

ROYAL BANK OF CANADA  
Form FWP  
October 10, 2017

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ISSUER FREE WRITING PROSPECTUS

Filed Pursuant to Rule 433

Registration Statement No. 333-208507

Dated October 9, 2017

Royal Bank of Canada Trigger GEARS

\$• Securities Linked to the iShares® MSCI EAFE ETF due on or about October 30, 2020

Investment Description

Trigger GEARS are unconditional, unsecured and unsubordinated debt securities issued by Royal Bank of Canada with returns linked to the performance of the iShares® MSCI EAFE ETF (the “Underlying”) (each, a “Security” and collectively, the “Securities”). If the Underlying Return is positive, we will repay the principal amount at maturity plus a return equal to the Underlying Return multiplied by the Upside Gearing. The Upside Gearing will be set on the Trade Date and will be between 1.31 and 1.41. If the Underlying Return is zero or negative, but the Final Underlying Price is greater than or equal to the Downside Threshold, we will pay you the principal amount at maturity. If the Final Underlying Price is less than the Downside Threshold, we will pay less than the full principal amount at maturity, if anything, resulting in a loss on your initial investment that is proportionate to the negative performance of the Underlying over the term of the Securities, and you may lose up to 100% of your initial investment. Investing in the Securities involves significant risks. The Securities do not pay dividends or interest. You may lose some or all of your principal amount. The contingent repayment of principal applies only if you hold the Securities to maturity. Any payment on the Securities, including any repayment of principal, is subject to our creditworthiness. If we were to default on our payment obligations, you may not receive any amounts owed to you under the Securities and you could lose your entire investment. The Securities will not be listed on any securities exchange.

Features Key Dates<sup>1</sup>

£ Enhanced Growth Potential — At maturity, if the Underlying Return is positive, we will pay you the principal amount plus a return equal to the Upside Gearing times the Underlying Return.

£ Contingent Repayment of Principal at Maturity — If the Underlying Return is negative, but the Final Underlying Price is not below the Downside Threshold, we will repay your principal amount. However, if the Final Underlying Price is less than the Downside Threshold, investors will be exposed to the full downside performance of the Underlying and we will pay less than the principal amount, resulting in a loss of principal amount that is proportionate to the percentage decline in the Underlying. Accordingly, you may lose some or all of the principal amount of the Securities. The contingent repayment of principal applies only at maturity. Any payment on the Securities, including any repayment of principal, is subject to our creditworthiness.

Trade Date<sup>1</sup> October 26, 2017

Settlement Date<sup>1</sup> October 31, 2017

Final Valuation Date<sup>2</sup> October 27, 2020

Maturity Date<sup>2</sup> October 30, 2020

<sup>1</sup> Expected. In the event that we make any change to the expected Trade Date and Settlement Date, the Final Valuation Date and Maturity Date will be changed so that the stated term of the Securities remains approximately the same.

<sup>2</sup> Subject to postponement in the event of a market disruption event and as described under “General Terms of the Securities—Payment at Maturity” in the accompanying product prospectus supplement no. UBS-EQUITY-1.

**NOTICE TO INVESTORS: THE SECURITIES ARE SIGNIFICANTLY RISKIER THAN CONVENTIONAL DEBT INSTRUMENTS. THE ISSUER IS NOT NECESSARILY OBLIGATED TO REPAY THE FULL PRINCIPAL AMOUNT OF THE SECURITIES AT MATURITY, AND THE SECURITIES HAVE FULL DOWNSIDE MARKET RISK SIMILAR TO THE UNDERLYING EQUITY. THIS MARKET RISK IS IN ADDITION TO THE CREDIT RISK INHERENT IN PURCHASING OUR DEBT OBLIGATION. YOU SHOULD NOT PURCHASE THE SECURITIES IF YOU DO NOT UNDERSTAND OR ARE NOT COMFORTABLE WITH**

THE SIGNIFICANT RISKS INVOLVED IN INVESTING IN THE SECURITIES.

YOU SHOULD CAREFULLY CONSIDER THE RISKS DESCRIBED UNDER “KEY RISKS” BEGINNING ON PAGE 5 OF THIS FREE WRITING PROSPECTUS AND UNDER “RISK FACTORS” BEGINNING ON PAGE PS-3 OF THE ACCOMPANYING PRODUCT PROSPECTUS SUPPLEMENT NO. UBS-EQUITY-1 BEFORE PURCHASING ANY SECURITIES. EVENTS RELATING TO ANY OF THOSE RISKS, OR OTHER RISKS AND UNCERTAINTIES, COULD ADVERSELY AFFECT THE MARKET VALUE OF, AND THE RETURN ON, YOUR SECURITIES. YOU COULD LOSE SOME OR ALL OF THE PRINCIPAL AMOUNT OF THE SECURITIES.

Securities Offering

We are offering Trigger GEARS Linked to the iShares® MSCI EAFE ETF (“EFA”). The Securities are not subject to a predetermined maximum gain and, accordingly, any return at maturity will be determined by the performance of the Underlying. The Securities are offered at a minimum investment of 100 Securities at the Price to Public described below. The actual Upside Gearing, Initial Underlying Price and Downside Threshold for the Securities will be determined on the Trade Date.

| Underlying                         | Upside Gearing | Initial Underlying Price | Downside Threshold                  | CUSIP     | ISIN         |
|------------------------------------|----------------|--------------------------|-------------------------------------|-----------|--------------|
| The iShares® MSCI EAFE ETF (“EFA”) | 1.31 to 1.41   | •                        | 80% of the Initial Underlying Price | 78013F412 | US78013F4129 |

See “Additional Information About Royal Bank of Canada and the Securities” in this free writing prospectus. The Securities will have the terms specified in the prospectus dated January 8, 2016, the prospectus supplement dated January 8, 2016, product prospectus supplement no. UBS-EQUITY-1 dated January 4, 2017 and this free writing prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the Securities or passed upon the accuracy or the adequacy of this free writing prospectus or the accompanying prospectus, prospectus supplement and product prospectus supplement no. UBS-EQUITY-1. Any representation to the contrary is a criminal offense.

| Offering of the Securities                              | Price to Public <sup>(1)</sup> | Fees and Commissions <sup>(1)</sup> | Proceeds to Us     |
|---|--------------------------------|-------------------------------------|--------------------|
| Securities Linked to the iShares® MSCI EAFE ETF (“EFA”) | Total Per Security             | Total Per Security                  | Total Per Security |
| •   | \$10.00                        | • \$0.00                            | • \$10.00          |

<sup>(1)</sup> All sales of the Securities will be made to certain fee-based advisory accounts for which UBS Financial Services Inc., which we refer to as UBS, is an investment advisor, and UBS will act as placement agent. The purchase price will be \$10.00 per Security and UBS will forgo any commissions relating to these sales. See “Supplemental Plan of Distribution (Conflicts of Interest)” in this free writing prospectus.

