ROYAL BANK OF CANADA
Form FWP
January 04, 2018

ISSUER FREE WRITING PROSPECTUS
Filed Pursuant to Rule 433
Registration Statement No. 333-208507
Dated January 4, 2018
Royal Bank of Canada Trigger Autocallable Contingent Yield Notes
$ Notes Linked to the Least Performing Underlying Between the iShares® Russell 2000 ETF and the SPDR® EURO STOXX 50® ETF due on or about January 7, 2021

Investment Description

Trigger Autocallable Contingent Yield Notes (the "Notes") are unsecured and unsubordinated debt securities issued by Royal Bank of Canada linked to the performance of the least performing of the iShares® Russell 2000 ETF and the SPDR® EURO STOXX 50® ETF (each, an "Underlying," and, together, the "Underlyings"). We will pay a quarterly Contingent Coupon payment if the closing prices of both Underlyings on the applicable Coupon Observation Date are equal to or greater than their respective Coupon Barriers. Otherwise, no coupon will be paid for that quarter. We will automatically call the Notes early if the closing prices of both Underlyings on any quarterly Call Observation Date (beginning after six months) are equal to or greater than their respective Initial Prices. If the Notes are called, we will pay you the principal amount of your Notes plus the Contingent Coupon for the applicable quarter, and no further amounts will be owed to you under the Notes. If the Notes are not called prior to maturity and the Final Prices of both Underlyings are equal to or greater than their respective Downside Thresholds (which are the same prices as their respective Coupon Barriers), we will pay you a cash payment at maturity equal to the principal amount of your Notes plus the Contingent Coupon for the final quarter. However, if the Final Price of the Underlying with the lowest percentage change from its Initial Price (the "Least Performing Underlying") is less than its Downside Threshold, we will pay you less than the full principal amount, if anything, resulting in a loss on your initial investment that is proportionate to the negative performance of the Least Performing Underlying over the term of the Notes, and you may lose up to 100% of your initial investment.

Investing in the Notes involves significant risks. You will not receive a coupon for any Coupon Observation Date on which either Underlying closes below its Coupon Barrier. The Notes will not be automatically called if either Underlying closes below its Initial Price on a quarterly Call Observation Date. You may lose some or all of your principal amount if the Least Performing Underlying closes below its Downside Threshold, regardless of the performance of the other Underlying. The contingent repayment of principal only applies if you hold the Notes until maturity. Generally, the higher the Contingent Coupon Rate on a security, the greater the risk of loss. Any payment on the Notes, 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 Notes and you could lose your entire investment. The Notes will not be listed on any securities exchange.

Features Key Dates[1]

Contingent Coupon — We will pay a quarterly Contingent Coupon payment if the closing prices of both Underlyings on the applicable Coupon Observation Date are equal to or greater than their respective Coupon Barriers. Otherwise, no coupon will be paid for the quarter.

Automatically Callable — We will automatically call the Notes and pay you the principal amount of your Notes plus the Contingent Coupon otherwise due for the applicable quarter if the closing prices of both Underlyings on any quarterly Call Observation Date (beginning after six months) are greater than or equal to their respective Initial Prices. If the Notes are not called, investors will have the potential for downside equity market risk at maturity.

Contingent Repayment of Principal at Maturity — If by maturity the Notes have not been called and the price of each Underlying does not close below its Downside Threshold on the Final Valuation Date, we will repay your principal amount per Note at maturity. However, if the price of the Least Performing Underlying is less than its Downside Threshold on the Final Valuation Date, we will pay less than the principal amount, if anything, resulting in a loss on your initial investment that is proportionate to the decline in the price of the Least Performing Underlying from the

trade date to the Final Valuation Date. The contingent repayment of principal only applies if you hold the Notes until maturity. Any payment on the Notes, including any repayment of principal, is subject to our creditworthiness.

Trade Date[1]	January 4, 2018
Settlement Date[1]	January 9, 2018
Coupon Observation Dates[2]	Quarterly (see page 6)
Call Observation Dates[2]	Quarterly (callable after six months) (see page 6)
Final Valuation Date[2]	January 4, 2021
Maturity Date[2]	January 7, 2021

[1] Expected. In the event that we make any change to the expected trade date and settlement date, the Coupon Observation Dates, the Call Observation Dates, the Final Valuation Date and/or the maturity date will be changed so that the stated term of the Notes remains approximately the same.

[2] Subject to postponement if a market disruption event occurs as described under "General Terms of the Securities — Payment at Maturity" in the accompanying product prospectus supplement no. UBS-TPAOS-2.

NOTICE TO INVESTORS: THE NOTES ARE SIGNIFICANTLY RISKIER THAN CONVENTIONAL DEBT INSTRUMENTS. THE ISSUER IS NOT NECESSARILY OBLIGATED TO REPAY THE FULL PRINCIPAL AMOUNT OF THE NOTES AT MATURITY, AND THE NOTES CAN HAVE DOWNSIDE MARKET RISK SIMILAR TO THE LEAST PERFORMING UNDERLYING. THIS MARKET RISK IS IN ADDITION TO THE CREDIT RISK INHERENT IN PURCHASING A DEBT OBLIGATION OF ROYAL BANK OF CANADA. YOU SHOULD NOT PURCHASE THE NOTES IF YOU DO NOT UNDERSTAND OR ARE NOT COMFORTABLE WITH THE SIGNIFICANT RISKS INVOLVED IN INVESTING IN THE NOTES.

YOU SHOULD CAREFULLY CONSIDER THE RISKS DESCRIBED UNDER ''KEY RISKS'' BEGINNING ON PAGE 7, THE RISKS DESCRIBED UNDER "RISK FACTORS" BEGINNING ON PAGE PS-5 OF THE PRODUCT PROSPECTUS SUPPLEMENT NO. UBS-TPAOS-2 AND UNDER ''RISK FACTORS'' BEGINNING ON PAGE S-1 OF THE PROSPECTUS SUPPLEMENT BEFORE PURCHASING ANY NOTES. EVENTS RELATING TO ANY OF THOSE RISKS, OR OTHER RISKS AND UNCERTAINTIES, COULD ADVERSELY AFFECT THE MARKET VALUE OF, AND THE RETURN ON, YOUR NOTES. YOU MAY LOSE SOME OR ALL OF YOUR INITIAL INVESTMENT IN THE NOTES.

Note Offering

This free writing prospectus relates to Trigger Autocallable Contingent Yield Notes we are offering linked to the least performing Underlying between the iShares® Russell 2000 ETF and the SPDR® EURO STOXX 50® ETF. The Initial Prices, the Downside Thresholds and the Coupon Barriers for the Notes will be determined on the trade date. The Notes will be issued in minimum denominations of $10.00, and integral multiples of $10.00 in excess thereof, with a minimum investment of $1,000.00.

Underlyings (Least Performing of)	Tickers	Contingent Coupon Rate	Initial Prices	Downside Thresholds	Coupon Barriers	CUSIP	ISIN
iShares® Russell 2000 ETF (IWM)	IWM	7.10% per annum		70% of its Initial Price	70% of its Initial Price	78013Q210	US78013Q2104
SPDR® EURO STOXX 50® ETF (FEZ)	FEZ			70% of its Initial Price	70% of its Initial Price		

See "Additional Information About Royal Bank of Canada and the Notes" in this free writing prospectus. The Notes will have the terms specified in the prospectus dated January 8, 2016, the prospectus supplement dated January 8, 2016, product prospectus supplement no. UBS-TPAOS-2 dated January 20, 2016 and this free writing prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the Notes 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-TPAOS-2. Any representation to the contrary is a criminal offense.

	Price to Public		Fees and Commissions[(1)]		Proceeds to Us	
Offering of the Notes	Total	Per Note	Total	Per Note	Total	Per

			Security
Notes linked to the Least Performing Underlying Between the iShares® Russell 2000 ETF and the SPDR® EURO STOXX 50® ETF	$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 Notes. See "Supplemental Plan of Distribution (Conflicts of Interest)" below.

