ROYAL BANK OF CANADA
Form FWP
February 01, 2018

This document amends and restates the free writing prospectus filed on January 31, 2018.

RBC Capital Markets®	Filed Pursuant to Rule 433 Registration Statement No. 333-208507

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

Preliminary Terms Supplement Subject to Completion: Dated February 1, 2018 Pricing Supplement Dated February __, 2018 to the Product Prospectus Supplement ERN-ETF-1 Dated January 11, 2016, the Prospectus Supplement Dated January 8, 2016, and the Prospectus Dated January 8, 2016	Barrier Booster Notes Linked to the Lesser Performing of Two Exchange Traded Funds, Due February 28, 2023 Royal Bank of Canada

Royal Bank of Canada is offering Barrier Booster Notes (the "Notes") linked to the lesser performing of two exchange traded funds (each, a "Reference Asset" and collectively, the "Reference Assets"). The Notes offered are senior unsecured obligations of Royal Bank of Canada and will have the terms described in the documents described above, as supplemented or modified by this terms supplement.

Reference Assets	Initial Levels*	Barrier Levels
iShares® MSCI EAFE ETF ("EFA")		60.00% of its Initial Level
iShares® MSCI Emerging Markets ETF ("EEM")		60.00% of its Initial Level

* For each Reference Asset, the Initial Level will be its closing share price on the Pricing 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 "Additional Risk Factors Specific to the Notes" beginning on page PS-6 of the product prospectus supplement dated January 11, 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 Exchange Listing:	None
Pricing Date:	February 23, 2018	Principal Amount:	$1,000 per Note

Issue Date:	February 28, 2018	Maturity Date:	February 28, 2023
Valuation Date:	February 23, 2023	Booster Coupon:	[41.50% - 48.50%] (to be determined on the Pricing Date).

Initial Level:	For each Reference Asset, its closing share price on the Pricing Date.
Final Level:	For each Reference Asset, its closing share price on the Valuation Date.
Redemption Amount:	If the Final Level of the Lesser Performing Reference Asset is greater than its Initial Level but its Percentage Change does not exceed the Booster Coupon of [41.50% - 48.50%] (to be determined on the Pricing Date), the Notes provide a fixed return equal to the Principal Amount plus the Booster Coupon. If the Final Level of the Lesser Performing Reference Asset is greater than its Initial Level and its Percentage Change exceeds the Booster Coupon of [41.50% - 48.50%] (to be determined on the Pricing Date), the Notes provide a one-for-one positive return based upon the increase in the level of the Lesser Performing Reference Asset. If the Final Level of the Lesser Performing Reference Asset is less than or equal to its Initial Level, but greater than or equal to its Barrier Level, the investor will receipt the principal amount. If the Final Level of the Lesser Performing Reference Asset is less than its Barrier Level, then the investor will receive an amount that is less than the principal amount, and that reflects the percentage decrease in the share price of the Lesser Performing Reference Asset. An investor could lose all or a substantial portion of its investment in the Notes.
Lesser Performing Reference Asset:	The Reference Asset which has the lowest Percentage Change.
Interest Payments:	None.
CUSIP:	78013XFA1

	Per Note	Total
Price to public[(1)]	100.00%	$
Underwriting discounts and commissions[(1)]	2.75%	$
Proceeds to Royal Bank of Canada	97.25%	$

[(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 $972.50 and $1,000 per $1,000 in principal amount.

The initial estimated value of the Notes as of the date of this terms supplement is $927.71 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 Pricing Date, which will not be less than $907.71 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 $27.50 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 $27.50 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.