The initial estimated value of the Securities as of the date of this document is \$9.83 per \$10 in principal amount, which is less than the price to public. The pricing supplement relating to the Securities will set forth our estimate of the initial value of the Securities as of the Trade Date, which will not be more than \$0.20 less than this amount. The actual value of the Securities 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 under “Key Risks,” “Supplemental Plan of Distribution (Conflicts of Interest)” and “Structuring the Securities” in this free writing prospectus.

The Securities will not constitute deposits insured under the Canada Deposit Insurance Corporation Act or by the United States Federal Deposit Insurance Corporation or any other Canadian or United States government agency or instrumentality.

UBS Financial Services Inc. RBC Capital Markets, LLC

Additional Information About Royal Bank of Canada and the Securities

Royal Bank of Canada has filed a registration statement (including a prospectus) with the Securities and Exchange Commission, or SEC, for the offering to which this free writing prospectus relates. Before you invest, you should read the prospectus in that registration statement and the other documents relating to this offering that Royal Bank of Canada has filed with the SEC for more complete information about Royal Bank of Canada and this offering. You may obtain these documents without cost by visiting EDGAR on the SEC website at [www.sec.gov](http://www.sec.gov). Alternatively, Royal Bank of Canada, any agent or any dealer participating in this offering will arrange to send you the prospectus, the prospectus supplement, product prospectus supplement no. UBS-EQUITY-1 and this free writing prospectus if you so request by calling toll-free 866-609-6009.

You may revoke your offer to purchase the Securities at any time prior to the time at which we accept such offer by notifying the applicable agent. We reserve the right to change the terms of, or reject any offer to purchase, the Securities prior to their issuance. In the event of any changes to the terms of the Securities, we will notify you and you will be asked to accept such changes in connection with your purchase. You may also choose to reject such changes, in which case we may reject your offer to purchase.

You should read this free writing prospectus together with the prospectus dated January 8, 2016, as supplemented by the prospectus supplement dated January 8, 2016, relating to our senior global medium-term notes, Series G, of which these Securities are a part, and the more detailed information contained in product prospectus supplement no. UBS-EQUITY-1 dated January 4, 2017. This free writing prospectus, together with the documents listed below, contains the terms of the Securities and supersedes all other prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, fact sheets, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in "Risk Factors" in the accompanying product prospectus supplement no. UBS-EQUITY-1, as the Securities involve risks not associated with conventional debt securities.

If the terms discussed in this free writing prospectus differ from those discussed in the product prospectus supplement no. UBS-EQUITY-1, the prospectus supplement, or the prospectus, the terms discussed herein will control.

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

• Product prospectus supplement no. UBS-EQUITY-1 dated January 4, 2017:

<https://www.sec.gov/Archives/edgar/data/1000275/000114036117000487/form424b5.htm>

• Prospectus supplement dated January 8, 2016:

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

• Prospectus dated January 8, 2016:

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

As used in this free writing prospectus, "we," "us" or "our" refers to Royal Bank of Canada.

### Investor Suitability

The Securities may be suitable for you if, among other considerations:

- .. You fully understand the risks inherent in an investment in the Securities, including the risk of loss of your entire initial investment.
- .. You can tolerate the loss of all or a substantial portion of the principal amount of the Securities and are willing to make an investment that may have the full downside market risk as a hypothetical investment in the Underlying.
- .. You believe the price of the Underlying will appreciate over the term of the Securities.
- .. You would be willing to invest in the Securities if the Upside Gearing was set to the bottom of the range indicated on the cover page of this free writing prospectus (the actual Upside Gearing will be set on the Trade Date).
- .. You can tolerate fluctuations in the price of the Securities prior to maturity that may be similar to or exceed the downside fluctuations in the price of the Underlying.
- .. You understand and accept the risks associated with the Underlying.
- .. You do not seek current income from your investment and are willing to forgo dividends paid on the Underlying.
- .. You are willing to hold the Securities to maturity and accept that there may be little or no secondary market for the Securities.
- .. You are willing to assume our credit risk for all payments under the Securities, and understand that if we default on our obligations, you may not receive any amounts due to you, including any repayment of principal.

The Securities may not be suitable for you if, among other considerations:

- .. You do not fully understand the risks inherent in an investment in the Securities, including the risk of loss of your entire initial investment.
- .. You require an investment designed to provide a full return of principal at maturity.
- .. You cannot tolerate the loss of all or a substantial portion of the principal amount of the Securities, and you are not willing to make an investment that may have the full downside market risk as a hypothetical investment in the Underlying.
- .. You believe that the price of the Underlying will decline over the term of the Securities.
- .. You would be unwilling to invest in the Securities if the Upside Gearing was set to the bottom of the range indicated on the cover page of this free writing prospectus (the actual Upside Gearing will be set on the Trade Date).
- .. You cannot tolerate fluctuations in the price of the Securities prior to maturity that may be similar to or exceed the downside fluctuations in the price of the Underlying.
- .. You do not fully understand or accept the risks associated with the Underlying.
- .. You seek current income from this investment or prefer to receive the dividends paid on the Underlying.
- .. You are unable or unwilling to hold the Securities to maturity or you seek an investment for which there will be an active secondary market.
- .. You are not willing to assume our credit risk for all payments under the Securities, including any repayment of principal.

