

ROYAL BANK OF CANADA  
 Form FWP  
 April 10, 2017

ISSUER FREE WRITING PROSPECTUS

Filed Pursuant to Rule 433

Registration Statement No. 333-208507

Dated April 10, 2017

Royal Bank of Canada Capped GEARS

\$• Securities Linked to a Basket of Four ETFs due on or about July 17, 2018

Investment Description

Capped GEARS (each, a “Security” and collectively, the “Securities”) are unconditional, unsecured and unsubordinated debt securities issued by Royal Bank of Canada with returns linked to an unequally weighted basket (the “Underlying,” or the “Basket”) of four ETFs, consisting of the SPDR<sup>®</sup>S&P 500<sup>®</sup> ETF (38% weighting), the iShares<sup>®</sup> Russell 2000 ETF (17% weighting), the iShares<sup>®</sup> MSCI EAFE ETF (31% weighting), and the iShares<sup>®</sup> MSCI Emerging Markets ETF (14% weighting) (the “Index Funds” and, each, an “Index Fund”). If the Underlying Return (as defined below) is positive, we will repay the principal amount at maturity plus pay a return equal to 3 (the “Upside Gearing”) times the Underlying Return, up to the Maximum Gain. If the Underlying Return is negative, we will pay less than the principal amount at maturity and you will lose 1% of the principal amount of your Securities for every 1% decline in the level of the Underlying, up to a loss of 100% of your investment. Investing in the Securities involves significant risks. The Securities do not pay dividends or interest. You may lose some or all of the 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. The Securities will not be listed on any securities exchange. Non-U.S. holders will not be subject to withholding on dividend equivalent payments under Section 871(m) of the U.S. Internal Revenue Code. Please see the discussion below under “U.S. Federal Income Tax Consequences,” which applies to the Securities.

Features

q Enhanced Growth Potential Up to the Maximum Gain — 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, up to the Maximum Gain.

q Full Downside Market Exposure — If the Underlying Return is zero, we will pay the full principal amount at maturity. However, if the Underlying Return is negative, investors will be exposed to the full downside performance of the Underlying, and we will pay less than the full principal amount, resulting in a loss of the 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. Any payment on the Securities, including any repayment of principal, is subject to our creditworthiness.

Key Dates<sup>1</sup>

Trade Date<sup>1</sup>

April 12, 2017

Settlement Date<sup>1</sup>

April 18,

2017

Final Valuation Date<sup>2</sup>

July 12,

2018

Maturity Date<sup>2</sup>

July

17, 2018

<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. 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-4 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.

Security Offering

We are offering Capped GEARS Linked to an unequally weighted basket of four ETFs. The return on the principal amount is subject to, and will not exceed, the predetermined Maximum Gain, which will be determined on the Trade Date. The Securities are offered at a minimum investment of 100 Securities at the Price to Public described below. The indicative Maximum Gain range for the Securities is listed below. The actual Maximum Gain will be determined on the Trade Date.

Underlying	Upside Gearing	Maximum Gain	Initial Underlying Level	CUSIP	ISIN
Basket of Four ETFs 3		12.00% to 14.00%	100.00		78014E612US78014E6124

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	Fees and Commissions <sup>(1)</sup>	Proceeds to Us
	Total/Per Security	Total/Per Security	Total/Per Security
	\$10.00	\$0.20	\$9.80

(1) UBS Financial Services Inc., which we refer to as UBS, will receive a commission that will depend on market conditions on the Trade Date. In no event will the commission received by UBS exceed \$0.20 per \$10 principal amount of the Securities. See “Supplemental Plan of Distribution (Conflicts of Interest)” on page 13 of this free writing prospectus.

The initial estimated value of the Securities as of the date of this document is \$9.7184 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” beginning on page 5, “Supplemental Plan of Distribution (Conflicts of Interest)” on page 22 and “Structuring the Securities” on page 22 of 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 some or all of the principal amount of the Securities and are willing to make an investment that has similar downside market risk as a hypothetical investment in the Underlying.
- .. You believe that the level of the Underlying will appreciate over the term of the Securities and that the appreciation is unlikely to exceed the Maximum Gain.
- .. You understand and accept that your potential return is limited by the Maximum Gain and you would be willing to invest in the Securities if the Maximum Gain was set to the bottom of the range indicated on the cover page of this free writing prospectus (the actual Maximum Gain will be determined 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 level of the Underlying.
- .. You fully understand and accept the risks associated with the Index Funds.
- .. You do not seek current income from your investment and are willing to forgo dividends paid on the Index Funds.
- .. 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 some or all of the principal amount of the Securities, and you are not willing to make an investment that has similar downside market risk as a hypothetical investment in the Underlying.
- .. You believe that the level of the Underlying will decline over the term of the Securities, or you believe the level of the Underlying will appreciate over the term of the Securities by a percentage that exceeds the Maximum Gain.
- .. You seek an investment that has unlimited return potential without a cap on appreciation.
- .. You would be unwilling to invest in the Securities if the Maximum Gain was set to the bottom of the range indicated on the cover page of this free writing prospectus (the actual Maximum Gain will be determined 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 level of the Underlying.
- .. You do not fully understand or accept the risks associated with the Index Funds.
- .. You seek current income from this investment or prefer to receive the dividends paid on the Index Funds.
- .. 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” beginning on page PS-4 of the accompanying product prospectus supplement no. UBS-EQUITY-1 for risks related to an investment in the Securities. In addition, you should review carefully “Information About the Index Funds” below for more information about these Index Funds.