The initial estimated value of the Notes as of the date of this document is $9.6862 per $10 in principal amount, which is less than the price to public. The pricing supplement relating to the Notes will set forth our updated estimate of the initial value of the Notes as of the trade date, which will not be more than $0.20 less than this amount. The actual value of the Notes at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount. We describe our determination of the initial estimated value under "Key Risks" beginning on page 7, "Supplemental Plan of Distribution (Conflicts of Interest)" and "Structuring the Notes" below.

The Notes 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 Notes

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. 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-TPAOS-2 and this free writing prospectus if you so request by calling toll-free 1-877-688-2301.

You may revoke your offer to purchase the Notes 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 Notes prior to their issuance. In the event of any changes to the terms of the Notes, 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 Series G medium-term notes of which these Notes are a part, and the more detailed information contained in product prospectus supplement no. UBS-TPAOS-2 dated January 20, 2016. This free writing prospectus, together with the documents listed below, contains the terms of the Notes 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-TPAOS-2, as the Notes 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-TPAOS-2, the prospectus supplement, or the prospectus, the terms discussed herein will control. Please note in particular that several defined terms in the product prospectus supplement are replaced in this document with different terms:

- instead of "Starting Price" in the product prospectus supplement, the term "Initial Price" is used in this document;
- instead of "Ending Price" in the product prospectus supplement, the term "Final Price" is used in this document;
- instead of "Trigger Price" in the product prospectus supplement, the term "Downside Threshold" is used in this document;
- instead of "Underlying Equity" in the product prospectus supplement, the terms "Underlying" and "Underlyings" are used in this document; and
- instead of "final Observation Date" in the product prospectus supplement, the term "Final Valuation Date" is used in this document.

You may access these on the SEC website at 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-TPAOS-2 dated January 20, 2016:
  https://www.sec.gov/Archives/edgar/data/1000275/000114036116048191/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 Notes may be suitable for you if, among other considerations:

- You fully understand the risks inherent in an investment in the Notes, including the risk of loss of your entire initial investment.
- You can tolerate a loss of all or a substantial portion of your investment and are willing to make an investment that may have the same downside market risk as an investment in the securities composing the Least Performing Underlying.
- You believe the closing prices of both Underlyings will be equal to or greater than their respective Coupon Barriers on most or all of the Coupon Observation Dates (including the Final Valuation Date).
- You are willing to make an investment whose return is limited to the applicable Contingent Coupon payments, regardless of any potential appreciation of the Underlyings, which could be significant.
- You do not seek guaranteed current income from this investment and are willing to forgo the dividends paid on the equity securities held by the Underlyings.
- You can tolerate fluctuations in the price of the Notes prior to maturity that may be similar to or exceed the downside price fluctuations of the Underlyings.
- You are willing to invest in Notes for which there may be little or no secondary market and you accept that the secondary market will depend in large part on the price, if any, at which RBC Capital Markets, LLC, which we refer to as "RBCCM," is willing to purchase the Notes.
- You are willing to invest in the Notes based on the Contingent Coupon Rate indicated on the cover page of this free writing prospectus.
- You are willing to accept individual exposure to each Underlying and that the performance of the Least Performing Underlying will not be offset or mitigated by the performance of the other Underlying.
- You understand and accept the risks associated with the Underlyings.
- You are willing to invest in securities that may be called early and you are otherwise willing to hold such securities to maturity.
- You are willing to assume our credit risk for all payments under the Notes, and understand that if we default on our obligations, you may not receive any amounts due to you, including any repayment of principal.

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

- You do not fully understand the risks inherent in an investment in the Notes, including the risk of loss of your entire initial investment.
- You cannot tolerate a loss on your investment and require an investment designed to provide a full return of principal at maturity.
- You are not willing to make an investment that may have the same downside market risk as an investment in the Least Performing Underlying.
- You believe that the price of either Underlying will decline during the term of the Notes and is likely to close below its Coupon Barrier on most or all of the Coupon Observation Dates and below its Downside Threshold on the Final Valuation Date.
- You seek an investment that participates in the full appreciation in the prices of the Underlyings or that has unlimited return potential.
- You cannot tolerate fluctuations in the price of the Notes prior to maturity that may be similar to or exceed the downside price fluctuations of the Least Performing Underlying.
- You are unwilling to invest in the Notes based on the Contingent Coupon Rate indicated on the cover page of this free writing prospectus.
- You do not understand or accept the risks associated with the Underlyings.
- You are unwilling to accept individual exposure to each Underlying and that the performance of the Least Performing Underlying will not be offset or mitigated by the performance of the other Underlying.
- You seek guaranteed current income from this investment or prefer to receive the dividends paid on the Underlyings.
- You are unable or unwilling to hold securities that may be called early, or you are otherwise unable or unwilling to hold such securities to maturity or you seek an investment for which there will be an active secondary market for the Notes.

¨You are not willing to assume our credit risk for all payments under the Notes, including any repayment of principal.

The suitability considerations identified above are not exhaustive. Whether or not the Notes 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 Notes in light of your particular circumstances. You should also review carefully the "Key Risks" below and "Risk Factors" in the accompanying product prospectus supplement no. UBS-TPAOS-2 for risks related to an investment in the Notes. In addition, you should review carefully "Information About the Underlyings" below for more information about the Underlyings.

Indicative Terms of the Notes[1]

Issuer:	Royal Bank of Canada
Principal Amount per Note:	$10 per Note
Term:[2]	Approximately three years, if not previously called
Underlying:	The iShares® Russell 2000 ETF ("IWM") and the SPDR® EURO STOXX 50® ETF ("FEZ") (each, an "Underlying")
Closing Price:	With respect to each Underlying, on any trading day, the last reported sale price on the principal national securities exchange in the U.S. on which it is listed for trading, as determined by the calculation agent.
Initial Price:	With respect to each Underlying, its closing price on the trade date.
Final Price:	With respect to each Underlying, its closing price on the Final Valuation Date.
Contingent Coupon:	If the closing prices of both Underlyings are equal to or greater than their respective Coupon Barriers on any Coupon Observation Date, we will pay you the Contingent Coupon applicable to that Coupon Observation Date. If the closing price of either Underlying is less than its Coupon Barrier on any Coupon Observation Date, the Contingent Coupon applicable to that Coupon Observation Date will not accrue or be payable, and we will not make any payment to you on the relevant Contingent Coupon Payment Date. The Contingent Coupon will be a fixed amount based upon equal quarterly installments at the Contingent Coupon Rate, which is a per annum rate as set forth below.

Contingent Coupon payments on the Notes are not guaranteed. We will not pay you the Contingent Coupon for any Coupon Observation Date on which the closing price of either Underlying is less than its Coupon Barrier.

Contingent Coupon Rate:	7.10% per annum (1.775% per quarter)
Coupon Barrier:	With respect to each Underlying, 70% of its Initial Price (as may be adjusted in the case of certain adjustment events as described under "General Terms of the Securities — Anti-dilution Adjustments" in the product prospectus supplement). The Coupon Barrier equals the Downside Threshold.
Downside Threshold:	With respect to each Underlying, 70% of its Initial Price (as may be adjusted in the case of certain adjustment events as described under "General Terms of the Securities — Anti-dilution Adjustments" in the product prospectus supplement). The Downside Threshold equals the Coupon Barrier.
Automatic Call Feature:	The Notes will be called automatically if the closing prices of both Underlyings on any Call Observation Date (beginning after six months and set forth on page 6) are greater than or equal to their respective Initial Prices.

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[1] Terms used in this free writing prospectus, but not defined herein, shall have the meanings ascribed to them in the product prospectus supplement.

[2] 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 Notes remains approximately the same.