The suitability considerations identified above are not exhaustive. Whether or not the Securities are a suitable investment for you will depend on your individual circumstances, and you should reach an investment decision only after you and your investment, legal, tax, accounting, and other advisers have carefully considered the suitability of an investment in the Securities in light of your particular circumstances. You should also review carefully the “Key Risks” beginning on page 5 of this free writing prospectus and “Risk Factors” in the accompanying product prospectus supplement no. UBS-EQUITY-1 for risks related to an investment in the Securities. In addition, you should review carefully the section below, “Information About the Underlying,” for more information about the Underlying.

Indicative Terms of the Securities<sup>1</sup>

|  |   |
|--|---|
| Issuer:                                  | Royal Bank of Canada  |
| Issue Price:                             | \$10 per Security (subject to a minimum purchase of 100 Securities).  |
| Principal Amount:                        | \$10 per Security   |
| Term: <sup>2</sup>                       | Approximately three (3) years   |
| Underlying:                              | iShares <sup>®</sup> MSCI EAFE ETF  |
| Upside Gearing:                          | 1.31 - 1.41 (to be set on the Trade Date)   |
|  | If the Underlying Return is positive, we will pay you:<br>\$10 + (\$10 x Underlying Return x Upside Gearing)  |
|  | If the Underlying Return is zero or negative and the Final Underlying Price is greater than or  |
| Payment at Maturity (per \$10 Security): | equal to the Downside Threshold, we will pay you:<br>\$10   |
|  | If the Final Underlying Price is less than the Downside Threshold, we will pay you:<br>\$10 + (\$10 x Underlying Return)                            |
|  | In this scenario, you will lose some or all of the principal amount of the Securities in an amount proportionate to the negative Underlying Return. |
| Underlying Return:                       | $\frac{\text{Final Underlying Price} - \text{Initial Underlying Price}}{\text{Initial Underlying Price}}$   |
| Initial Underlying Price:                | The Closing Price of the Underlying on the Trade Date.  |
| Final Underlying Price:                  | The Closing Price of the Underlying on the Final Valuation Date.  |
| Downside Threshold:                      | 80% of the Initial Underlying Price.  |

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<sup>1</sup> Terms used in this free writing prospectus, but not defined herein, shall have the meanings ascribed to them in the product prospectus supplement.

<sup>2</sup> In the event we make any change to the expected Trade Date and Settlement Date, the Final Valuation Date and Maturity Date will be changed to ensure that the stated term of the Securities remains approximately the same.

Investment Timeline

Trade Date: The Upside Gearing is set. The Initial Underlying Price is determined.

Maturity Date: The Final Underlying Price and Underlying Return are determined.

If the Underlying Return is positive, we will pay you a cash payment per \$10 Security that provides you with your principal amount plus a return equal to the Underlying Return times the Upside Gearing. Your payment at maturity per \$10 Security will be equal to:

$$\$10 + (\$10 \times \text{Underlying Return} \times \text{Upside Gearing})$$

If the Underlying Return is zero or negative and the Final Underlying Price is greater than or equal to the Downside Threshold, we will pay you a cash payment of \$10 per \$10 Security.

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If the Final Underlying Price is less than the Downside Threshold, we will pay you a cash payment that is less than the principal amount of \$10 per Security, resulting in a loss of principal that is proportionate to the percentage decline in the Underlying, and equal to:

$$\$10 + (\$10 \times \text{Underlying Return})$$

In this scenario, you will lose some or all of the principal amount of the Securities, in an amount proportionate to the negative Underlying Return.

INVESTING IN THE SECURITIES INVOLVES SIGNIFICANT RISKS. YOU MAY LOSE SOME OR ALL OF YOUR PRINCIPAL AMOUNT. ANY PAYMENT ON THE SECURITIES, INCLUDING ANY REPAYMENT OF PRINCIPAL, IS SUBJECT TO OUR CREDITWORTHINESS. IF WE WERE TO DEFAULT ON OUR PAYMENT OBLIGATIONS, YOU MAY NOT RECEIVE ANY AMOUNTS OWED TO YOU UNDER THE SECURITIES AND YOU COULD LOSE YOUR ENTIRE INVESTMENT.

## Key Risks

An investment in the Securities involves significant risks. Investing in the Securities is not equivalent to investing directly in the Underlying. These risks are explained in more detail in the “Risk Factors” section of the accompanying product prospectus supplement no. UBS-EQUITY-1. We also urge you to consult your investment, legal, tax, accounting and other advisors before investing in the Securities.

### Risks Relating to the Securities Generally

**Your Investment in the Securities May Result in a Loss of Principal:** The Securities differ from ordinary debt securities in that we are not necessarily obligated to repay the full principal amount of the Securities at maturity. The return on the Securities at maturity is linked to the performance of the Underlying and will depend on whether, and the extent to which, the Underlying Return is positive or negative. If the Final Underlying Price is less than the Downside Threshold, you will be fully exposed to any negative Underlying Return and we will pay you less than your principal amount at maturity, resulting in a loss of principal of your Securities that is proportionate to the percentage decline in the Underlying. Accordingly, you could lose the entire principal amount of the Securities.

**The Contingent Repayment of Principal Applies Only if You Hold the Securities to Maturity:** You should be willing to hold your Securities to maturity. If you are able to sell your Securities prior to maturity in the secondary market, you may have to sell them at a loss even if the price of the Underlying is above the Downside Threshold at the time of sale.

**The Upside Gearing Applies Only if You Hold the Securities to Maturity:** The application of the Upside Gearing only applies at maturity. If you are able to sell your Securities prior to maturity in the secondary market, the price you receive will likely not reflect the full effect of the Upside Gearing and the return you realize may be less than the Upside Gearing times the return of the Underlying at the time of sale, even if that return is positive.

**No Interest Payments:** We will not pay any interest with respect to the Securities.

**An Investment in the Securities Is Subject to Our Credit Risk:** The Securities are unsubordinated, unsecured debt obligations of the issuer, Royal Bank of Canada, and are not, either directly or indirectly, an obligation of any third party. Any payment to be made on the Securities, including any repayment of principal at maturity, depends on our ability to satisfy our obligations as they come due. As a result, our actual and perceived creditworthiness may affect the market value of the Securities and, in the event we were to default on our obligations, you may not receive any amounts owed to you under the terms of the Securities and you could lose your entire initial investment.