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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 15 months		
	An unequally weighted basket consisting of the following ETFs:		
	Index Funds	Bloomberg Symbols	Weightings
			Initial Prices
Underlying:	SPDR <sup>®</sup> S&P 500 <sup>®</sup> ETF	SPY	38%
	iShares <sup>®</sup> Russell 2000 ETF	IWM	17%
	iShares <sup>®</sup> MSCI EAFE ETF	EFA	31%
	iShares <sup>®</sup> MSCI Emerging Markets ETF	EEM	14%
Upside Gearing:	3		
Maximum Gain:	The Maximum Gain is expected to be between 12.00% to 14.00% (to be determined on the Trade Date).		
	If the Underlying Return is positive or zero, we will pay you:		
	\$10 + (\$10 x the lesser of (i) Upside Gearing x Underlying Return and (ii) Maximum Gain)		
Payment at Maturity (per \$10 Security):	If the Underlying Return is negative, we will pay you:		
	\$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:	<u>Final Underlying Level – Initial Underlying Level</u>		
Initial Underlying Level:	Initial Underlying Level		
Final Underlying Level:	To be set to 100 on the Trade Date.		
Index Fund Return of Each Index Fund:	100 × [1 + (the sum of the Index Fund Return of each Index Fund multiplied by its Weighting)]		
	The Index Fund Return with respect to each Index Fund reflects the performance of that Index Fund, calculated as follows:		
	<u>Final Price – Initial Price</u>		
	Initial Price		
Initial Price:	With respect to each Index Fund, the Closing Price of that Index Fund on the Trade Date, as indicated in the table above, subject to adjustment as described in the section “General Terms of the Securities—Anti-dilution Adjustments” of the product prospectus supplement.		
Final Price:	With respect to each Index Fund, the Closing Price of that Index Fund on the Final Valuation Date.		
Investment Timeline			
Trade Date:	The Maximum Gain is set. The Initial Price of each Index Fund is determined and the Initial Underlying Level is set to 100.		
Maturity Date:	The Final Price and the Index Fund Return of each Index Fund, the Final Underlying Level and Underlying Return are determined.		
	If the Underlying Return is positive or zero, 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 multiplied by the Upside Gearing, subject to the Maximum Gain. Your payment at maturity per \$10 Security will be equal to:		
	\$10 + (\$10 x the lesser of (i) Upside Gearing x Underlying Return and (ii) Maximum Gain)		

If the Underlying Return is negative, we will pay you a cash payment that is less than the principal amount of \$10.00 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.

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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.

## 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. Investing in the Securities is not equivalent to investing directly in the Underlying or the securities held by the Index Funds. 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 Level is less than the Initial Underlying Level, 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 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 and does not exceed the Maximum Gain.

**The Appreciation Potential of the Securities Is Limited by the Maximum Gain:** If the Underlying Return is positive, we will pay you \$10 per Security at maturity plus an additional return that will not exceed the Maximum Gain, regardless of the appreciation in the Underlying, which may be significant. Therefore, you will not benefit from any appreciation of the Underlying in excess of an amount that, when multiplied by the Upside Gearing, exceeds the Maximum Gain and your return on the Securities may be less than your return would be on a hypothetical direct investment in the Index Funds.

**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. Your investment may not reflect the full opportunity cost to you when you take into account factors that affect the time value of money.

**Changes in the Level of One or More of the Index Funds May Be Offset by Changes in the Level of One or More of the Other Index Funds:** Changes in the prices of the Index Funds may not correlate with each other. At a time when the price of one of the Index Funds increases, the price of any other Index Fund may not increase as much or may even decline. Therefore, in calculating the Final Underlying Level, an increase in the price of one of the Index Funds may be moderated, or more than offset, by a lesser increase or decline in the price of any other Index Funds. In addition, because the SPY makes up 38% of the Underlying, we expect that generally the market value of your Securities and your payment at maturity will depend to a greater extent on the performance of the SPY than the performance of each of the other Index Funds. Further, high correlation of movements in the prices of the Index Funds during periods of negative returns among the Index Funds could have an adverse effect on any payment on the Securities.

**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 level of the Underlying, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to public of the underwriting discount, and 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 the underwriting discount and 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 will be paid at maturity.

**Owning the Securities Is Not the Same as Owning an Index Fund or the Stocks Comprising an Index Fund's**

**Underlying Index:** The return on your Securities may not reflect the return you would realize if you actually owned an Index Fund or stocks included in an Index Fund'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 an Index Fund or these stocks would have, and any such dividends will not be incorporated in the determination of the Underlying Return.

**The Policies of any Index Fund's Investment Advisers Could Affect the Amount Payable on the Securities and Their Market Value:** The policies of an Index Fund's investment adviser concerning the management of the relevant Index Fund, additions, deletions or substitutions of the securities held by an Index Fund could affect the market price of shares of the relevant Index Fund 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 any Index Fund investment adviser changes these policies, for example, by changing the manner in which it manages that Index Fund, or if any Index Fund investment adviser discontinues or suspends maintenance of an Index Fund, in which case it may become difficult to determine the market value of the Securities. The relevant investment advisers have no connection to the offering of the Securities and have no obligations to you as an investor in the Securities in making its decisions regarding the Index Funds.

**Historical Prices of any Index Fund Should Not Be Taken as an Indication of Its Future Prices During the Term of the Securities:** The trading prices of the Index Funds will determine the value of the Securities at any given time. However, it is impossible to predict whether the price of any Index Fund will rise or fall, and trading prices of the common stocks held by the Index Funds will be influenced by complex and interrelated political, economic, financial and other factors that can affect the issuers of those stocks, and therefore, the level of the Underlying.

**Each Index Fund and its Underlying Index Are Different:** The performance of an Index Fund may not exactly replicate the performance of its underlying index, because that Index Fund 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 an Index Fund 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 the Index Fund or due to other circumstances. An Index Fund 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 an Index Fund may be unavailable in the secondary market, market participants may be unable to calculate accurately the net asset value per share of an Index Fund and the liquidity of an Index Fund may be adversely affected. This kind of market volatility may also disrupt the ability of market participants to create and redeem shares of an Index Fund. Further, market volatility may adversely affect, sometimes materially, the prices at which market participants are willing to buy and sell shares of an Index Fund. As a result, under these circumstances, the market value of shares of an Index Fund may vary substantially from the net asset value per share of an Index Fund. For all of the foregoing reasons, the performance of an Index Fund may not correlate with the performance of its underlying index as well as the net asset value per share of an Index Fund, 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 Index Funds are not managed according to traditional methods of "active" investment management, which involve the buying and selling of securities based on economic, financial and market analysis and investment judgment. Instead, these Index Funds, utilizing a "passive" or indexing investment approach, attempt to approximate the investment performance of its respective underlying index by investing in a portfolio of securities that generally replicate its underlying index. Therefore, unless a specific security is removed from its underlying index, these Index Funds generally would not sell a security because the security's issuer was in financial trouble. In addition, the Index Funds are subject to the risk that the investment strategy of their respective investment advisors may not produce the intended results.