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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 Barrier Booster Notes (the "Notes") linked to the lesser performing of two exchange traded funds (the "Reference Assets").
Issuer:	Royal Bank of Canada ("Royal Bank")
Issue:	Senior Global Medium-Term Notes, Series G
Pricing Date:	February 23, 2018
Issue Date:	February 28, 2018
Term:	Approximately five years
Denominations:	Minimum denomination of $1,000, and integral multiples of $1,000 thereafter.
Designated Currency:	U.S. Dollars
Valuation Date:	February 23, 2023
Maturity Date:	February 28, 2023
Initial Level:	For each Reference Asset, its closing share price on the Pricing Date.
Final Level:	For each Reference Asset, its closing share price on the Valuation Date.
Barrier Level:	For each Reference Asset, 60.00% of its Initial Level.
Booster Coupon:	[41.50% - 48.50%], to be determined on the Pricing Date.
Redemption Amount:	On the Valuation Date, 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 its Initial Level, but its Percentage Change does not exceed the Booster Coupon, the Notes provide a fixed return equal to the Principal Amount plus the Booster Coupon: $1,000 + ($1,000 x Booster Coupon) · If the Final Level of the Lesser Performing Reference Asset is greater than its Initial Level and its Percentage Change exceeds the Booster Coupon, the Notes provide a one-for-one positive return based upon the increase in the level of the Lesser Performing Reference Asset $1,000 + ($1,000 x Percentage Change of the Lesser Performing Reference Asset) · If the Final Level of the Lesser Performing Reference Asset is less than or equal to its Initial Level, but greater than or equal to its Barrier Level, the investor will receive the principal amount. · If the Final Level of the Lesser Performing Reference Asset is less than its Barrier Level, then the investor will receive an amount equal to: $1,000 + ($1,000 x Percentage Change of the Lesser Performing Reference Asset) In this case, 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 Pricing Date to the Valuation Date. Investors in the Notes could lose some or all of their investment if there has been a decline in the trading price of the Lesser Performing Reference Asset below its Barrier Level.
Percentage Change:	With respect to each Reference Asset: $\frac{\text{Final Level} - \text{Initial Level}}{\text{Initial Level}}$
Lesser Performing Reference Asset:	The Reference Asset which has the lowest Percentage Change.
Market Disruption Event:	If a market disruption event occurs on the Valuation Date as to a Reference Asset, the determination of the Final Level of that Reference Asset will be postponed. However, the determination of the Final Level of any Reference Asset that is not affected by that market disruption event will not be postponed.
Calculation Agent:	RBC Capital Markets, LLC (“RBCCM”)

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U.S. Tax Treatment:	By purchasing a Note, each holder agrees (in the absence of a change in law, an administrative determination or a judicial ruling to the contrary) to treat the Notes as a pre-paid cash-settled derivative contract in respect of 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 counsel Morrison & Foerster LLP) in the product prospectus supplement dated January 11, 2016 under “Supplemental Discussion of U.S. Federal Income Tax Consequences,” which apply to the Notes.
Secondary Market:	RBCCM (or one of its affiliates), though not obligated to do so, may maintain a secondary market in the Notes after the Issue Date. The amount that you may receive upon sale of 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 January 8, 2016).
Terms Incorporated in the Master Note:	All of the terms appearing above the item captioned “Secondary Market” on the cover page and 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 January 11, 2016, as modified by this terms 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 11, 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.

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 "Additional Risk Factors Specific to the Notes" in the product prospectus supplement dated January 11, 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 ERN-ETF-1 dated January 11, 2016:
https://www.sec.gov/Archives/edgar/data/1000275/000114036116047385/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 hypothetical Redemption Amount of the Notes for a hypothetical range of performance for the Lesser Performing Reference Asset, assuming the following terms:

Hypothetical Initial Level (for each Reference Asset):	1,000.00*
Hypothetical Barrier Level (for each Reference Asset):	600.00, which is 60.00% of the hypothetical Initial Level
Hypothetical Booster Coupon:	45%, which is the midpoint of the Booster Coupon range of [41.50% - 48.50%] (to be determined on the Pricing Date).
Principal Amount:	$1,000 per Note

* The hypothetical Initial Level of 1,000.00 used in the examples below has been chosen for illustrative purposes only and does not represent the actual Initial Level of either Reference Asset. The actual Initial Levels for each Reference Asset 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 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 are shown in the first column on the left. The second column shows the Redemption Amount for a range of Final Levels of the Lesser Performing Reference Asset on the Valuation Date. The third column shows the Redemption Amount to be paid on the Notes per $1,000 in principal amount.

Hypothetical Final Level of the Lesser Performing Reference Asset	Redemption Amount as Percentage of Principal Amount	Redemption Amount per $1,000 in Principal Amount
1,600.00	160.00%	$1,600.00
1,500.00	150.00%	$1,500.00
1,400.00	145.00%	$1,450.00
1,300.00	145.00%	$1,450.00
1,200.00	145.00%	$1,450.00
1,100.00	145.00%	$1,450.00
1,000.00	145.00%	$1,450.00
900.00	100.00%	$1,000.00
800.00	100.00%	$1,000.00
700.00	100.00%	$1,000.00
600.00	60.00%	$600.00
599.90	59.99%	$599.90
500.00	50.00%	$500.00
400.00	40.00%	$400.00
250.00	25.00%	$250.00

0.00	0.00%	$0.00

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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.

Example 1: The price of the Lesser Performing Reference Asset increases by 10% from the Initial Level of 1,000.00 to its Final Level of 1,100.00. Because the Final Level of the Lesser Performing Reference Asset is greater than the Initial Level, but the Percentage Change is less than the Booster Coupon, the investor receives at maturity, a cash payment of $1,450.00 per Note, corresponding to the Booster Coupon.