Payment at Maturity:	If the Notes are called, we will pay you on the corresponding coupon payment date (which will be the "Call Settlement Date") a cash payment per Note equal to the principal amount per Note plus the applicable Contingent Coupon payment otherwise due on that day (the "Call Settlement Amount"). No further amounts will be owed to you under the Notes. If the Notes are not called and the Final Prices of both Underlyings are equal to or greater than their respective Downside Thresholds and the Coupon Barriers, we will pay you a cash payment per Note on the maturity date equal to $10 plus the Contingent Coupon otherwise due on the maturity date.

	If the Notes are not called and the Final Price of the Least Performing Underlying is less than its Downside Threshold, we will pay you a cash payment on the maturity date of less than the principal amount, if anything, resulting in a loss on your initial investment that is proportionate to the negative Underlying Return of the Least Performing Underlying, equal to: $10.00 + ($10.00 × Underlying Return of the Least Performing Underlying)
Least Performing Underlying:	The Underlying with the lowest Underlying Return.
Underlying Return:	With respect to each Underlying, Final Price – Initial Price Initial Price

Investment Timeline

Trade Date	The Initial Price, Downside Threshold and Coupon Barrier of each Underlying are determined.
Quarterly (beginning after six months):	If the closing prices of both Underlyings are equal to or greater than their respective Coupon Barriers on any Coupon Observation Date, we will pay you a Contingent Coupon payment on the applicable coupon payment date. The Notes will be called if the closing prices of both Underlyings on any Call Observation Date (beginning after six months) is equal to or greater than their respective Initial Prices. If the Notes are called, we will pay you a cash payment per Note equal to $10 plus the Contingent Coupon otherwise due on that date.
Maturity Date:	The Final Price of each Underlying is observed on the Final Valuation Date. If the Notes have not been called and the Final Prices of both Underlyings are equal to or greater than their respective Downside Thresholds (and their respective Coupon Barriers), we will repay the principal amount equal to $10 per Note plus the Contingent Coupon otherwise due on the maturity date. If the Notes have not been called and the Final Price of the Least Performing Underlying is less than its Downside Threshold, we will pay less than the principal amount, if anything, resulting in a loss on your initial investment proportionate to the decline of the Least Performing Underlying, for an amount equal to: $10 + ($10 × Underlying Return of the Least Performing Underlying) per Note

INVESTING IN THE NOTES INVOLVES SIGNIFICANT RISKS. YOU MAY LOSE SOME OR ALL OF YOUR PRINCIPAL AMOUNT. YOU WILL BE EXPOSED TO THE MARKET RISK OF EACH UNDERLYING ON EACH COUPON OBSERVATION DATE AND ON THE FINAL VALUATION DATE, AND ANY DECLINE IN THE PRICE OF ONE UNDERLYING MAY NEGATIVELY AFFECT YOUR RETURN AND WILL NOT BE OFFSET OR MITIGATED BY A LESSER DECLINE OR ANY POTENTIAL INCREASE IN THE PRICE OF THE OTHER UNDERLYING. ANY PAYMENT ON THE NOTES, 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 NOTES AND YOU COULD LOSE YOUR ENTIRE INVESTMENT.

Coupon Observation Dates and Coupon Payment Dates*

Coupon Observation Dates	Coupon Payment Dates
April 4, 2018	April 6, 2018
July 5, 2018(1)	July 9, 2018(2)
October 4, 2018(1)	October 9, 2018(2)
January 4, 2019(1)	January 8, 2019(2)
April 4, 2019(1)	April 8, 2019(2)
July 5, 2019(1)	July 9, 2019(2)
October 4, 2019(1)	October 8, 2019(2)
January 6, 2020(1)	January 8, 2020(2)
April 6, 2020(1)	April 8, 2020(2)
July 6, 2020(1)	July 8, 2020(2)
October 5, 2020(1)	October 7, 2020(2)
January 4, 2021(3)	January 7, 2021(4)

(1) These Coupon Observation Dates are also Call Observation Dates.
(2) These Coupon Payment Dates are also Call Settlement Dates.
(3) This is also the Final Valuation Date.
(4) This is also the maturity date.
* Expected. Subject to postponement if a market disruption event occurs, as described under “General Terms of the Securities — Payment at Maturity” in the accompanying product prospectus supplement no. UBS-TPAOS-2.

Key Risks

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the Underlyings or the securities held by the Underlyings. These risks are explained in more detail in the "Risk Factors" section of the accompanying product prospectus supplement no. UBS-TPAOS-2. We also urge you to consult your investment, legal, tax, accounting and other advisors before investing in the Notes.

Risks Relating to the Notes Generally

- Risk of Loss at Maturity — The Notes differ from ordinary debt securities in that we will not necessarily repay the full principal amount of the Notes at maturity. If the Notes are not called, we will repay you the principal amount of your Notes in cash only if the Final Price of each Underlying is greater than or equal to its Downside Threshold, and we will only make that payment at maturity. If the Notes are not called and the Final Price of the Least Performing Underlying is less than its Downside Threshold, you will lose some or all of your initial investment in an amount proportionate to the decline in the price of the Least Performing Underlying.
- The Contingent Repayment of Principal Applies Only at Maturity — If the Notes are not automatically called, you should be willing to hold your Notes to maturity. If you are able to sell your Notes prior to maturity in the secondary market, if any, you may have to do so at a loss relative to your initial investment, even if the prices of both Underlyings are above their respective Downside Thresholds.
- You May Not Receive any Contingent Coupons — Royal Bank of Canada will not necessarily make periodic Contingent Coupon payments on the Notes. If the closing prices of both Underlyings on a Coupon Observation Date are less than their respective Coupon Barriers, we will not pay you the Contingent Coupon applicable to that Coupon Observation Date. If the closing prices of both Underlyings are less than their respective Coupon Barriers on each of the Coupon Observation Dates, we will not pay you any Contingent Coupons during the term of, and you will not receive a positive return on, your Notes. Generally, this non-payment of the Contingent Coupon coincides with a period of greater risk of principal loss on your Notes. Accordingly, if we do not pay the Contingent Coupon on the maturity date, you will incur a loss of principal, because the Final Price of the Least Performing Underlying will be less than its Downside Threshold.
- The Call Feature and the Contingent Coupon Feature Limit Your Potential Return — The return potential of the Notes is limited to the pre-specified Contingent Coupon Rate, regardless of the appreciation of the Underlyings. In addition, the total return on the Notes will vary based on the number of Coupon Observation Dates on which the Contingent Coupon becomes payable prior to maturity or an automatic call. Further, if the Notes are called due to the automatic call feature, you will not receive any Contingent Coupons or any other payment in respect of any Coupon Observation Dates after the applicable Call Settlement Date. Since the Notes could be called as early as the first Call Observation Date, the total return on the Notes could be limited to six months. If the Notes are not called, you may be subject to the full downside performance of the Least Performing Underlying, even though your potential return is limited to the Contingent Coupon Rate. Generally, the longer the Notes are outstanding, the less likely it is that they will be automatically called due to the decline in the prices of the Underlyings and the shorter time remaining for the prices of the Underlyings to recover. As a result, the return on an investment in the Notes could be less than the return on a direct investment in the Underlyings or on a similar security that allows you to participate in the appreciation of the prices of the Underlyings.
- The Contingent Coupon Rate Per Annum Payable on the Notes Will Reflect in Part the Volatility of the Underlyings, and May Not Be Sufficient to Compensate You for the Risk of Loss at Maturity — "Volatility" refers to the frequency and magnitude of changes in the prices of the Underlyings. The greater the volatility of the Underlyings, the more likely it is that the price of either Underlying could close below its Downside Threshold on the Final Valuation Date. This risk will generally be reflected in a higher Contingent Coupon Rate for the Notes than the rate payable on our conventional debt securities with a comparable term. However, while the Contingent Coupon Rate will be set on the trade date, the Underlyings' volatility can change significantly over the term of the Notes, and may increase. The prices of one or both of the Underlyings could fall sharply as of the Final Valuation Date, which could result in a significant loss of your principal.
- Reinvestment Risk — The Notes will be called automatically if the closing prices of both Underlyings are equal to or greater than their respective Initial Prices on any Call Observation Date. In the event that the Notes are called prior to maturity, there is no guarantee that you will be able to reinvest the proceeds from an investment in the Notes at a

comparable rate of return for a similar level of risk. To the extent you are able to reinvest your proceeds in an investment comparable to the Notes, you will incur transaction costs and the original issue price for such an investment is likely to include certain built in costs such as dealer discounts and hedging costs.