Risks Associated with Small-Capitalization Stocks: The IWM tracks its underlying index, which consists of stocks issued by companies with relatively small market capitalizations. These companies often have greater stock price volatility, lower trading volume and less liquidity than large-capitalization companies. As a result, the share price of the IWM may be more volatile than that of a market measure that does not track solely small-capitalization stocks. Stock prices of small-capitalization companies are also generally more vulnerable than those of large-capitalization companies to adverse business and economic developments, and the stocks of small-capitalization companies may be thinly traded, and be less attractive to many investors if they do not pay dividends. In addition, small capitalization companies are typically less well-established and less stable financially than large-capitalization companies and may depend on a small number of key personnel, making them more vulnerable to loss of those individuals. Small capitalization companies tend to have lower revenues, less diverse product lines, smaller shares of their target markets, fewer financial resources and fewer competitive strengths than large-capitalization companies. These companies may also be more susceptible to adverse developments related to their products or services.

Risks Associated with Foreign Securities Markets: Because foreign companies or foreign equity securities held by the EFA and the EEM 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 prices of the EFA and the EEM will fluctuate based in large part upon its respective 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 EFA and the EEM 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 EFA and the EEM 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 EFA and the EEM will be adversely affected and the level of the Underlying, and consequently, the market value of the Securities may decrease.

**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 Securities are highly susceptible, before making a decision to invest in the Securities.

**Lack of Liquidity:** The Securities will not be listed on any securities exchange. 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 level 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 or the securities included in an Index Fund's underlying index, or in futures, options, exchange-traded funds or other derivative products on the Underlying or those securities, 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 Initial Underlying Level 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 an Index Fund. Greater expected volatility with respect to the Underlying reflects a higher expectation as of the Trade Date that the Underlying could close below its Initial Underlying Level on the Final Valuation Date, resulting in the loss of some or all of your investment. However, an Index Fund's volatility can change significantly over the term of the Securities. The price of an Index Fund 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 level 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 level 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 each Index Fund;
- the actual and expected volatility of the price of each Index Fund;
  - the time remaining to maturity of the Securities;
- the dividend rates on the securities held by the Index Funds;
- interest and yield rates in the market generally, as well as in each of the markets of the securities held by the Index Funds;
- a variety of economic, financial, political, regulatory or judicial events;
- the occurrence of certain events with respect to the Index Funds 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 level of the Underlying decreases.

The Anti-Dilution Protection for Each Index Fund Is Limited: The calculation agent will make adjustments to the Initial Price and the Final Price of each Index Fund for certain events affecting the shares of the Index Funds. However, the calculation agent will not be required to make an adjustment in response to all events that could affect an Index Fund. 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 \$10.00 Security for a hypothetical range of Underlying Returns from -100.00% to +100.00% and assume a hypothetical Initial Underlying Level of 100.00 and a hypothetical Maximum Gain of 12.00% (the low end of the range set forth above), and reflect the Upside Gearing of 3. 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 Level 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 2% above the Initial Underlying Level. Because the Underlying Return is positive, we will pay you an amount based upon the lesser of the Underlying Return times the Upside Gearing and the hypothetical Maximum Gain. Since the Underlying Return of 2% times the Upside Gearing is less than the hypothetical Maximum Gain, we will pay you at maturity a cash payment of \$10.60 per \$10 principal amount Security, calculated as follows:

$$\$10 + (\$10 \times 2\% \times 3) = \$10 + \$0.60 = \$10.60$$

Example 2 – On the Final Valuation Date, the Underlying closes 40% above the Initial Underlying Level. Because the Underlying Return is positive, we will pay you an amount based upon the lesser of the Underlying Return times the Upside Gearing and the hypothetical Maximum Gain. Since the Underlying Return of 40% times the Upside Gearing is greater than the hypothetical Maximum Gain, we will pay you at maturity a cash payment of \$11.20 per \$10 principal amount Security, calculated as follows:

$$\$10 + (\$10 \times 12.00\%) = \$10 + \$1.20 = \$11.20$$

Example 3 – On the Final Valuation Date, the Underlying closes 40% below the Initial Underlying Level. Because the Underlying Return is -40%, which is negative, we will pay you at maturity a cash payment of \$6.00 per \$10 principal amount Security (a 40% loss on the principal amount), calculated as follows:

$$\$10 + (\$10 \times -40\%) = \$10 - \$4.00 = \$6.00$$

Hypothetical Final Underlying Level (\$)	Hypothetical Underlying Return <sup>1</sup>	Hypothetical Payment at Maturity (\$)	Hypothetical Total Return on Securities <sup>2</sup>
\$200.00	100.00%	\$11.20	12.00%
\$175.00	75.00%	\$11.20	12.00%
\$150.00	50.00%	\$11.20	12.00%
\$140.00	40.00%	\$11.20	12.00%
\$130.00	30.00%	\$11.20	12.00%
\$120.00	20.00%	\$11.20	12.00%
\$110.00	10.00%	\$11.20	12.00%
\$104.00	4.00%	\$11.20	12.00%
\$103.00	3.00%	\$10.90	9.00%
\$102.00	2.00%	\$10.60	6.00%
\$100.00	0.00%	\$10.00	0.00%
\$90.00	-10.00%	\$9.00	-10.00%
\$80.00	-20.00%	\$8.00	-20.00%
\$75.00	-25.00%	\$7.50	-25.00%
\$70.00	-30.00%	\$7.00	-30.00%
\$60.00	-40.00%	\$6.00	-40.00%
\$50.00	-50.00%	\$5.00	-50.00%
\$25.00	-75.00%	\$2.50	-75.00%
\$0.00	-100.00%	\$0.00	-100.00%

(1) The Underlying Return excludes any cash dividend payments.