Principal Amount + (Principal Amount x Booster Coupon)

=$1,000 + ($1,000 x 45%) = $1,450

Example 2: The price of the Lesser Performing Reference Asset increases by 50% from the Initial Level of 1,000.00 to its Final Level of 1,500.00. Because the Final Level of the Lesser Performing Reference Asset is greater than the Initial Level, and the Percentage Change is greater than the Booster Coupon, the investor receives at maturity, a cash payment

Principal Amount + (Principal Amount x Percentage Change of the Lesser Performing Reference Asset)

= $1,000 + ($1,000 x 50%) = $1,500.00

Example 3: The price of the Lesser Performing Reference Asset decreases by 15% from the Initial Level of 1,000.00 to its Final Level of 850.00. Because the Final Level of the Lesser Performing Reference Asset is greater than its Barrier Level of 600.00, the investor receives at maturity, the principal amount despite the 15% decline in the share price of the Lesser Performing Reference Asset.

Example 4: The price of the Lesser Performing Reference Asset is 400.00 on the Valuation Date, which is less than its Barrier Level of 600.00. Because the Final Level of the Lesser Performing Reference Asset is less than its Barrier Level of 600.00, we will pay only $400.00 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 -60.00%) = $1,000 - $600.00 = $400.00

* * *

The Payments at Maturity shown above are entirely hypothetical; they are based on prices 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 Redemption Amounts 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 the securities included in either Reference Asset.

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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 "Additional Risk Factors Specific to the Notes" in the product prospectus supplement. In addition to the risks described in the prospectus supplement and the product prospectus supplement, you should consider the following:

- 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 share price of the Lesser Performing Reference Asset between the Pricing Date and the Valuation Date of more than 30%. You will lose 1% of the principal amount of your Notes for each 1% that the Lesser Performing Reference Asset has declined if the Final Level of the Lesser Performing Reference Asset is less than its Barrier Level.
- Your Redemption Amount Will Be Determined Solely by Reference to the Lesser Performing Reference Asset Even if the Other Reference Asset Performs Better – Your Redemption Amount will be determined solely by reference to the performance of the Lesser Performing Reference Asset. Even if the Final Level of the other Reference Asset has increased compared to its Initial Level, or has 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 Asset, regardless of the performance of the other Reference Asset. 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 Asset. Instead, your return will depend solely on the Final Level of the Lesser Performing Reference Asset.
- The Notes Do Not Pay Interest and Your Return May Be Lower than the Return on a Conventional Debt Security of Comparable Maturity – You will not receive any interest payments on the Notes as there would be on a conventional fixed-rate or floating-rate debt security having the same maturity. The return that you will receive on the Notes, which could be negative, may be less than the return you could earn on other investments. Your return may be less than the return you would earn if you bought a conventional senior interest bearing debt security of Royal Bank.
- Payments on the Notes Are Subject to Our Credit Risk, and Changes in Our Credit Ratings Are Expected to Affect the Market Value of the Notes – The Notes are Royal Bank's senior unsecured debt securities. As a result, your receipt of the Redemption Amount is dependent upon Royal Bank's ability to repay its obligations at that time. This will be the case even if the share prices of the Reference Assets increase after the Pricing Date. No assurance can be given as to what our financial condition will be at the maturity 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 other affiliates of Royal Bank may make a market for the Notes; however, they are not required to do so. RBCCM or any other affiliate of Royal Bank may stop any market-making activities at any time. Even if a secondary market for the Notes develops, it may not provide significant liquidity or trade at prices advantageous to you. We expect that transaction costs in any secondary market would be high. As a result, the difference between bid and asked prices for your Notes in any secondary market could be substantial.
- Owning the Notes Is Not the Same as Owning the Reference Assets — The return on your Notes is unlikely to reflect the return you would realize if you actually owned shares of the Reference Assets. For instance, you will not receive

or be entitled to receive any dividend payments or other distributions on those 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 the Reference Assets may have.

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

- Inconsistent Research — Royal Bank or its affiliates may issue research reports on the Reference Assets or on securities that are, or may become, components of the Reference Assets. We may also publish research from time to time on financial markets and other matters that may influence the share prices of the Reference Assets or the value of the Notes, or express opinions or provide recommendations that may be inconsistent with purchasing or holding the Notes or with the investment view implicit in the Notes or the Reference Assets. You should make your own independent investigation of the merits of investing in the Notes and the Reference Assets.
- Market Disruption Events and Adjustments – The Redemption Amount 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.
- Each Reference Asset and its Underlying Index Are Different — The performance of each Reference Asset may not exactly replicate the performance of its underlying index, because each Reference Asset will reflect transaction costs and fees that are not included in the calculation of its underlying index. It is also possible that the performance of each Reference Asset may not fully replicate or may in certain circumstances diverge significantly from the performance of its underlying index due to the temporary unavailability of certain securities in the secondary market, the performance of any derivative instruments contained in such Reference Asset or due to other circumstances. Each Reference Asset 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 Reference Asset may be unavailable in the secondary market, market participants may be unable to calculate accurately the net asset value per share of a Reference Asset and the liquidity of a Reference Asset may be adversely affected. This kind of market volatility may also disrupt the ability of market participants to create and redeem shares of a Reference Asset. Further, market volatility may adversely affect, sometimes materially, the prices at which market participants are willing to buy and sell shares of a Reference Asset. As a result, under these circumstances, the market value of shares of such Reference Asset may vary substantially from the net asset value per share of such Reference Asset. For all of the foregoing reasons, the performance of each Reference Asset may not correlate with the performance of its underlying index as well as the net asset value per share of such Reference Asset, which could materially and adversely affect the value of the Notes in the secondary market and/or reduce your payment at maturity