**Your Return on the Securities May Be Lower than the Return on a Conventional Debt Security of Comparable Maturity:** The return that you will receive on the Securities, 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 could earn if you bought a conventional senior interest bearing debt security of ours with the same maturity date or if you invested directly in the Underlying. Your investment may not reflect the full opportunity cost to you when you take into account factors that affect the time value of money.

**The Initial Estimated Value of the Securities Will Be Less than the Price to the Public:** The initial estimated value that is set forth on the cover page of this document, and that will be set forth in the final pricing supplement for the Securities, will be less than the public offering price you pay for the Securities, does not represent a minimum price at which we, RBCCM or any of our other affiliates would be willing to purchase the Securities in any secondary market (if any exists) at any time. If you attempt to sell the Securities prior to maturity, their market value may be lower than the price you paid for them and the initial estimated value. This is due to, among other things, changes in the price of the Underlying, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to public of our estimated profit and the costs relating to our hedging of the Securities. These factors, together with various credit, market and economic factors over the term of the Securities, are expected to reduce the price at which you may be able to sell the Securities in any secondary market and will affect the value of the Securities 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 Securities prior to maturity may be less than the price to public, as any such sale price would not be expected to include our estimated profit and the costs relating to our hedging of the Securities. In addition, any price at which you may sell the Securities is likely to reflect customary bid-ask spreads for similar trades. In addition to bid-ask spreads, the value of the Securities determined for any secondary market price is expected to be based on the secondary market rate rather than the internal borrowing rate used to price the Securities

and determine the initial estimated value. As a result, the secondary market price will be less than if the internal borrowing rate was used. The Securities are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Securities to maturity.

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

**Owning the Securities Is Not the Same as Owning the Underlying or the Stocks Comprising the Underlying’s Underlying Index:** The return on your Securities may not reflect the return you would realize if you actually owned the Underlying or stocks included in the Underlying’s underlying index. As a holder of the Securities, you will not have voting rights or rights to receive dividends or other distributions or other rights that holders of the Underlying or these stocks would have, and any such dividends will not be incorporated in the determination of the Underlying Return.

**The Policies of the Underlying’s Investment Adviser Could Affect the Amount Payable on the Securities and Their Market Value:** The policies of the Underlying’s investment adviser concerning the management of the Underlying, additions, deletions or substitutions of the securities held by the Underlying could affect the market price of shares of the Underlying and, therefore, the amount payable on the Securities on the maturity date and the market value of the Securities before that date. The amount payable on the Securities and their market value could also be affected if the Underlying investment adviser changes these policies, for example, by changing the manner in which it manages the Underlying, or if the Underlying investment adviser discontinues or suspends maintenance of the Underlying, in which case it may become difficult to determine the market value of the Securities. The Underlying’s investment adviser has no connection to the offering of the Securities and has no obligations to you as an investor in the Securities in making its decisions regarding the Underlying.



**Historical Prices of the Underlying Should Not Be Taken as an Indication of Its Future Prices During the Term of the Securities:** The trading prices of the Underlying will determine the value of the Securities at any given time.

However, it is impossible to predict whether the price of the Underlying will rise or fall, and trading prices of the common stocks held by the Underlying will be influenced by complex and interrelated political, economic, financial and other factors that can affect the issuers of those stocks, and therefore, the price of the Underlying.

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

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

**Management Risk:** The Underlying is not managed according to traditional methods of “active” investment management, which involve the buying and selling of securities based on economic, financial and market analysis and investment judgment. Instead, the Underlying, 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 the underlying index. Therefore, unless a specific security is removed from the underlying index, the Underlying generally would not sell a security because the security’s issuer was in financial trouble. In addition, the Underlying is subject to the risk that the investment strategy of the Underlying’s investment advisor may not produce the intended results.

**Risks Associated with Foreign Securities Markets:** Because foreign companies or foreign equity securities held by the Underlying are publicly traded in the applicable foreign countries and trade in currencies other than U.S. dollars, investments in the Securities involve particular risks. For example, the foreign securities markets may be more volatile than the U.S. securities markets, and market developments may affect these markets differently from the United States or other securities markets. Direct or indirect government intervention to stabilize the securities markets outside the United States, as well as cross-shareholdings in certain companies, may affect trading prices and trading volumes in those markets. Also, the public availability of information concerning the foreign issuers may vary depending on their home jurisdiction and the reporting requirements imposed by their respective regulators. In addition, the foreign issuers may be subject to accounting, auditing and financial reporting standards and requirements that differ from those applicable to United States reporting companies.

Securities prices generally are subject to political, economic, financial and social factors that apply to the markets in which they trade and, to a lesser extent, foreign markets. Securities prices outside the United States are subject to political, economic, financial and social factors that apply in foreign countries. These factors, which could negatively affect foreign securities markets, include the possibility of 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. Moreover, foreign economies may differ favorably or unfavorably from the United States economy in important respects such as growth of gross national product, rate of inflation, capital reinvestment, resources and self-sufficiency.

**Exchange Rate Risk:** The share price of the Underlying will fluctuate based in large part 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 Underlying are traded. Accordingly, investors in the Securities will be exposed to currency exchange rate risk with respect to each of the currencies in which the stocks held by the Underlying 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 Underlying will be adversely affected and the price of the Underlying, and consequently, the market value of the Securities may decrease.

**Lack of Liquidity:** The Securities will not be listed on any securities exchange. RBC Capital Markets, LLC ("RBCCM") intends to offer to purchase the Securities in the secondary market, but is not required to do so. Even if there is a secondary market, it may not provide enough liquidity to allow you to trade or sell the Securities easily. Because other dealers are not likely to make a secondary market for the Securities, the price at which you may be able to trade your Securities is likely to depend on the price, if any, at which RBCCM is willing to buy the Securities.

**Potential Conflicts:** We and our affiliates play a variety of roles in connection with the issuance of the Securities, including hedging our obligations under the Securities. In performing these duties, the economic interests of the calculation agent and other affiliates of ours are potentially adverse to your interests as an investor in the Securities. **Potentially Inconsistent Research, Opinions or Recommendations by RBCCM, UBS or Their Affiliates:** RBCCM, UBS, and our respective affiliates may publish research, express opinions or provide recommendations that are inconsistent with investing in or holding the Securities, and which may be revised at any time. Any such research, opinions or recommendations could affect the price of the Underlying, and therefore, the market value of the Securities.