(2) 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 per Security.

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## 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 a security with terms described herein 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 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 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 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.

A "dividend equivalent" payment is treated as a dividend from sources within the United States and 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, U.S. Treasury Department regulations 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, 2018. 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 paying 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 Index Funds

We have derived the following information regarding each of the applicable Index Funds 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 Index Funds and the Index Funds will have no obligations with respect to the Securities. This document relates only to the Securities and does not relate to the shares of any of the Index Fund or any securities included in any of the underlying indices of the Index Funds. Neither we nor our affiliates participates in the preparation of the publicly available documents described below. Neither we nor our affiliates has made any due diligence inquiry with respect to any of the Index Funds in connection with the offering of any of the Securities. 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 Index Funds 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 Index Funds could affect the price of the shares of the applicable Index Fund after the Trade Date, and therefore could affect the payment at maturity. The selection of the Index Funds relating to the Securities is not a recommendation to buy or sell the shares of any of the Index Funds. Neither we nor any of our affiliates make any representation to you as to the performance of the shares of any of the Index Funds. 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 Index Fund may be obtained through the SEC's website at <http://www.sec.gov>.

#### The SPDR<sup>®</sup> S&P 500<sup>®</sup> ETF Trust

The shares of the SPDR<sup>®</sup> S&P 500<sup>®</sup> ETF trade on the NYSE Arca under the symbol "SPY." The SPY's investment adviser is BlackRock Fund Advisors.

The SPY seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P 500<sup>®</sup> Index (the "SPX Index"). To maintain the correspondence between the composition and weightings of stocks held by the SPY and component stocks of the SPX Index, the SPY adjusts its holdings from time to time to conform to periodic changes in the identity and/or relative weightings of the index securities.

The SPY utilizes a "passive" or "indexing" investment approach in attempting to track the performance of the SPX Index. The SPY seeks to invest in substantially all of the securities that comprise the SPX Index. The SPY typically earns income from dividends from securities that it holds. These amounts, net of expenses and taxes (if applicable), are passed along to the SPY's shareholders as "ordinary income." In addition, the SPY realizes capital gains or losses whenever it sells securities. Net long-term capital gains are distributed to shareholders as "capital gain distributions."

#### The S&P 500<sup>®</sup> Index (the "SPX Index")

S&P Dow Jones Indices LLC ("S&P") owns the copyright and all other rights to the SPX Index. S&P has no obligation to continue to publish, and may discontinue publication of, the SPX Index.

The SPX Index is intended to provide an indication of the pattern of common stock price movement. The calculation of the level of the SPX Index is based on the relative value of the aggregate market value of the common stocks of 500 companies as of a particular time compared to the aggregate average market value of the common stocks of 500 similar companies during the base period of the years 1941 through 1943.

S&P chooses companies for inclusion in the SPX Index with the aim of achieving a distribution by broad industry groupings that approximates the distribution of these groupings in the common stock population of its Stock Guide Database of over 10,000 companies, which S&P uses as an assumed model for the composition of the total market. Relevant criteria employed by S&P include the viability of the particular company, the extent to which that company represents the industry group to which it is assigned, the extent to which the market price of that company's common stock generally is responsive to changes in the affairs of the respective industry, and the market value and trading activity of the common stock of that company. S&P from time to time, in its sole discretion, may add companies to, or delete companies from, the SPX to achieve the objectives stated above.

S&P calculates the SPX Index by reference to the prices of the constituent stocks of the SPX without taking account of the value of dividends paid on those stocks. Effective with the September 2015 rebalance, consolidated share class lines will no longer be included in the SPX Index. Each share class line will be subject to public float and liquidity criteria individually, but the company's total market capitalization will be used to evaluate each share class line. This may result in one listed share class line of a company being included in the SPX Index while a second listed share

class line of the same company is excluded.

#### Calculation of the SPX Index

Historically, the market value of any component stock of the SPX Index was calculated as the product of the market price per share and the number of then outstanding shares of such component stock. In March 2005, S&P began shifting the SPX Index halfway from a market capitalization weighted formula to a float-adjusted formula, before moving the SPX Index to full float adjustment on September 16, 2005. S&P's criteria for selecting stocks for the SPX Index did not change with the shift to float adjustment. However, the adjustment affects each company's weight in the SPX Index.

Under float adjustment, the share counts used in calculating the SPX Index reflect only those shares that are available to investors, not all of a company's outstanding shares. Float adjustment excludes shares that are closely held by control groups, other publicly traded companies or government agencies.

In September 2012, all shareholdings representing more than 5% of a stock's outstanding shares, other than holdings by "block owners," were removed from the float for purposes of calculating the SPX Index. Generally, these "control holders" will include officers and directors, private equity, venture capital and special equity firms, other publicly traded companies that hold shares for control, strategic partners, holders of restricted shares, ESOPs, employee and family trusts, foundations associated with the company, holders of unlisted share classes of stock, government entities at all levels (other than government retirement/pension funds) and any individual person who controls a 5% or greater stake in a company as reported in regulatory filings. However, holdings by block owners, such as depository banks, pension funds, mutual funds and ETF providers, 401(k) plans of the company, government retirement/pension funds, investment funds of insurance companies, asset managers and investment funds, independent foundations and savings and investment plans, will ordinarily be considered part of the float.

Treasury stock, stock options, equity participation units, warrants, preferred stock, convertible stock, and rights are not part of the float. Shares held in a trust to allow investors in countries outside the country of domicile, such as depository shares and Canadian exchangeable shares are normally part of the float unless those shares form a control block. If a company has multiple classes of stock outstanding, shares in an unlisted or non-traded class are treated as a control block.

For each stock, an investable weight factor (“IWF”) is calculated by dividing the available float shares by the total shares outstanding. As of September 21, 2012, available float shares are defined as the total shares outstanding less shares held by control holders. This calculation is subject to a 5% minimum threshold for control blocks. For example, if a company’s officers and directors hold 3% of the company’s shares, and no other control group holds 5% of the company’s shares, S&P would assign that company an IWF of 1.00, as no control group meets the 5% threshold. However, if a company’s officers and directors hold 3% of the company’s shares and another control group holds 20% of the company’s shares, S&P would assign an IWF of 0.77, reflecting the fact that 23% of the company’s outstanding shares are considered to be held for control. For companies with multiple classes of stock, S&P calculates the weighted average IWF for each stock using the proportion of the total company market capitalization of each share class as weights.