- The Notes Are Subject to Our Credit Risk — The Notes are subject to our credit risk, and our credit ratings and credit spreads may adversely affect the market value of the Notes. Investors are dependent on our ability to pay all amounts due on the Notes, and therefore investors are subject to our credit risk and to changes in the market's view of our creditworthiness. Any decline in our credit ratings or increase in the credit spreads charged by the market for taking our credit risk is likely to adversely affect the value of the Notes. If we were to default on our payment obligations, you may not receive any amounts owed to you under the Notes and you could lose your entire investment.
- The Initial Estimated Value of the Notes Will Be Less than the Price to the Public — The initial estimated value for the Notes that is set forth on the cover page of this document, and that will be set forth in the final pricing supplement for the Notes, will be less than the public offering price you pay for the Notes and does not represent a minimum price at which we, RBCCM or any of our other affiliates would be willing to purchase the Notes in any secondary market (if any exists) at any time. If you attempt to sell the Notes prior to maturity, their market value may be lower than the price you paid for them and the initial estimated value. This is due to, among other things, changes in the prices of the Underlyings, 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 Notes. These factors, together with various credit, market and economic factors over the term of the Notes, are expected to reduce the price at which you may be able to sell the Notes in any secondary market and will affect the value of the Notes in complex and unpredictable ways. Assuming no change in market conditions or any other relevant factors, the price, if any, at which you may be able to sell your Notes prior to maturity may be less than 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 Notes. In addition, any price at which you may sell the Notes is likely to reflect customary bid-ask spreads for similar trades. In addition to bid-ask spreads, the value of the Notes determined for any secondary market price is expected to be based on a secondary market rate rather than the internal borrowing rate used to price the Notes 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 Notes are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Notes to maturity.
- Our Initial Estimated Value of the Notes Is an Estimate Only, Calculated as of the Time the Terms of the Notes Are Set — The initial estimated value of the Notes is based on the value of our obligation to make the payments on the Notes, together with the mid-market value of the derivative embedded in the terms of the Notes. See "Structuring the Notes" below. Our estimate 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 Notes. These assumptions are based on certain forecasts about future events, which may prove to be incorrect. Other entities may value the Notes or similar securities at a price that is significantly different than we do.

The value of the Notes at any time after the trade date will vary based on many factors, including changes in market conditions, and cannot be predicted with accuracy. As a result, the actual value you would receive if you sold the Notes in any secondary market, if any, should be expected to differ materially from the initial estimated value of your Notes and the amount that may be paid at maturity.

- Owning the Notes Is Not the Same as Owning an Underlying or the Stocks Comprising an Underlying's Underlying Index — The return on your Notes may not reflect the return you would realize if you actually owned an Underlying or stocks included in an Underlying's underlying index. As a holder of the Notes, you will not have voting rights or rights to receive dividends or other distributions or other rights that holders of an Underlying or these stocks would have, and any such dividends will not be incorporated in the determination of the Underlying Return for either Underlying.
- You Will Not Have Any Shareholder Rights and Will Have No Right to Receive Any Shares of the Underlyings at Maturity — Investing in the Notes will not make you a holder of any shares of the Underlyings or any securities held by the Underlyings. Neither you nor any other holder or owner of the Notes will have any voting rights, any right to receive dividends or other distributions, or any other rights with respect to the Underlyings or such other securities.
- Changes That Affect the Underlying Indices Will Affect the Market Value of the Notes and the Amount You Will Receive at Maturity — The policies of the index sponsors concerning the calculation of the underlying indices, additions, deletions or substitutions of the components of the underlying indices and the manner in which changes affecting those components, such as stock dividends, reorganizations or mergers, may be reflected in the underlying indices and, therefore, could affect the share prices of the Underlyings, the amount payable on the Notes, and the market value of the Notes prior to maturity. The amount payable on the Notes and their market value could also be affected if an index sponsor changes these policies, for example, by changing the manner in which it calculates the applicable underlying index, or if an index sponsor discontinues or suspends the calculation or publication of the applicable underlying index.
- We Have No Affiliation with Any Index Sponsor and Will Not Be Responsible for Its Actions — The index sponsors are not affiliates of ours and will not be involved in the offering of the Notes in any way. Consequently, we have no control over the actions of the index sponsors, including any actions of the type that would require the calculation agent to adjust the payment to you at maturity. The index sponsors have no obligation of any sort with respect to the Notes. Thus, the index sponsors have no obligation to take your interests into consideration for any reason, including in taking any actions that might affect the value of the Notes. None of our proceeds from the issuance of the Notes will be delivered to the index sponsors.
- Adjustments to an Underlying Could Adversely Affect the Notes — Blackrock, Inc. ("Blackrock"), in its role as the sponsor of the Underlyings, is responsible for calculating and maintaining the Underlyings. Blackrock can add, delete or substitute the stocks comprising the Underlyings or make other methodological changes that could change the share prices of the Underlyings at any time. If one or more of these events occurs, the calculation of the amount payable at maturity may be adjusted to reflect such event or events. Consequently, any of these actions could adversely affect the amounts payable on the Notes and/or the market value of the Notes.
- We and Our Affiliates Do Not Have Any Affiliation With the Investment Advisor of the Underlyings and Are Not Responsible for Its Public Disclosure of Information — We and our affiliates are not affiliated with Blackrock in any way and have no ability to control or predict its actions, including any errors in or discontinuance of disclosure regarding its methods or policies relating to the Underlyings. Blackrock is not involved in the offering of the Notes in any way and has no obligation to consider your interests as an owner of the Notes in taking any actions relating to the Underlyings that might affect the value of the Notes. Neither we nor any of our affiliates has independently verified the adequacy or accuracy of the information about Blackrock or the Underlyings contained in any public disclosure of information. You, as an investor in the Notes, should make your own investigation into the Underlyings.
- The Correlation Between the Performance of Each Underlying and the Performance of its Respective Underlying Index May Be Imperfect — The performance of an Underlying is linked principally to the performance of its underlying index. However, because of the potential discrepancies identified in more detail in the product prospectus supplement, the return on each Underlying may correlate imperfectly with the return on its underlying index. Further,

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

¨ Historical Prices of any Underlying Should Not Be Taken as an Indication of its Future Price During the Term of the Notes — The trading prices of the Underlyings will determine the value of the Notes at any given time. As it is impossible to predict whether the price of any Underlying will rise or fall, and trading prices of the common stocks held by the Underlyings will be influenced by complex and interrelated political, economic, financial and other factors that can affect the issuers of those stocks, and therefore, the value of the Underlyings.

¨ Management Risk — The Underlyings 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 Underlyings, 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 Underlyings generally would not sell a security because the security’s issuer was in financial trouble. In addition, the Underlyings are subject to the risk that the investment strategy of their respective investment advisors may not produce the intended results.