**Uncertain Tax Treatment:** Significant aspects of the tax treatment of an investment in the Securities are uncertain. You should consult your tax adviser about your tax situation.

**Potential Royal Bank of Canada and UBS Impact on Price:** Trading or other transactions by Royal Bank of Canada, UBS and our respective affiliates in the Underlying, its underlying index, or in futures, options, exchange-traded funds or other derivative products on the Underlying or the securities included in the Underlying's underlying index, may adversely affect the market value of the Underlying and, therefore, the market value of the Securities.

**The Probability That the Underlying Will Fall Below the Downside Threshold on the Final Valuation Date Will Depend on the Volatility of the Underlying:** "Volatility" refers to the frequency and magnitude of changes in the price of the Underlying. Greater expected volatility with respect to the Underlying reflects a higher expectation as of the Trade Date that the Underlying could close below its Downside Threshold on the Final Valuation Date, resulting in the loss of some or all of your investment. However, an Underlying's volatility can change significantly over the term of the Securities. The price of the Underlying could fall sharply, which could result in a significant loss of principal.

**The Terms of the Securities at Issuance and Their Market Value Prior to Maturity Will Be Influenced by Many Unpredictable Factors:** Many economic and market factors will influence the terms of the Securities at issuance and their value prior to maturity. These factors are similar in some

ways to those that could affect the value of a combination of instruments that might be used to replicate the payments on the Securities, including a combination of a bond with one or more options or other derivative instruments. For the market value of the Securities, we expect that, generally, the price of the Underlying on any day will affect the value of the Securities more than any other single factor. However, you should not expect the value of the Securities in the secondary market to vary in proportion to changes in the price of the Underlying. The value of the Securities will be affected by a number of other factors that may either offset or magnify each other, including:

- the price of the Underlying;
  - whether the price of the Underlying is below its Downside Threshold;
  - the actual and expected volatility of the price of the Underlying;
    - the time remaining to maturity of the Securities;
  - the dividend rates on the securities held by the Underlying;
  - interest and yield rates in the market generally, as well as in each of the markets of the securities held by the Underlying;
  - a variety of economic, financial, political, regulatory or judicial events;
  - the occurrence of certain events with respect to the Underlying that may or may not require an adjustment to the terms of the Securities; and
  - our creditworthiness, including actual or anticipated downgrades in our credit ratings.
- Some or all of these factors will influence the terms of the Securities at issuance as well as the price you will receive if you choose to sell the Securities 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 the Securities at a substantial discount from the principal amount if, for example, the price of the Underlying is at, below or not sufficiently above, its Initial Underlying Price or Downside Threshold.
- The Anti-Dilution Protection for the Underlying Is Limited: The calculation agent will make adjustments to the Initial Underlying Price and the Final Underlying Price for certain events affecting the shares of the Underlying.
- However, the calculation agent will not be required to make an adjustment in response to all events that could affect the Underlying. If an event occurs that does not require the calculation agent to make an adjustment, the value of the Securities and the Payment at Maturity may be materially and adversely affected.

## Hypothetical Examples and Return Table at Maturity

Hypothetical terms only. Actual terms may vary. See the cover page for actual offering terms.

The following table and hypothetical examples below illustrate the payment at maturity per \$10 Security for a hypothetical range of Underlying Returns from -100.00% to +100.00% and assume a hypothetical Initial Underlying Price of \$100.00, a hypothetical Downside Threshold of \$80.00, and a hypothetical Upside Gearing of 1.31 (the low end of the Upside Gearing range indicated on the cover page). The actual Initial Underlying Price, Downside Threshold, and Upside Gearing for the Securities will be set on the Trade Date. The hypothetical Payment at Maturity examples set forth below are for illustrative purposes only and may not be the actual returns applicable to a purchaser of the Securities. The actual payment at maturity will be determined based on the Final Underlying Price on the Final Valuation Date. You should consider carefully whether the Securities are suitable to your investment goals. The numbers appearing in the table below have been rounded for ease of analysis.

Example 1 - On the Final Valuation Date, the Underlying closes 10% above the Initial Underlying Price. Because the Underlying Return is positive, we will pay you an amount based upon the Underlying Return times the Upside Gearing. The payment at maturity per \$10 principal amount Security will be calculated as follows:

$$\$10 + (\$10 \times 10\% \times 1.31) = \$10 + \$1.31 = \$11.31$$

Example 2 - On the Final Valuation Date, the Underlying closes 10% below the Initial Underlying Price. Because the Underlying Return is negative, but the Final Underlying Price is greater than the Downside Threshold, we will pay you at maturity the principal amount of \$10 per \$10 principal amount Security.

Example 3 - On the Final Valuation Date, the Underlying closes 50.00% below the Initial Underlying Price. Because the Underlying Return is negative and the Final Underlying Price is less than the Downside Threshold, we will pay you at maturity a cash payment of \$5.00 per \$10 principal amount Security (a 50% loss on the principal amount), calculated as follows:

$$\$10 + (\$10 \times -50.00\%) = \$10 - \$5.00 = \$5.00$$

| Hypothetical Final Underlying Price (\$) | Hypothetical Underlying Return <sup>1</sup> | Hypothetical Payment at Maturity (\$) | Return on Securities <sup>2</sup> (%) |
|--|---|---------------------------------------|---------------------------------------|
| \$200.00                                 | 100.00%                                     | \$23.100                              | 131.00%                               |
| \$175.00                                 | 75.00%                                      | \$19.825                              | 98.25%                                |
| \$150.00                                 | 50.00%                                      | \$16.550                              | 65.50%                                |
| \$140.00                                 | 40.00%                                      | \$15.240                              | 52.40%                                |
| \$130.00                                 | 30.00%                                      | \$13.930                              | 39.30%                                |
| \$120.00                                 | 20.00%                                      | \$12.620                              | 26.20%                                |
| \$110.00                                 | 10.00%                                      | \$11.310                              | 11.31%                                |
| \$105.00                                 | 5.00%                                       | \$10.655                              | 6.55%                                 |
| \$102.00                                 | 2.00%                                       | \$10.262                              | 2.62%                                 |
| \$100.00                                 | 0.00%                                       | \$10.000                              | 0.00%                                 |
| \$95.00                                  | -5.00%                                      | \$10.000                              | 0.00%                                 |
| \$90.00                                  | -10.00%                                     | \$10.000                              | 0.00%                                 |
| \$80.00                                  | -20.00%                                     | \$10.000                              | 0.00%                                 |
| \$70.00                                  | -30.00%                                     | \$7.000                               | -30.00%                               |
| \$50.00                                  | -50.00%                                     | \$5.000                               | -50.00%                               |
| \$40.00                                  | -60.00%                                     | \$4.000                               | -60.00%                               |
| \$25.00                                  | -75.00%                                     | \$2.500                               | -75.00%                               |
| \$0.00                                   | -100.00%                                    | \$0.000                               | -100.00%                              |