The SPX Index is calculated using a base-weighted aggregate methodology. The level of the SPX Index reflects the total market value of all 500 component stocks relative to the base period of the years 1941 through 1943. An indexed number is used to represent the results of this calculation in order to make the level easier to use and track over time. The actual total market value of the component stocks during the base period of the years 1941 through 1943 has been set to an indexed level of 10. This is often indicated by the notation 1941-43 = 10. In practice, the daily calculation of the SPX Index is computed by dividing the total market value of the component stocks by the “index divisor.” By itself, the index divisor is an arbitrary number. However, in the context of the calculation of the SPX Index, it serves as a link to the original base period level of the SPX Index. The index divisor keeps the SPX Index comparable over time and is the manipulation point for all adjustments to the SPX Index, which is index maintenance.

#### Index Maintenance

Index maintenance includes monitoring and completing the adjustments for company additions and deletions, share changes, stock splits, stock dividends, and stock price adjustments due to company restructuring or spinoffs. Some corporate actions, such as stock splits and stock dividends, require changes in the common shares outstanding and the stock prices of the companies in the SPX Index, and do not require index divisor adjustments.

To prevent the level of the SPX Index from changing due to corporate actions, corporate actions which affect the total market value of the SPX Index require an index divisor adjustment. By adjusting the index divisor for the change in market value, the level of the SPX Index remains constant and does not reflect the corporate actions of individual companies in the SPX Index. Index divisor adjustments are made after the close of trading and after the calculation of the closing level.

Changes in a company’s shares outstanding of 5.00% or more due to mergers, acquisitions, public offerings, tender offers, Dutch auctions, or exchange offers are made as soon as reasonably possible. Share changes due to mergers or acquisitions of publicly held companies that trade on a major exchange are implemented when the transaction occurs, even if both of the companies are not in the same headline index, and regardless of the size of the change. All other changes of 5.00% or more (due to, for example, company stock repurchases, private placements, redemptions, exercise of options, warrants, conversion of preferred stock, notes, debt, equity participation units, at the market offerings, or other recapitalizations) are made weekly and are announced on Fridays for implementation after the close of trading on the following Friday. Changes of less than 5.00% are accumulated and made quarterly on the third Friday of March, June, September, and December, and are usually announced two to five days prior.

If a change in a company’s shares outstanding of 5.00% or more causes a company’s IWF to change by five percentage points or more, the IWF is updated at the same time as the share change. IWF changes resulting from partial tender offers are considered on a case-by-case basis.

## Historical Information

The following table sets forth the quarterly high, low and period-end closing prices of the SPY, as reported by Bloomberg Financial Markets. The historical performance of the SPY should not be taken as an indication of its future performance. We cannot give you assurance that the performance of the SPY 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	\$144.94	\$127.90	\$131.89
4/1/2008	6/30/2008	\$143.08	\$127.69	\$128.04
7/1/2008	9/30/2008	\$130.70	\$111.38	\$116.54
10/1/2008	12/31/2008	\$116.00	\$75.95	\$90.33
1/1/2009	3/31/2009	\$93.44	\$68.11	\$79.44
4/1/2009	6/30/2009	\$95.09	\$81.00	\$91.92
7/1/2009	9/30/2009	\$107.33	\$87.95	\$105.56
10/1/2009	12/31/2009	\$112.67	\$102.54	\$111.44
1/1/2010	3/31/2010	\$117.40	\$105.87	\$116.99
4/1/2010	6/30/2010	\$121.79	\$103.22	\$103.22
7/1/2010	9/30/2010	\$114.79	\$102.20	\$114.12
10/1/2010	12/31/2010	\$125.92	\$113.75	\$125.78
1/1/2011	3/31/2011	\$134.57	\$126.21	\$132.51
4/1/2011	6/30/2011	\$136.54	\$126.81	\$131.97
7/1/2011	9/30/2011	\$135.46	\$112.26	\$113.17
10/1/2011	12/31/2011	\$128.68	\$109.93	\$125.50
1/1/2012	3/31/2012	\$141.61	\$127.49	\$140.72
4/1/2012	6/30/2012	\$141.79	\$128.10	\$136.27
7/1/2012	9/30/2012	\$147.24	\$133.51	\$143.93
10/1/2012	12/31/2012	\$146.27	\$135.70	\$142.52
1/1/2013	3/31/2013	\$156.73	\$145.53	\$156.55
4/1/2013	6/30/2013	\$167.11	\$154.14	\$160.01
7/1/2013	9/30/2013	\$173.14	\$161.16	\$168.10
10/1/2013	12/31/2013	\$184.67	\$165.48	\$184.67
1/1/2014	3/31/2014	\$188.26	\$174.15	\$187.04
4/1/2014	6/30/2014	\$196.48	\$181.48	\$195.72
7/1/2014	9/30/2014	\$201.82	\$190.99	\$197.02
10/1/2014	12/31/2014	\$208.72	\$186.27	\$205.50
1/1/2015	3/31/2015	\$211.99	\$198.97	\$206.43
4/1/2015	6/30/2015	\$213.50	\$205.42	\$205.85
7/1/2015	9/30/2015	\$212.59	\$187.27	\$191.63
10/1/2015	12/31/2015	\$211.00	\$192.13	\$203.89
1/1/2016	3/31/2016	\$206.10	\$183.03	\$205.56
4/1/2016	6/30/2016	\$212.39	\$199.53	\$209.53
7/1/2016	9/30/2016	\$219.09	\$208.39	\$216.30
10/1/2016	12/31/2016	\$227.76	\$208.55	\$223.53
1/1/2017	3/31/2017	\$239.78	\$225.24	\$235.74
4/1/2017	4/5/2017*	\$235.48	\$234.78	\$234.78

\* This free writing prospectus includes information for the second calendar quarter of 2017 for the period from April 1, 2017 through April 5, 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 second calendar quarter of 2017.