¨ Your Return on the Notes Is Not Linked to a Basket Consisting of the Underlyings. Rather, It Will Be Contingent Upon the Performance of Each Individual Underlying. Unlike an instrument with a return linked to a basket of Underlyings or other underlying assets, in which risk is mitigated and diversified among all of the components of the basket, you will be exposed equally to the risks related to both of the Underlyings. Poor performance by either one of the Underlyings over the term of the Notes may negatively affect your return and will not

be offset or mitigated by a positive performance by the other Underlying. For the Notes to be automatically called or to receive any Contingent Coupon payment or contingent repayment of principal at maturity from us, both Underlyings must close above their Initial Prices, Coupon Barriers and Downside Thresholds, respectively, on the applicable Coupon Observation Date. In addition, if not called prior to maturity, you may incur a loss proportionate to the negative return of the Least Performing Underlying. Accordingly, your investment is subject to the market risk of each Underlying, which results in a higher risk of your not receiving Contingent Coupon payments and incurring a loss at maturity.

- Because the Notes Are Linked to the Individual Performance of More than One Underlying, It Is More Likely that One of the Underlyings Will Decrease in Value Below its Coupon Barrier and its Downside Threshold, Increasing the Probability That You Will Not Receive the Contingent Coupons and that You Will Lose Some or All of Your Initial Investment. The risk that you will not receive the Contingent Coupons and that you will lose some or all of your initial investment in the Notes is greater if you invest in the Notes as opposed to securities that are linked to the performance of a single Underlying if their terms are otherwise substantially similar. With a greater total number of Underlyings, it is more likely that an Underlying will be below its Coupon Barrier or Downside Threshold on a Coupon Observation Date or the Final Valuation Date, and therefore it is more likely that you will not receive the Contingent Coupons and that at maturity you will receive an amount in cash which is worth less than your principal amount. In addition, the performances of a pair of Underlyings may be positively or negatively correlated, or may not be correlated at all. If the Underlyings are not correlated to each other or are negatively correlated, there is a greater potential for one of those Underlyings to close below its Coupon Barrier or Downside Threshold or on the Final Valuation Date, respectively, and therefore the risk of missing a Contingent Coupon payment and that you will lose a portion of your principal at maturity.

It is impossible to predict what the correlations between the Underlyings will be over the term of the Notes. The Underlyings represent different equity markets and these different equity markets may not perform similarly over the term of the Notes. Although the correlation of the Underlyings' performance may change over the term of the Notes, the Contingent Coupon Rate is determined, in part, based on the Underlyings' performance calculated using our internal models at the time when the terms of the Notes are determined. As stated earlier, a higher Contingent Coupon Rate is generally associated with lower correlation of the Underlyings, which reflects a greater potential for missed Contingent Coupons and for a loss on your investment at maturity. See “Correlation of the Underlyings” below.

- Risks Associated with Foreign Securities Markets — Because foreign companies or foreign equity securities held by the FEZ are publicly traded in the applicable foreign countries and trade in currencies other than U.S. dollars, investments in the Notes 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.

- An Investment in Notes Linked to IWM Is Subject to Risks Associated in an Investment in Stocks with a Small Market Capitalization— The IWM is linked to 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 often 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 often 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.

- Exchange Rate Risk — The share price of the FEZ will fluctuate based in large part upon its net asset value, which will in turn depend in part upon changes in the value of the euro, the currency in which the stocks held by the FEZ are traded. Accordingly, investors in the Notes will be exposed to currency exchange rate risk with respect to each of the euro and the U.S. dollar. An investor's net exposure will depend on the extent to which the euro strengthens or weakens against the U.S. dollar. If the dollar strengthens against the euro, the net asset value of the FEZ will be adversely affected and the price of the FEZ, and consequently, the market value of the Notes may decrease.
- No Assurance that the Investment View Implicit in the Notes Will Be Successful — It is impossible to predict whether and the extent to which the prices of the Underlyings will rise or fall. The closing prices of the Underlyings will be influenced by complex and interrelated political, economic, financial and other factors that affect the Underlyings. You should be willing to accept the downside risks of owning equities in general and the Underlyings in particular, and the risk of losing some or all of your initial investment.
- Lack of Liquidity — The Notes will not be listed on any securities exchange. RBCCM intends to offer to purchase the Notes 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 Notes easily. Because other dealers are not likely to make a secondary market for the Notes, the price at which you may be able to trade your Notes is likely to depend on the price, if any, at which RBCCM is willing to buy the Notes.
- Potential Conflicts — We and our affiliates play a variety of roles in connection with the issuance of the Notes, including hedging our obligations under the Notes. 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 Notes.
- Potentially Inconsistent Research, Opinions or Recommendations by RBCCM, UBS or Their Affiliates — RBCCM, UBS or their affiliates may publish research, express opinions or provide recommendations as to the Underlyings that are inconsistent with investing in or holding the

Notes, and which may be revised at any time. Any such research, opinions or recommendations could affect the value of the Underlyings, and therefore the market value of the Notes.

- Uncertain Tax Treatment — Significant aspects of the tax treatment of an investment in the Notes are uncertain. You should consult your tax adviser about your tax situation.
- Potential Royal Bank of Canada and UBS Impact on Price — Trading or transactions by Royal Bank of Canada, UBS or our respective affiliates in one or both of the Underlyings or the securities included in an Underlying's underlying index, or in futures, options, exchange-traded funds or other derivative products on the Underlyings or those securities may adversely affect the market value of the Underlyings or the closing prices of the Underlyings, and, therefore, the market value of the Notes.
- The Terms of the Notes 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 Notes 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 Notes, including a combination of a bond with one or more options or other derivative instruments. For the market value of the Notes, we expect that, generally, the price of the Underlyings on any day will affect the value of the Notes more than any other single factor. However, you should not expect the value of the Notes in the secondary market to vary in proportion to changes in the prices of the Underlyings. The value of the Notes will be affected by a number of economic and market factors that may either offset or magnify each other, including:
  - the price of each Underlying;
  - the actual and expected volatility of the price of each Underlying;
  - the time remaining to maturity of the Notes;
  - the dividend rates on the securities held by the Underlyings;
  - interest and yield rates in the market generally;
  - a variety of economic, financial, political, regulatory or judicial events;
  - the occurrence of certain events with respect to the Underlyings that may or may not require an adjustment to the terms of the Notes; and
  - our creditworthiness, including actual or anticipated downgrades in our credit ratings.

Some or all of these factors will influence the terms of the Notes at issuance as well as the price you will receive if you choose to sell the Notes prior to maturity. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You may have to sell the Notes at a substantial discount from the principal amount if, for example, the price of one or both of the Underlyings is at, or not sufficiently above, its Downside Threshold.

- The Anti-Dilution Protection for Each Underlying Is Limited — The calculation agent will make adjustments to the Initial Price, Downside Threshold and Coupon Barrier of each Underlying for certain events affecting the shares of the Underlyings. However, the calculation agent will not be required to make an adjustment in response to all events that could affect an Underlying. If an event occurs that does not require the calculation agent to make an adjustment, the value of the Notes may be materially and adversely affected.

Hypothetical Examples

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

The following examples are hypothetical and provided for illustrative purposes only. They do not purport to be representative of every possible scenario concerning increases or decreases in the price of either Underlying relative to its Initial Price. We cannot predict the Final Price of any Underlying. You should not take these examples as an indication or assurance of the expected performance of either Underlying. The numbers appearing in the examples and tables below have been rounded for ease of analysis. The following examples and tables illustrate the Payment at Maturity or upon an automatic call per Note on a hypothetical offering of the Notes, based on the following hypothetical assumptions (actual Initial Prices, Coupon Barriers and Downside Thresholds will be set forth in the final pricing supplement):

Principal Amount:	$10.00
Term:	Approximately three years
Hypothetical Initial Price*:	$100.00
Contingent Coupon Rate:	7.10% per annum (or 1.775% per quarter)
Contingent Coupon**:	$0.1775 per quarter
Coupon Observation Dates:	Quarterly
Call Observation Dates:	Quarterly (callable after six months)
Hypothetical Initial Prices*:	
Underlying A:	$100.00
Underlying B:	$100.00
Hypothetical Coupon Barriers*:	
Underlying A:	$70.00 (which is 70% of its Initial Price)
Underlying B:	$70.00 (which is 70% of its Initial Price)
Hypothetical Downside Thresholds*:	
Underlying A:	$70.00 (which is 70% of its Initial Price)
Underlying B:	$70.00 (which is 70% of its Initial Price)

* Will not be the actual Initial Price, Coupon Barrier or Downside Threshold applicable to the Notes. The actual Initial Price, Coupon Barrier and Downside Threshold will be set forth on the cover page of the pricing supplement relating to this offering.