<sup>1</sup> The Underlying Return excludes any cash dividend payments.

<sup>2</sup> The "total return" is the number, expressed as a percentage, that results from comparing the payment at maturity per \$10 principal amount Security to the purchase price of \$10.00 per Security.

## What Are the Tax Consequences of the Securities?

### U.S. Federal Income Tax Consequences

Set forth below, together with the discussion of U.S. federal income tax in the accompanying product prospectus supplement, prospectus supplement, and prospectus, is a summary of the material U.S. federal income tax consequences relating to an investment in the Securities. The following summary supplements and to the extent inconsistent with supersedes the discussion under the section entitled “Supplemental Discussion of U.S. Federal Income Tax Consequences” in the accompanying product prospectus supplement, the section entitled “Certain Income Tax Consequences” in the accompanying prospectus supplement, and the section entitled “Tax Consequences” in the accompanying prospectus, which you should carefully review prior to investing in the Securities.

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

Alternative tax treatments are also possible and the Internal Revenue Service might assert that a treatment other than that described above is more appropriate. In addition, the Internal Revenue Service has released a notice that may affect the taxation of holders of the Securities. According to the notice, the Internal Revenue Service and the U.S. Treasury Department are actively considering whether the holder of an instrument such as the Securities should be required to accrue ordinary income on a current basis. It is not possible to determine what guidance they will ultimately issue, if any. It is possible, however, that under such guidance, holders of the Securities will ultimately be required to accrue income currently and this could be applied on a retroactive basis. The Internal Revenue Service and the U.S. Treasury Department are also considering other relevant issues, including whether additional gain or loss from such instruments should be treated as ordinary or capital and whether the special “constructive ownership rules” of Section 1260 of the Internal Revenue Code might be applied to such instruments. Holders are urged to consult their tax advisors concerning the significance, and the potential impact, of the above considerations.

Individual holders that own “specified foreign financial assets” may be required to include certain information with respect to such assets with their U.S. federal income tax return. You are urged to consult your own tax advisor regarding such requirements with respect to the Securities.

Under Section 871(m) of the Code, a “dividend equivalent” payment is treated as a dividend from sources within the United States. Such payments generally would be subject to a 30% U.S. withholding tax if paid to a non-U.S. holder. Under U.S. Treasury Department regulations, payments (including deemed payments) with respect to equity-linked instruments (“ELIs”) that are “specified ELIs” may be treated as dividend equivalents if such specified ELIs reference an interest in an “underlying security,” which is generally any interest in an entity taxable as a corporation for U.S. federal income tax purposes if a payment with respect to such interest could give rise to a U.S. source dividend. However, the IRS has issued guidance that states that the U.S. Treasury Department and the IRS intend to amend the U.S. Treasury Department regulations to provide that withholding on dividend equivalent payments will not apply to specified ELIs that are not delta-one instruments and that are issued before January 1, 2019. Based on our determination that the Securities are not delta-one instruments, non-U.S. holders should not be subject to withholding on dividend equivalent payments, if any, under the Securities. However, it is possible that the Securities could be treated as deemed reissued for U.S. federal income tax purposes upon the occurrence of certain events affecting the Underlying or the Securities, and following such occurrence the Securities could be treated as subject to withholding on dividend equivalent payments. Non-U.S. holders that enter, or have entered, into other transactions in respect of the Underlying or the Securities should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the Securities and their other transactions. If any payments are treated as dividend equivalents subject to

withholding, we (or the applicable withholding agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

Please see the discussion under the section entitled “Supplemental Discussion of U.S. Federal Income Tax Consequences” in the accompanying product prospectus supplement for a further discussion of the U.S. federal income tax consequences of an investment in the Securities.

**Canadian Federal Income Tax Consequences**

For a discussion of the material Canadian federal income tax consequences relating to an investment in the Securities, please see the section entitled “Tax Consequences—Canadian Taxation” in the accompanying prospectus, which you should carefully review prior to investing in the Securities.

### Information About the Underlying

Included on the following pages is a brief description of the Underlying. This information has been obtained from publicly available sources. Set forth below is a table that provides the quarterly high and low closing prices for the Underlying. We obtained the closing price information set forth below from the Bloomberg Professional® service (“Bloomberg”) without independent verification. You should not take the historical prices of the Underlying as an indication of future performance.

The Underlying is registered under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and the Investment Company Act of 1940, as amended (the “Investment Company Act”). Companies with securities registered under the Exchange Act and the Investment Company Act are required to file financial and other information specified by the SEC periodically. Information filed by the Underlying with the SEC can be reviewed electronically through a web site maintained by the SEC. The address of the SEC’s web site is <http://www.sec.gov>. Information filed with the SEC by the issuer of the Underlying under the Exchange Act can be located by reference to its SEC Central Index Key number provided below. In addition, information filed with the SEC can be inspected and copied at the Public Reference Section of the SEC, 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Copies of this material can also be obtained from the Public Reference Section, at prescribed rates. Information from outside sources is not incorporated by reference in, and should not be considered part of, this document or any accompanying prospectus or prospectus supplement. We have not independently reviewed the accuracy or completeness of the information contained in outside sources.