The graph below illustrates the performance of the SPY from January 1, 2008 to April 5, 2017.

**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.

## iShares Funds

iShares consists of numerous separate investment portfolios (the “iShares Funds”), including the iShares® Russell 2000 ETF (“the IWM), the iShare® MSCI EAFE ETF (“the EFA) and the iShare® MSCI Emerging Markets ETF (the “EEM”). Each of the IWM, EFA and EEM seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of their respective underlying indices. The IWM, EFA and EEM typically earn income from dividends from securities held by the IWM, EFA and EEM. These amounts, net of expenses and taxes (if applicable), are passed along to shareholders of the IWM EFA and EEM as “ordinary income.” In addition, the IWM, EFA and EEM realize 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 applicable notes are linked only to the share price of the applicable Index Fund, you will not be entitled to receive income, dividend, or capital gain distributions from the applicable Index Fund or any equivalent payments.

“iShare®” and “BlackRock®” are registered trademarks of BlackRock®. The Notes are not sponsored, endorsed, sold, or promoted by BlackRock®, or by any of the iShares® Funds. Neither BlackRock® nor the iShares® Funds make any representations or warranties to the owners of any of the Securities or any member of the public regarding the advisability of investing in any of 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 any of the Securities or in connection with our use of information about any of the Index Funds or any of the iShares® Funds.

### The iShares® Russell 2000 ETF

The IWM seeks to track the investment results of the Russell 2000® Index. The shares of this Index Fund trade on the NYSE Arca, Inc. under the symbol “IWM.”

### Russell 2000® Index

The Russell 2000® Index (Bloomberg L.P. index symbol “RTY”) was developed by Russell Investments (“Russell”) before FTSE International Limited (“FTSE”) and Russell combined in 2015 to create FTSE Russell, which is wholly owned by London Stock Exchange Group. Russell began dissemination of the RTY on January 1, 1984. The RTY was set to 135 as of the close of business on December 31, 1986. FTSE Russell calculates and publishes the RTY. The RTY is designed to track the performance of the small capitalization segment of the U.S. equity market. As a subset of the Russell 3000® Index, the RTY consists of the smallest 2,000 companies included in the Russell 3000® Index. The Russell 3000® Index measures the performance of the largest 3,000 U.S. companies, representing approximately 98% of the investable U.S. equity market. The RTY is determined, comprised, and calculated by FTSE Russell without regard to the Securities.

### Selection of Stocks Comprising the RTY

All companies eligible for inclusion in the RTY must be classified as a U.S. company under the index sponsor’s country-assignment methodology. If a company is incorporated, has a stated headquarters location, and trades in the same country (American Depositary Receipts and American Depositary Shares are not eligible), then the company is assigned to its country of incorporation. If any of the three factors are not the same, the index sponsor defines three Home Country Indicators (“HCIs”): country of incorporation, country of headquarters, and country of the most liquid exchange (as defined by a two-year average daily dollar trading volume) (“ADDTV”) from all exchanges within a country. Using the HCIs, the index sponsor compares the primary location of the company’s assets with the three HCIs. If the primary location of its assets matches any of the HCIs, then the company is assigned to the primary location of its assets. If there is insufficient information to determine the country in which the company’s assets are primarily located, the index sponsor will use the primary country from which the company’s revenues are primarily derived for the comparison with the three HCIs in a similar manner. The index sponsor uses the average of two years of assets or revenues data to reduce potential turnover. If conclusive country details cannot be derived from assets or revenues data, the index sponsor will assign the company to the country of its headquarters, which is defined as the address of the company’s principal executive offices, unless that country is a Benefit Driven Incorporation “BDI” country, in which case the company will be assigned to the country of its most liquid stock exchange. BDI countries include: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bonaire, British Virgin Islands, Cayman Islands, Channel Islands, Cook Islands, Curacao, Faroe Islands, Gibraltar, Guernsey, Isle of Man, Jersey, Liberia, Marshall Islands, Panama, Saba, Sint Eustatius, Sint Maarten, and Turks and Caicos Islands. For any companies incorporated or headquartered in a U.S. territory, including countries such as Puerto Rico, Guam, and U.S. Virgin Islands, a U.S. HCI is assigned.



All securities eligible for inclusion in the RTY must trade on a major U.S. exchange. Stocks must have a closing price at or above \$1.00 on their primary exchange on the last trading day in May to be eligible for inclusion during annual reconstitution. However, in order to reduce unnecessary turnover, if an existing member's closing price is less than \$1.00 on the last day of May, it will be considered eligible if the average of the daily closing prices (from its primary exchange) during the month of May is equal to or greater than \$1.00. Initial public offerings are added each quarter and must have a closing price at or above \$1.00 on the last day of their eligibility period in order to qualify for index inclusion. If an existing stock, does not trade on the "rank day" (typically the last trading day in May, but a confirmed timetable is announced each Spring) but does have a closing price at or above \$1.00 on another eligible U.S. exchange, that stock will be eligible for inclusion.

An important criterion used to determine the list of securities eligible for the RTY is total market capitalization, which is defined as the market price as of the last trading day in May for those securities being considered at annual reconstitution times the total number of shares outstanding. Where applicable, common stock, non-restricted exchangeable shares and partnership units/membership interests are used to determine market capitalization. Any other form of shares such as preferred stock, convertible preferred stock, redeemable shares, participating preferred stock, warrants and rights, installment receipts or trust receipts, are excluded from the calculation. If multiple share classes of common stock exist, they are combined. In cases where the common stock share classes act independently of each other (e.g., tracking stocks), each class is considered for inclusion separately. If multiple share classes exist, the pricing vehicle will be designated as the share class with the highest two-year trading volume as of the rank day in May.

Companies with a total market capitalization of less than \$30 million are not eligible for the RTY. Similarly, companies with only 5% or less of their shares available in the marketplace are not eligible for the RTY. Royalty trusts, limited liability companies, closed-end investment companies (companies that are required to report Acquired Fund Fees and Expenses, as defined by the SEC, including business development companies), blank check companies, special-purpose acquisition companies, and limited partnerships are also not eligible for inclusion in the Russell U.S. Indices. Exchange traded funds and mutual funds are also excluded. Bulletin board, pink-sheets and over-the-counter ("OTC") traded securities are not eligible for inclusion.