** Contingent Coupon payments, if payable, will be paid in arrears in equal quarterly installments during the term of the Notes unless earlier called.

Scenario #1: Notes Are Called on the Fourth Coupon Observation Date.

Date	Closing Price	Payment (per Note)
First Coupon Observation Date	Underlying A: $100.00 (at or above Initial Price) Underlying B: $110.00 (at or above Initial Price)	$0.1775 (Contingent Coupon – not callable)
Second Coupon Observation Date	Underlying A: $95.00 (at or above Coupon Barrier; below Initial Price) Underlying B: $60.00 (below Coupon Barrier)	$0.00 (Notes are not called)
Third Coupon Observation Date	Underlying A: $95.00 (at or above Coupon Barrier; below Initial Price) Underlying B: $60.00 (below Coupon Barrier)	$0.00 (Notes are not called)
Fourth Coupon Observation Date	Underlying A: $110.00 (at or above Initial Price) Underlying B: $115.00 (at or above Initial Price)	$10.1775 (settlement amount)

Total Payment:	$10.355 (3.55% return)

Since the Notes are called on the fourth Coupon Observation Date, we will pay you on the Call Settlement Date a total of $10.1775 per Note, reflecting your principal amount plus the applicable Contingent Coupon. When added to the Contingent Coupon payments of $0.1775 received in respect of a prior Coupon Observation Date, we will have paid you a total of $10.355 per Note, for a 3.55% total return on the Notes. No further amount will be owed to you under the Notes.

Scenario #2: Notes Are NOT Called and the Final Prices of Both Underlyings Are at or Above Their Respective Downside Thresholds.

Date	Closing Price	Payment (per Note)
First Coupon Observation Date	Underlying A: $110.00 (at or above Initial Price) Underlying B: $80.00 (at or above Coupon Barrier; below Initial Price)	$0.1775 (Contingent Coupon – not callable)
Second Coupon Observation Date	Underlying A: $50.00 (below Coupon Barrier) Underlying B: $90.00 (at or above Coupon Barrier; below Initial Price)	$0.00 (Notes are not called)
Third Coupon Observation Date	Underlying A: $95.00 (at or above Coupon Barrier; below Initial Price) Underlying B: $40.00 (below Coupon Barrier)	$0.00 (Notes are not called)
Fourth Coupon Observation Date	Underlying A: $95.00 (at or above Coupon Barrier; below Initial Price) Underlying B: $60.00 (below Coupon Barrier)	$0.00 (Notes are not called)
Fifth through Eleventh Coupon Observation Dates	Underlying A: Various (below Coupon Barrier) Underlying B: Various (above Initial Price)	$0.00 (Notes are not called)
Final Valuation Date	Underlying A: $90.00 (at or above Downside Threshold and Coupon Barrier; below Initial Price) Underlying B: $115.00 (at or above Downside Threshold, Coupon Barrier and Initial Price)	$10.1775 (Payment at Maturity)
	Total Payment:	$10.355 (3.55% return)

At maturity, we will pay you a total of $10.1775 per Note, reflecting your principal amount plus the applicable Contingent Coupon. When added to the Contingent Coupon payment of $0.1775 received in respect of a prior Coupon Observation Date, we will have paid you a total of $10.355 per Note, for a 3.55% total return on the Notes.

Scenario #3: Notes Are NOT Called and the Final Price of One Underlying Is Below its Downside Threshold

Date	Closing Price	Payment (per Note)
First Coupon Observation Date	Underlying A: $85.00 (at or above Coupon Barrier; below Initial Price) Underlying B: $120.00 (above Initial Price)	$0.1775 (Contingent Coupon – not callable)
Second Coupon Observation Date	Underlying A: $90.00 (at or above Coupon Barrier; below Initial Price) Underlying B: $80.00 (at or above Coupon Barrier; below Initial Price)	$0.1775 (Contingent Coupon – not called)
Third Coupon Observation Date	Underlying A: $220.00 (above Initial Price) Underlying B: $80.00 (at or above Coupon Barrier; below Initial Price)	$0.1775 (Contingent Coupon – not called)
Fourth Coupon Observation Date	Underlying A: $95.00 (at or above Coupon Barrier; below Initial Price) Underlying B: $60.00 (below Coupon Barrier)	$0.00 (Notes are not called)
Fifth through Eleventh Coupon Observation Dates	Underlying A: Various (below Coupon Barrier) Underlying B: Various (above Initial Price)	$0.00 (Notes are not called)
Final Valuation Date	Underlying A: $50.00 (below Downside Threshold and Coupon Barrier) Underlying B: $130.00 (above Initial Price)	$10.00 + [$10.00 × Underlying Return] = $10.00 + [$10.00 × -50%] = $10.00 - $5.00 = $5.00 (Payment at Maturity)

Total Payment:	$5.5325 (-44.675% return)

Since the Notes are not called and the Final Price of the Least Performing Underlying is below the Downside Threshold, we will pay you at maturity $5.00 per Note. When added to the Contingent Coupon payments of $0.5325 received in respect of prior Coupon Observation Dates, we will have paid you $5.5325 per Note, for a loss on the Notes of 44.675%.

The Notes differ from ordinary debt securities in that, among other features, we are not necessarily obligated to repay the full amount of your initial investment. If the Notes are not called on any Call Observation Date, you may lose some or all of your initial investment. Specifically, if the Notes are not called and the Final Price of one or both of the Underlyings is less than its Downside Threshold, you will lose 1% (or a fraction thereof) of your principal amount for each 1% (or a fraction thereof) that the Underlying Return of the Least Performing Underlying is less than zero.

Any payment on the Notes, including payments in respect of an automatic call, Contingent Coupon or any repayment of principal provided at maturity, is dependent on our ability to satisfy our obligations when they come due. If we are unable to meet our obligations, you may not receive any amounts due to you under the Notes.

What Are the Tax Consequences of the Notes?

U.S. Federal Income Tax Consequences

The following, together with the discussion of U.S. federal income tax in the accompanying product prospectus supplement, prospectus supplement, and prospectus, is a general description of the material U.S. federal income tax consequences relating to an investment in the Notes. The following summary is not complete and is qualified in its entirety by the discussion under the section entitled "Supplemental Discussion of U.S. Federal Income Tax Consequences" in the accompanying product prospectus supplement no. UBS-TPAOS-2, 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 Notes.

In the opinion of our counsel, Morrison & Foerster LLP, it would generally be reasonable to treat the Notes as a callable pre-paid cash-settled contingent income-bearing derivative contract linked to the Underlying for U.S. federal income tax purposes, and the terms of the Notes 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 Notes for all tax purposes in accordance with such characterization. Although the U.S. federal income tax treatment of the Contingent Coupons is uncertain, we intend to take the position, and the following discussion assumes, that such Contingent Coupons (including any coupon paid on or with respect to the call or maturity date) constitute taxable ordinary income to a U.S. holder at the time received or accrued in accordance with the holder's regular method of accounting. If the Notes are treated as described above, subject to the potential application of the "constructive ownership" rules under Section 1260 of the Internal Revenue Code, a U.S. holder should generally recognize capital gain or loss upon the call, sale or maturity of the Notes in an amount equal to the difference between the amount a holder receives at such time (other than amounts properly attributable to any Contingent Coupon, which would be taxed, as described above, as ordinary income) and the holder's tax basis in the Notes. 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 Notes. According to the notice, the Internal Revenue Service and the Treasury Department are actively considering whether the holder of an instrument such as the Notes 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 Notes 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 Notes.