#### iShares® MSCI EAFE ETF

iShares® consists of numerous separate investment portfolios (the “iShare® Funds”), including the Underlying. The Underlying seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of its underlying index. The Underlying typically earns income dividends from securities included in the underlying index. These amounts, net of expenses and taxes (if applicable), are passed along to the Underlying’s shareholders as “ordinary income.” In addition, the Underlying realizes capital gains or losses whenever it sells securities. Net long-term capital gains are distributed to shareholders as “capital gain distributions.” However, because the Securities are linked only to the share price of the Underlying, you will not be entitled to receive income, dividend, or capital gain distributions from the Underlying or any equivalent payments.

“iShares®” and BlackRock® are registered trademarks of BlackRock®. BlackRock® has licensed certain trademarks and trade names of BlackRock® for our use. The Securities 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 the Securities or any member of the public regarding the advisability of investing in the Securities. Neither BlackRock® nor the iShares® Funds shall have any obligation or liability in connection with the registration, operation, marketing, trading, or sale of the Securities or in connection with our use of information about the iShares® Funds.

#### iShares® MSCI EAFE ETF

The iShares® MSCI EAFE ETF trades on the NYSE Arca under the ticker symbol “EFA.” The EFA’s investment adviser is BlackRock Fund Advisors (the “Advisor”). 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.

#### General – MSCI Indices

The underlier is intended to measure equity market performance in developed market countries, excluding the United States and Canada. The underlier is a free float-adjusted market capitalization equity index with a base date of December 31, 1969 and an initial value of 100. The underlier is calculated daily in U.S. dollars and published in real time every 60 seconds during market trading hours. As of January 31, 2017, the underlier consisted of companies from the following 21 developed countries: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and United Kingdom.

The underlier 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 underlier 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.

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

- defining the equity universe;
- determining the market investable equity universe for each market;
- determining market capitalization size segments for each market;
- 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 and certain income trusts in Canada, 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. Preferred shares that exhibit characteristics of equity securities are eligible in the equity universe. MSCI will analyse preferred shares on a case-by-case basis. The key criterion for preferred share eligibility is that the share should not have features that make it resemble, and behave like, a fixed income security.
- 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”) will become 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 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 identifying eligible listings for each security in the equity universe, and 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. A security may be listed in the country where it is classified (i.e. local listing) and/or in a different country (i.e. “foreign listing”). Securities may be represented by either a local or foreign listing. A security may be represented by a foreign listing only if:

- The security is classified in a country that meets the Foreign Listing Materiality Requirement, and
- The security’s foreign listing is traded on an eligible stock exchange of: a DM country if the security is classified in a DM country, a DM or an EM country if the security is classified in an EM country, or a DM or an EM or a FM country if the security is classified in a FM country. Securities in that country may not be represented by a foreign listing in the global investable equity universe if a country does not meet the requirement.

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. The size requirement also applies to companies in all developed and emerging markets.
- 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 an EM.

- **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;

- Mid Cap Index; or

- 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;
- 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.

Calculation Methodology for the Underlying Index

The performance of the underlying index is a free float weighted average of the U.S. dollar values of its component securities.

Prices used to calculate the component securities are the official exchange closing prices or prices accepted as such in the relevant market. In the case of a market closure, or if a security does not trade on a specific day or during a specific period, MSCI carries forward the previous day's price (or latest available closing price). In the event of a market outage resulting in any component security price to be unavailable, MSCI will generally use the last reported price for such component security for the purpose of performance calculation unless MSCI determines that another price is more appropriate based on the circumstances. Closing prices are converted into U.S. dollars, as applicable, using the closing exchange rates calculated by WM/Reuters at 4:00 P.M. London Time.

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:
  - a. updating the indices on the basis of a fully refreshed equity universe;
  - b. taking buffer rules into consideration for migration of securities across size and style segments; and
  - c. updating FIFs and Number of Shares ("NOS").
- (ii) Quarterly Index Reviews ("QIRs") in February and August of the Size Segment Indices aimed at:
  - a. including significant new eligible securities (such as IPOs that were not eligible for earlier inclusion) in the index;
  - b. allowing for significant moves of companies within the Size Segment Indices, using wider buffers than in the SAIR;
  - c. and
  - c. 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.

Neither we nor any of our affiliates, including the selling agents, accepts any responsibility for the calculation, maintenance, or publication of, or for any error, omission, or disruption in, the underlier or any successor to the underlier.

## Historical Information

The following table sets forth the quarterly high, low and period-end closing prices of the EFA, as reported by Bloomberg Financial Markets. The historical performance of the EFA should not be taken as an indication of its future performance. We cannot give you assurance that the performance of the EFA will result in the return of any of your initial investment.