Annual reconstitution is a process by which the RTY is completely rebuilt. On the last trading day of May, all eligible securities are ranked by their total market capitalization. The largest 4,000 become the Russell 3000E Index, and the other of the index sponsor's indexes are determined from that set of securities. Reconstitution of the RTY occurs on the last Friday in June or, when the last Friday in June is the 29th or 30th, reconstitution occurs on the prior

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Friday. In addition, the index sponsor adds initial public offerings to the RTY on a quarterly basis based on total market capitalization guidelines ranking within the market-adjusted capitalization breaks established during the most recent reconstitution.

After membership is determined, a security's shares are adjusted to include only those shares available to the public. This is often referred to as "free float." The purpose of the adjustment is to exclude from market calculations the capitalization that is not available for purchase and is not part of the investable opportunity set.

Historical Information

The following table sets forth the quarterly high, low and period-end closing prices of the IWM, as reported by Bloomberg Financial Markets. The historical performance of the IWM should not be taken as an indication of its future performance. We cannot give you assurance that the performance of the IWM 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	\$75.12	\$64.30	\$68.51
4/1/2008	6/30/2008	\$76.17	\$68.47	\$69.03
7/1/2008	9/30/2008	\$75.20	\$65.50	\$68.39
10/1/2008	12/31/2008	\$67.02	\$38.58	\$49.27
1/1/2009	3/31/2009	\$51.27	\$34.36	\$41.94
4/1/2009	6/30/2009	\$53.19	\$42.82	\$50.96
7/1/2009	9/30/2009	\$62.02	\$47.87	\$60.23
10/1/2009	12/31/2009	\$63.36	\$56.22	\$62.26
1/1/2010	3/31/2010	\$69.25	\$58.68	\$67.81
4/1/2010	6/30/2010	\$74.14	\$61.08	\$61.08
7/1/2010	9/30/2010	\$67.67	\$59.04	\$67.47
10/1/2010	12/31/2010	\$79.22	\$66.94	\$78.23
1/1/2011	3/31/2011	\$84.17	\$77.18	\$84.17
4/1/2011	6/30/2011	\$86.37	\$77.77	\$82.80
7/1/2011	9/30/2011	\$85.65	\$64.25	\$64.25
10/1/2011	12/31/2011	\$76.45	\$60.97	\$73.69
1/1/2012	3/31/2012	\$84.41	\$74.56	\$82.85
4/1/2012	6/30/2012	\$83.79	\$73.64	\$79.65
7/1/2012	9/30/2012	\$86.40	\$76.68	\$83.46
10/1/2012	12/31/2012	\$84.69	\$76.88	\$84.29
1/1/2013	3/31/2013	\$94.80	\$86.65	\$94.26
4/1/2013	6/30/2013	\$99.51	\$89.58	\$97.16
7/1/2013	9/30/2013	\$107.10	\$98.08	\$106.62
10/1/2013	12/31/2013	\$115.31	\$103.67	\$115.31
1/1/2014	3/31/2014	\$119.83	\$108.64	\$116.34
4/1/2014	6/30/2014	\$118.81	\$108.88	\$118.81
7/1/2014	9/30/2014	\$120.02	\$109.35	\$109.35
10/1/2014	12/31/2014	\$121.08	\$104.30	\$119.67
1/1/2015	3/31/2015	\$126.03	\$114.69	\$124.35
4/1/2015	6/30/2015	\$129.01	\$120.85	\$124.86
7/1/2015	9/30/2015	\$126.31	\$107.53	\$109.20
10/1/2015	12/31/2015	\$119.85	\$109.01	\$112.51
1/1/2016	3/31/2016	\$110.62	\$94.80	\$110.62
4/1/2016	6/30/2016	\$118.43	\$108.69	\$114.97
7/1/2016	9/30/2016	\$125.70	\$113.69	\$124.21
10/1/2016	12/31/2016	\$138.31	\$115.00	\$134.85
1/1/2017	3/31/2017	\$140.36	\$133.75	\$137.48
4/1/2017	4/5/2017*	\$136.03	\$134.33	\$134.33

\* This free writing prospectus includes information for the second calendar quarter of 2017 for the period from April 1, 2017 through April 5, 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 second calendar quarter of 2017.

The graph below illustrates the performance of the IWM from January 1, 2008 to April 5, 2017.

**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.

#### iShares® MSCI EAFE ETF

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

#### The MSCI EAFE Index

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

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

#### iShares® MSCI Emerging Markets ETF

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

#### The MSCI Emerging Markets Index

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

The MSCI Emerging Markets Index is intended to measure equity market performance in the global emerging markets. The MSCI Emerging Markets Index is a free float-adjusted market capitalization index with a base date of December 31, 1987 and an initial value of 100. The MSCI Emerging Markets Index is calculated daily in U.S. dollars and published in real time every 60 seconds during market trading hours. The MSCI Emerging Markets Index currently consists of the following 23 emerging market country indices: Brazil, Chile, China, Colombia, Czech Republic, Greece, Egypt, Hungary, India, Indonesia, South Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates. The MSCI Emerging Markets 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

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

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

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

- defining the equity universe;
- 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, are eligible for inclusion in the equity universe. Conversely, mutual funds, ETFs, equity derivatives and most investment trusts are not eligible for inclusion in the equity universe.

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

Effective with the November 2015 semi-annual index review, companies traded outside of their country of classification (i.e., “foreign listed companies”) became eligible for inclusion in the MSCI Country Investable Market Indexes along with the applicable MSCI Global Index. In order for a MSCI Country Investable Market Index to be eligible to include foreign listed companies, it must meet the Foreign Listing Materiality Requirement. To meet the Foreign Listing Materiality Requirement, the aggregate market capitalization of all securities represented by foreign listings should represent at least (i) 5% of the free float-adjusted market capitalization of the relevant MSCI Country Investable Market Index and (ii) 0.05% of the free-float adjusted market capitalization of the MSCI ACWI Investable Market Index.