- Adjustments to the Reference Asset Could Adversely Affect the Notes — The advisor of the Reference Assets, BlackRock Fund Advisors (the "Advisor"), is responsible for calculating and maintaining the Reference Asset. The Advisor can add, delete or substitute the stocks comprising the Reference Asset. The Advisor may make other methodological changes that could change the share price of the Reference Asset at any time. If one or more of these events occurs, the calculation of the amount payable at maturity may be adjusted to reflect such event or events. Consequently, any of these actions could adversely affect the amount payable at maturity and/or the market value of the Notes.

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

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- We and Our Affiliates Do Not Have Any Affiliation with the Advisor and Are Not Responsible for its Public Disclosure of Information — We and our affiliates are not affiliated with the Advisor in any way and have no ability to control or predict its actions, including any errors in or discontinuance of disclosure regarding its methods or policies relating to the Reference Assets. The Advisor is not involved in the offering of the Notes in any way and has no obligation to consider your interests as an owner of the Notes in taking any actions relating to the Reference Assets that might affect the value of the Notes. Neither we nor any of our affiliates has independently verified the adequacy or accuracy of the information about the Advisor or the Reference Assets contained in any public disclosure of information. You, as an investor in the Notes, should make your own investigation into the Reference Assets.
- The Reference Asset Is Subject to Management Risks — The Reference Assets are subject to management risk, which is the risk that the Advisor's investment strategy, the implementation of which is subject to a number of constraints, may not produce the intended results. For example, the Advisor may invest a portion of the Reference Assets' assets in securities not included in the relevant industry or sector but which the Advisor believes will help the Reference Asset track the relevant industry or sector.
- Our Business Activities May Create Conflicts of Interest — We and our affiliates expect to engage in trading activities related to the Reference Assets or the securities held 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 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 issuers of the securities held 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. This research is modified from time to time without notice and may express opinions or provide recommendations that are inconsistent with purchasing or holding the Notes. Any of these activities by us or one or more of our affiliates may affect the price of the Reference Assets, and, therefore, the market value of the Notes.
- An Investment in Notes Linked to the Reference Assets Is Subject to Risks Associated with Foreign Securities Markets — The underlying indices of the Reference Assets 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 the 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 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.

- The Notes Are Subject to Foreign Currency Exchange Rate Risk — The share price of each Reference Asset will 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 the Reference Asset are traded. Accordingly, investors in the notes will be exposed to currency exchange rate risk with respect to each of the currencies in which the stocks held by each Reference Asset 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 a Reference Asset will be adversely affected and its price may decrease.

Barrier Booster Notes
Linked to the Lesser Performing of Two
Exchange Traded Funds,
Due February 28, 2023
Royal Bank of Canada

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. We are not affiliated with any of the Reference Assets and the Reference Assets will have no obligations with respect to the Notes. Neither we nor our affiliates participate in the preparation of the publicly available documents described below. Neither we nor our affiliates have made any due diligence inquiry with respect to any of the Reference Assets in connection with the offering of the Notes. There can be no assurance that all events occurring prior to the date of this document, including events that would affect the accuracy or completeness of the publicly available documents described below, that would affect the trading prices of the shares of any of the Reference Assets have been or will be publicly disclosed. Subsequent disclosure of any events or the disclosure of or failure to disclose material future events concerning any of the Reference Assets could affect the price of the shares of the applicable Reference Asset after the Pricing Date, and therefore could affect the payment at maturity.

The selection of the Reference Assets is not a recommendation to buy or sell the shares of either Reference Asset. Neither we nor any of our affiliates make any representation to you as to the performance of the shares 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 may be obtained through the SEC's website at http://www.sec.gov.

iShares consists of numerous separate investment portfolios (the "iShares Funds"), including the applicable Reference Asset. Each of the Reference Assets seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of their respective underlying indices. The 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 the 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, you will not be entitled to receive income, dividend, or capital gain distributions from the applicable Reference Asset or any equivalent payments.

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iShares® MSCI EAFE ETF (the "EFA")

The iShares® MSCI EAFE ETF trades on the NYSE Arca under the ticker symbol "EFA." The Advisor emplo