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

events affecting the Underlying or the Notes, and following such occurrence the Notes could be treated as subject to withholding on dividend equivalent payments. Non-U.S. holders that enter, or have entered, into other transactions in respect of the Underlying or the Notes should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the Notes and their other transactions. If any payments are treated as dividend equivalents subject to withholding, we (or the applicable withholding agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

The Notes are not intended for purchase by any investor that is not a United States person, as that term is defined for U.S. federal income tax purposes, and the underwriters will not make offers of the Notes to any such investor.

Canadian Federal Income Tax Consequences

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

Information About the Underlyings

We have derived the following information regarding each of the applicable Underlyings 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 Underlyings and the Underlyings will have no obligations with respect to the Notes. This document relates only to the Notes and does not relate to the shares of any of the Underlying or any securities included in any of the underlying indices of the Underlyings. Neither we nor any of our affiliates participates in the preparation of the publicly available documents described below. Neither we nor any of our affiliates has made any due diligence inquiry with respect to any of the Underlyings in connection with the offering of any of the Notes. There can be no assurance that all events occurring prior to the date of this document, including events that would affect the accuracy or completeness of the publicly available documents described below, that would affect the trading prices of the shares of any of the Underlyings 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 Underlyings could affect the price of the shares of the applicable Underlying after the trade date, and therefore could affect the payment at maturity.

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

The iShares® Russell 2000 ETF

iShares consists of separate investment portfolios (the "iShares Funds"), including the IWM. The IWM seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of its underlying index. The IWM typically earns income from dividends from securities it holds. These amounts, net of expenses and taxes (if applicable), are passed along to shareholders of the IWM as "ordinary income." In addition, the IWM realizes capital gains or losses whenever they sell securities. Net long-term capital gains are distributed to the IWMs shareholders as "capital gain distributions." However, because the Notes are linked to the share price of the IWM, you will not be entitled to receive income, dividend, or capital gain distributions from the applicable Underlying or any equivalent payments. "iShares®" 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 Notes or any member of the public regarding the advisability of investing in any of the Notes. Neither BlackRock® nor the iShares® funds shall have any obligation or liability in connection with the registration, operation, marketing, trading, or sale of any of the Notes or in connection with our use of information about any of the IWM or any of the iShares® funds.

The IWM seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the Russell 2000® Index. The shares of this underlying 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. FTSE Russell calculates and publishes the RTY. The RTY was set to 135 as of the close of business on December 31, 1986. 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 Notes.

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 rank 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, rights, installment receipts or trust receipts, are excluded from the calculation. If multiple share classes of common stock exist, they are combined to determine total shares outstanding. 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 ineligible for inclusion. 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. Based on closing levels of the company's common stock on its primary exchange on the rank day of May of each year, FTSE Russell reconstitutes the composition of the RTY using the then existing market capitalizations of eligible companies. 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 Friday. In addition, the index sponsor adds initial public offerings to the RTY on a quarterly basis based on total market capitalization 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	6/30/2017	$142.10	$133.72	$140.92
7/1/2017	9/30/2017	$148.18	$134.83	$148.18
10/1/2017	12/31/2017	$154.30	$145.63	$152.46
1/1/2018	1/2/2018*	$153.90	$153.90	$153.90

* This free writing prospectus includes information for the first calendar quarter of 2018 for the period from January 1, 2018 through January 2, 2018. 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 first

calendar quarter of 2018.

The graph below illustrates the performance of the IWM from January 2, 2008 to January 2, 2018, assuming an Initial Price of $153.90, which was its closing price on January 2, 2018. The solid line represents a hypothetical Downside Threshold and Coupon Barrier of $107.73, which is equal to 70% of its closing price on January 2, 2018. The actual Coupon Barrier and Downside Threshold will be based on the closing price of IWM on the trade date.

HISTORIC PERFORMANCE IS NOT AN INDICATION OF FUTURE PERFORMANCE.

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

The SPDR® EURO STOXX 50® ETF

The FEZ is an investment portfolio maintained and managed by SSFM. SSFM is the investment advisor to each of ten separate investment portfolios, including the FEZ, all of which are offered by the SPDR® Series Trust, a registered investment company. The SPDR® EURO STOXX 50® ETF trades on the NYSE Arca under the ticker symbol "FEZ." Information provided to or filed with the SEC by the SPDR® Series Trust under the Securities Exchange Act of 1934 can be located by reference to its Central Index Key, or CIK, 1064642 through the SEC's website at http://www.sec.gov. Additional information about SSFM and the FEZ may be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. We make no representation or warranty as to the accuracy or completeness of such information.

Each Underlying Asset seeks to provide investment results that, before fees and expenses, correspond generally to the total return performance of the EURO STOXX 50® Index (the "SX5E" or the "Underlying Index"). The FEZ utilizes a "replication" investment approach in attempting to track the performance of the Underlying Index. The FEZ typically invests in substantially all of the securities which comprise the Underlying Index in approximately the same proportions as the Underlying Index. The FEZ will normally invest at least 80% of its total assets in common stocks that comprise the Underlying Index.

The EURO STOXX 50® Index

The SX5E was created by STOXX Limited, a subsidiary of Deutsche Börse AG. Publication of the SX5E began in February 1998, based on an initial SX5E level of 1,000 at December 31, 1991.

Composition and Maintenance

The SX5E is composed of 50 component stocks of market sector leaders from within the 19 EURO STOXX® Supersector indices, which represent the Eurozone portion of the STOXX Europe 600® Supersector indices.

The composition of the SX5E is reviewed annually, based on the closing stock data on the last trading day in August. The component stocks are announced on the first trading day in September. Changes to the component stocks are implemented on the third Friday in September and are effective the following trading day. Changes in the composition of the SX5E are made to ensure that the SX5E includes the 50 market sector leaders from within the SX5E.

The free float factors for each component stock used to calculate the SX5E, as described below, are reviewed, calculated, and implemented on a quarterly basis and are fixed until the next quarterly review.

The SX5E is also reviewed on an ongoing monthly basis. Corporate actions (including initial public offerings, mergers and takeovers, spin-offs, delistings, and bankruptcy) that affect the SX5E composition are announced immediately, implemented two trading days later and become effective on the next trading day after implementation.

Calculation of the SX5E

The SX5E is calculated with the "Laspeyres formula," which measures the aggregate price changes in the component stocks against a fixed base quantity weight. The formula for calculating the SX5E value can be expressed as follows:

$$\text{Index} = \frac{\text{Free float market capitalization of the SX5E}}{\text{Divisor}} \times 1{,}000$$

The "free float market capitalization of the SX5E" is equal to the sum of the products of the price, the number of shares, the free float factor and the weighting cap factor for each component stock as of the time the SX5E is being calculated.

The SX5E is also subject to a divisor, which is adjusted to maintain the continuity of the SX5E values across changes due to corporate actions, such as the deletion and addition of stocks, the substitution of stocks, stock dividends, and stock splits.