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

The investability screens used to determine the investable equity universe in each market are as follows:

Equity Universe Minimum Size Requirement: this investability screen is applied at the company level. In order to be included in a market investable equity universe, a company must have the required minimum full market capitalization.

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

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

#### Index Maintenance

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

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

- updating the indices on the basis of a fully refreshed equity universe;
- taking buffer rules into consideration for migration of securities across size and style segments; and
- updating FIFs and Number of Shares (“NOS”).

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

- including significant new eligible securities (such as IPOs that were not eligible for earlier inclusion) in the index;
- allowing for significant moves of companies within the Size Segment Indices, using wider buffers than in the SAIR;
- and
- reflecting the impact of significant market events on FIFs and updating NOS.

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

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

## 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	12/31/2008	\$55.88	\$35.71	\$44.87
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	12/31/2009	\$57.28	\$52.66	\$55.30
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	12/31/2010	\$59.46	\$54.25	\$58.23
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	12/31/2011	\$55.57	\$46.45	\$49.53
1/1/2012	3/31/2012	\$55.80	\$49.15	\$54.90
4/1/2012	6/30/2012	\$55.51	\$46.55	\$49.96
7/1/2012	9/30/2012	\$55.15	\$47.62	\$53.00
10/1/2012	12/31/2012	\$56.88	\$51.96	\$56.82
1/1/2013	3/31/2013	\$59.89	\$56.90	\$58.98
4/1/2013	6/30/2013	\$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	12/31/2016	\$59.20	\$56.20	\$57.73
1/1/2017	3/31/2017	\$62.60	\$58.09	\$62.29
4/1/2017	4/5/2017*	\$62.20	\$61.85	\$61.85

\* This free writing prospectus includes information for the second calendar quarter of 2017 for the period from April 1, 2017 through April 5, 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 second calendar quarter of 2017.

The graph below illustrates the performance of the EFA from January 1, 2008 to April 5, 2017.

**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.

## Historical Information

The following table sets forth the quarterly high, low and period-end closing prices of the EEM, as reported by Bloomberg Financial Markets. The historical performance of the EEM should not be taken as an indication of its future performance. We cannot give you assurance that the performance of the EEM 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	\$50.37	\$42.17	\$44.79
4/1/2008	6/30/2008	\$51.70	\$44.43	\$45.19
7/1/2008	9/30/2008	\$44.43	\$31.33	\$34.53
10/1/2008	12/31/2008	\$33.90	\$18.22	\$24.97
1/1/2009	3/31/2009	\$27.09	\$19.94	\$24.81
4/1/2009	6/30/2009	\$34.64	\$25.65	\$32.23
7/1/2009	9/30/2009	\$39.29	\$30.75	\$38.91
10/1/2009	12/31/2009	\$42.07	\$37.56	\$41.50
1/1/2010	3/31/2010	\$43.22	\$36.83	\$42.12
4/1/2010	6/30/2010	\$43.98	\$36.16	\$37.32
7/1/2010	9/30/2010	\$44.77	\$37.59	\$44.77
10/1/2010	12/31/2010	\$48.58	\$44.77	\$47.62
1/1/2011	3/31/2011	\$48.69	\$44.63	\$48.69
4/1/2011	6/30/2011	\$50.21	\$45.50	\$47.60
7/1/2011	9/30/2011	\$48.46	\$34.95	\$35.07
10/1/2011	12/31/2011	\$42.80	\$34.36	\$37.94
1/1/2012	3/31/2012	\$44.76	\$38.23	\$42.94
4/1/2012	6/30/2012	\$43.54	\$36.68	\$39.19
7/1/2012	9/30/2012	\$42.37	\$37.42	\$41.32
10/1/2012	12/31/2012	\$44.35	\$40.14	\$44.35
1/1/2013	3/31/2013	\$45.20	\$41.80	\$42.78
4/1/2013	6/30/2013	\$44.23	\$36.63	\$38.57
7/1/2013	9/30/2013	\$43.29	\$37.34	\$40.77
10/1/2013	12/31/2013	\$43.66	\$40.44	\$41.77
1/1/2014	3/31/2014	\$40.99	\$37.09	\$40.99
4/1/2014	6/30/2014	\$43.95	\$40.82	\$43.23
7/1/2014	9/30/2014	\$45.85	\$41.56	\$41.56
10/1/2014	12/31/2014	\$42.44	\$37.73	\$39.29
1/1/2015	3/31/2015	\$41.07	\$37.92	\$40.13
4/1/2015	6/30/2015	\$44.09	\$39.04	\$39.62
7/1/2015	9/30/2015	\$39.78	\$31.32	\$32.78
10/1/2015	12/31/2015	\$36.29	\$31.55	\$32.19
1/1/2016	3/31/2016	\$34.28	\$28.25	\$34.25
4/1/2016	6/30/2016	\$35.26	\$31.87	\$34.36
7/1/2016	9/30/2016	\$38.20	\$33.77	\$37.45
10/1/2016	12/31/2016	\$38.10	\$34.08	\$35.01
1/1/2017	3/31/2017	\$39.99	\$35.43	\$39.39
4/1/2017	4/5/2017*	\$39.63	\$39.51	\$39.51

\* This free writing prospectus includes information for the second calendar quarter of 2017 for the period from April 1, 2017 through April 5, 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 second calendar quarter of 2017.

The graph below illustrates the performance of the EEM from January 1, 2008 to April 5, 2017.

**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. We will agree that UBS may sell all or a part of the Securities that it will purchase from us to investors at the price to public listed on the cover hereof, or its affiliates at the price indicated on the cover of the pricing supplement, the document that will be filed under Rule 424(b)(2) containing the final pricing terms of the Securities.

UBS may allow a concession not in excess of the underwriting discount set forth on the cover of the pricing supplement to its affiliates for distribution of the Securities.

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-13 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 eight 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 the underwriting discount and 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 the underwriting discount and 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 each Index Fund, 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 the underwriting commission and 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.