	Reference Asset (\$)	Reference Asset (\$)	this Reference Asset (\$)
1/1/2013	3/31/2013	45.28	41.72	42.78
4/1/2013	6/30/2013	44.26	36.16	38.57
7/1/2013	9/30/2013	43.32	&	