Historical Information

The following table sets forth the quarterly high, low and period-end closing prices of the FEZ, as reported by Bloomberg Financial Markets. The historical performance of the FEZ should not be taken as an indication of its future performance. We cannot give you assurance that the performance of the FEZ 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	$62.76	$52.71	$56.35
4/1/2008	6/30/2008	$60.36	$51.31	$51.31
7/1/2008	9/30/2008	$52.22	$41.13	$42.59
10/1/2008	12/31/2008	$42.55	$26.35	$34.35
1/1/2009	3/31/2009	$34.93	$22.28	$27.15
4/1/2009	6/30/2009	$36.63	$27.68	$33.30
7/1/2009	9/30/2009	$42.18	$31.35	$41.33
10/1/2009	12/31/2009	$43.55	$39.58	$41.48
1/1/2010	3/31/2010	$43.10	$35.37	$38.90
4/1/2010	6/30/2010	$40.55	$30.01	$30.57
7/1/2010	9/30/2010	$37.16	$30.87	$36.71
10/1/2010	12/31/2010	$40.47	$34.04	$36.84
1/1/2011	3/31/2011	$41.34	$35.28	$40.71
4/1/2011	6/30/2011	$44.03	$37.61	$40.60
7/1/2011	9/30/2011	$41.18	$26.49	$28.28
10/1/2011	12/31/2011	$34.92	$27.24	$29.51
1/1/2012	3/31/2012	$33.92	$28.59	$32.46
4/1/2012	6/30/2012	$32.76	$25.83	$28.22
7/1/2012	9/30/2012	$33.41	$25.47	$31.03
10/1/2012	12/31/2012	$34.79	$30.54	$34.66
1/1/2013	3/31/2013	$36.40	$32.78	$33.04
4/1/2013	6/30/2013	$36.58	$32.44	$33.11
7/1/2013	9/30/2013	$39.13	$32.80	$38.38
10/1/2013	12/31/2013	$42.20	$38.48	$42.20
1/1/2014	3/31/2014	$42.66	$38.94	$42.66
4/1/2014	6/30/2014	$45.11	$42.16	$43.27
7/1/2014	9/30/2014	$43.81	$39.26	$39.70
10/1/2014	12/31/2014	$39.70	$35.94	$36.86
1/1/2015	3/31/2015	$39.67	$34.86	$38.82
4/1/2015	6/30/2015	$40.71	$37.43	$37.43
7/1/2015	9/30/2015	$39.59	$33.18	$33.85
10/1/2015	12/31/2015	$37.05	$33.74	$34.43
1/1/2016	3/31/2016	$33.70	$29.92	$33.23
4/1/2016	6/30/2016	$34.75	$29.18	$31.15
7/1/2016	9/30/2016	$33.81	$29.88	$32.76
10/1/2016	12/31/2016	$33.46	$31.08	$33.46
1/1/2017	3/31/2017	$36.54	$33.53	$36.35
4/1/2017	6/30/2017	$40.18	$35.55	$38.47
7/1/2017	9/30/2017	$41.25	$38.39	$41.25
10/1/2017	12/31/2017	$41.89	$40.65	$40.71
1/1/2018	1/2/2018*	$40.89	$40.89	$40.89

* This free writing prospectus includes information for the first calendar quarter of 2018 for the period from January 1, 2018 through January 2, 2018. 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 first calendar quarter of 2018.

The graph below illustrates the performance of the FEZ from January 2, 2008 to January 2, 2018, assuming an Initial Price of $40.89, which was its closing price on January 2, 2018. The solid line represents a hypothetical Downside Threshold and Coupon Barrier of $28.62, which is equal to 70% of its closing price on January 2, 2018, rounded to two decimal places. The actual Coupon Barrier and Downside Threshold will be based on the closing price of FEZ on the trade date.

HISTORIC PERFORMANCE IS NOT AN INDICATION OF FUTURE PERFORMANCE.

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

Correlation of the Underlyings

The graph below illustrates the daily performance of the Underlyings from January 2, 2008 through January 2, 2018. For comparison purposes, each Underlying has been normalized to have a closing price of $100.00 on January 2, 2008 by dividing the closing price of that Underlying on each day by the closing price of that Underlying on January 2, 2008 and multiplying by $100.00. We obtained the closing prices used to determine the normalized closing prices set forth below from Bloomberg L.P., without independent verification.

Past performance of the Underlyings is not indicative of their future performance.

The correlation of a pair of Underlyings represents a statistical measurement of the degree to which the returns of those Underlyings were similar to each other over a given period in terms of timing and direction (i.e., positive or negative). The closer the relationship of the daily returns of the Underlyings over a given period, the more positively correlated those Underlyings are. The graph above illustrates the historical performance of the Underlyings relative to one another over the time period shown and provides an indication of how close the relative performance of the daily returns of one Underlying has historically been to the other. The lower (or more negative) the correlation between two Underlyings, the less likely it is that those Underlyings will move in the same direction and, therefore, the greater the potential for one of those Underlyings to close below its Coupon Barrier or Downside Threshold on any Coupon Observation Date or the Final Valuation Date, respectively. This is because the less positively correlated a pair of Underlyings are, the greater the likelihood that at least one of those Underlyings will decrease in value. This results in a greater potential for a Contingent Coupon not to be paid during the term of the Notes and for a loss of principal at maturity. However, even if the two Underlyings have a higher positive correlation, one or both of those Underlyings might close below its Coupon Barrier or Downside Threshold on a Coupon Observation Date or the Final Valuation Date, as both of those Underlyings may decrease in value together.

The lower the correlation between two Underlyings, the greater the potential for one of those Underlyings to close below its Coupon Barrier or its Downside Threshold on any Coupon Observation Date or the Final Valuation Date, respectively. Therefore, the greater the number of Underlyings, the greater the potential for missed Contingent Coupons and for a loss of principal at maturity. We determine the Contingent Coupons for the Notes based, in part, on the correlation among the Underlyings, calculated using internal models at the time the terms of the Notes are set. As discussed above, increased risk resulting from lower correlation or from a greater number of Underlyings will be reflected in a higher Contingent Coupon than would be payable on securities linked to fewer Underlyings or that have a higher degree of correlation.

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 Financial Services Inc. may sell all or a part of the Notes that it will purchase from us to investors at the price to public or to 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 Notes.

Subject to regulatory constraints and market conditions, RBCCM intends to offer to purchase the Notes 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 Notes 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” in the accompanying product prospectus supplement no. UBS-TPAOS-2.

We expect to deliver the Notes on a date that is greater than two business days following the trade date. Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree

otherwise. Accordingly, purchasers who wish to trade the Notes more than two business days prior to the original issue date will be required to specify alternative settlement arrangements to prevent a failed settlement.

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

No Prospectus (as defined in Directive 2003/71/EC (as amended, the "Prospectus Directive")) will be prepared in connection with these Notes. Accordingly, these Notes may not be offered to the public in any member state of the European Economic Area (the "EEA"), and any purchaser of these Notes who subsequently sells any of these Notes in any EEA member state must do so only in accordance with the requirements of the Prospectus Directive, as implemented in that member state.

The Notes are not intended to be offered, sold or otherwise made available to, and should not be offered, sold or otherwise made available to, any retail investor in the EEA. For these purposes, the expression "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes, and a "retail investor" means a person who is one (or more) of: (a) a retail client, as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); or (b) a customer, within the meaning of Insurance Distribution Directive 2016/97/EU, as amended, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (c) not a qualified investor as defined in the Prospectus Directive. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared, and therefore, offering or selling the notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

Structuring the Notes

The Notes 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 Notes reflect our actual or perceived creditworthiness at the time of pricing. In addition, because structured notes result in increased operational, funding and liability management costs to us, we typically borrow the funds under these Notes at a rate that is more favorable to us than the rate that we might pay for a conventional fixed or floating rate debt security of comparable maturity. Using this relatively lower implied borrowing rate rather than the secondary market rate is a factor that is likely to result in a higher initial estimated value of the Notes 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 Notes, any value of the Notes 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 Notes than if our initial internal borrowing rate were used.

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

terms of the Notes and their initial estimated value depend in part on the terms of these hedging arrangements. The lower implied borrowing rate is a factor that reduces the economic terms of the Notes to you. The initial offering price of the Notes also reflects the underwriting commission and our estimated hedging costs. These factors result in the initial estimated value for the Notes on the trade date being less than their public offering price. See "Key Risks—The Initial Estimated Value of the Notes 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 Notes" and the provisions in the accompanying product prospectus supplement no. UBS-TPAOS-2 dated January 20, 2016 under the caption "General Terms of the Securities" are incorporated into the master note issued to DTC, the registered holder of the Notes.