| Quarter Begin | Quarter End | Quarterly Closing High | Quarterly Closing Low | Quarterly Period-End Close |
|---------------|-------------|------------------------|-----------------------|----------------------------|
| 1/1/2008      | 3/31/2008   | 78.35                  | 68.31                 | 71.90                      |
| 4/1/2008      | 6/30/2008   | 78.52                  | 68.10                 | 68.70                      |
| 7/1/2008      | 9/30/2008   | 68.04                  | 53.08                 | 56.30                      |
| 10/1/2008     | 12/30/2008  | 55.88                  | 35.71                 | 44.33                      |
| 1/1/2009      | 3/31/2009   | 45.44                  | 31.69                 | 37.59                      |
| 4/1/2009      | 6/30/2009   | 49.04                  | 38.57                 | 45.81                      |
| 7/1/2009      | 9/30/2009   | 55.81                  | 43.91                 | 54.70                      |
| 10/1/2009     | 12/30/2009  | 57.28                  | 52.66                 | 55.66                      |
| 1/1/2010      | 3/31/2010   | 57.96                  | 50.45                 | 56.00                      |
| 4/1/2010      | 6/30/2010   | 58.03                  | 46.29                 | 46.51                      |
| 7/1/2010      | 9/30/2010   | 55.42                  | 47.09                 | 54.92                      |
| 10/1/2010     | 12/30/2010  | 59.46                  | 54.25                 | 57.87                      |
| 1/1/2011      | 3/31/2011   | 61.91                  | 55.31                 | 60.09                      |
| 4/1/2011      | 6/30/2011   | 63.87                  | 57.10                 | 60.14                      |
| 7/1/2011      | 9/30/2011   | 60.80                  | 46.66                 | 47.75                      |
| 10/1/2011     | 12/30/2011  | 55.57                  | 46.45                 | 49.53                      |
| 1/1/2012      | 3/30/2012   | 55.80                  | 49.15                 | 54.90                      |
| 4/1/2012      | 6/29/2012   | 55.51                  | 46.55                 | 49.96                      |
| 7/1/2012      | 9/28/2012   | 55.15                  | 47.62                 | 53.00                      |
| 10/1/2012     | 12/31/2012  | 56.88                  | 51.96                 | 56.82                      |
| 1/1/2013      | 3/28/2013   | 59.89                  | 56.90                 | 58.98                      |
| 4/1/2013      | 6/28/2013   | 63.53                  | 57.03                 | 57.38                      |
| 7/1/2013      | 9/30/2013   | 65.05                  | 57.55                 | 63.79                      |
| 10/1/2013     | 12/31/2013  | 67.06                  | 62.71                 | 67.06                      |
| 1/1/2014      | 3/31/2014   | 68.03                  | 62.31                 | 67.17                      |
| 4/1/2014      | 6/30/2014   | 70.67                  | 66.26                 | 68.37                      |
| 7/1/2014      | 9/30/2014   | 69.25                  | 64.12                 | 64.12                      |
| 10/1/2014     | 12/31/2014  | 64.51                  | 59.53                 | 60.84                      |
| 1/1/2015      | 3/31/2015   | 65.99                  | 58.48                 | 64.17                      |
| 4/1/2015      | 6/30/2015   | 68.42                  | 63.49                 | 63.49                      |
| 7/1/2015      | 9/30/2015   | 65.46                  | 56.25                 | 57.32                      |
| 10/1/2015     | 12/31/2015  | 62.06                  | 57.50                 | 58.75                      |
| 1/1/2016      | 3/31/2016   | 57.80                  | 51.38                 | 57.13                      |
| 4/1/2016      | 6/30/2016   | 59.87                  | 52.64                 | 55.81                      |
| 7/1/2016      | 9/30/2016   | 59.86                  | 54.44                 | 59.13                      |
| 10/1/2016     | 12/30/2016  | 59.20                  | 56.20                 | 57.73                      |
| 1/1/2017      | 3/31/2017   | 62.60                  | 58.09                 | 62.29                      |
| 4/1/2017      | 6/30/2017   | 67.22                  | 61.44                 | 65.20                      |
| 7/1/2017      | 9/30/2017*  | 68.48                  | 64.83                 | 68.48                      |
| 10/1/2017     | 10/2/2017   | 68.42                  | 64.42                 | 68.42                      |

\* This free writing prospectus includes information for the fourth calendar quarter of 2017 for the period from July 1, 2017 through October 2, 2017. Accordingly, the “Quarterly Closing High,” “Quarterly Closing Low” and “Quarterly Period-End Close” data indicated are for this shortened period only and do not reflect complete data for the fourth calendar quarter of 2017.

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The graph below illustrates the performance of the Underlying from January 1, 2008 to October 2, 2017, assuming an Initial Underlying Price of \$68.42, which was the closing price of the Underlying on October 2, 2017, and a Downside Threshold equal to \$54.74, which is 80% of the Initial Underlying Price, rounded to two decimal places (the actual Initial Underlying Price and Downside Threshold will be determined on the Trade Date).

**HISTORIC PERFORMANCE IS NOT AN INDICATION OF FUTURE PERFORMANCE.**

Source: Bloomberg L.P. We have not independently verified the accuracy or completeness of the information obtained from Bloomberg Financial Markets.

#### Supplemental Plan of Distribution (Conflicts of Interest)

We have agreed to indemnify UBS and RBCCM against liabilities under the Securities Act of 1933, as amended, or to contribute payments that UBS and RBCCM may be required to make relating to these liabilities as described in the prospectus supplement and the prospectus. All sales of the Securities will be made to certain fee-based advisory accounts for which UBS is an investment advisor, and UBS will act as placement agent. The purchase price will be \$10 per Security and UBS will forgo any commissions related to these sales. Investors that purchase and hold the Securities in fee-based advisory accounts will pay advisory fees to UBS based on the amount of securities held. Subject to regulatory constraints and market conditions, RBCCM intends to offer to purchase the Securities in the secondary market, but it is not required to do so.

We or our affiliates may enter into swap agreements or related hedge transactions with one of our other affiliates or unaffiliated counterparties in connection with the sale of the Securities and RBCCM and/or an affiliate may earn additional income as a result of payments pursuant to the swap or related hedge transactions. See “Use of Proceeds and Hedging” beginning on page PS-16 of the accompanying product prospectus supplement no. UBS-EQUITY-1. The value of the Securities shown on your account statement may be based on RBCCM’s estimate of the value of the Securities if RBCCM or another of our affiliates were to make a market in the Securities (which it is not obligated to do). That estimate will be based upon the price that RBCCM may pay for the Securities in light of then prevailing market conditions, our creditworthiness and transaction costs. If so specified in the pricing supplement related to the Securities, for a period of approximately three months after the issue date of the Securities, the value of the Securities that may be shown on your account statement may be higher than RBCCM’s estimated value of the Securities at that time. This is because the estimated value of the Securities will not include our hedging costs and profits; however, the value of the Securities shown on your account statement during that period may be a higher amount, potentially reflecting the addition of our estimated costs and profits from hedging the Securities. Any such excess is expected to decrease over time until the end of this period. After this period, if RBCCM repurchases your Securities, it expects to do so at prices that reflect their estimated value. This period may be reduced at RBCCM’s discretion based on a variety of factors, including but not limited to, the amount of the Securities that we repurchase and our negotiated arrangements from time to time with UBS.

For additional information as to the relationship between us and RBCCM, please see the section “Plan of Distribution—Conflicts of Interest” in the prospectus dated January 8, 2016.

#### Structuring the Securities

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

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

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

Terms Incorporated in Master Note

The terms appearing above under the caption “Indicative Terms of the Securities” and the provisions in the accompanying product prospectus supplement no. UBS-EQUITY-1 dated January 4, 2017 under the caption “General Terms of the Securities” are incorporated into the master note issued to DTC, the registered holder of the Securities.