ROYAL BANK OF CANADA
Form 424B2
September 27, 2018

PRICING SUPPLEMENT
Filed Pursuant to Rule 424(b)(2)
Registration Statement No. 333-227001
Dated September 25, 2018
Royal Bank of Canada Bearish Barrier Market Linked Notes with Daily Barrier Observation
$3,895,000 Securities Linked to the S&P 500® Index due on September 30, 2020

Investment Description

Bearish Barrier Market Linked Notes with Daily Barrier Observation (each, a "Security" and collectively, the "Securities") are unconditional, unsecured and unsubordinated debt securities issued by Royal Bank of Canada with returns linked to the performance of the S&P 500® Index (the "Underlying"). The amount you receive at maturity will be based on the performance of the Underlying over the term of the Securities. If (i) a Barrier Event (as defined below) has occurred during the Observation Period (as defined below), meaning that the closing level of the Underlying on any trading day during the Observation Period is less than the Lower Barrier (as defined below) or (ii) the closing level of the Underlying on the Final Valuation Date (as defined below) is equal to greater than the Initial Underlying Level (as defined below), we will pay you an amount in cash per Security at maturity equal to the principal amount plus a return equal to the Conditional Return (as defined below). If a Barrier Event has not occurred during the Observation Period and the closing level of the Underlying on the Final Valuation Date is less than the Initial Underlying Level, we will pay you an amount in cash per Security at maturity equal to the principal amount plus a return equal to the absolute value of the "Underlying Return," which is the percentage change in the closing level of the Underlying from the Trade Date (as defined below) to the Final Valuation Date. Investing in the Securities involves significant risks. The Securities do not pay dividends or interest. Your return on the Securities is limited to 2% if a Barrier Event occurs during the Observation Period or if the closing level of the Underlying on the Final Valuation Date is equal to or greater than the Initial Underlying Level. If a Barrier Event does not occur during the Observation Period and the closing level of the Underlying on the Final Valuation Date is less than the Initial Underlying Level, your return on the Securities is limited to 35.25% due to the inclusion of the Lower Barrier. The repayment of principal applies only if the Securities are held to maturity. Any payment on the Securities, including any repayment of principal, is subject to our creditworthiness. If we were to default on our payment obligations, you may not receive any amounts owed to you under the Securities and you could lose your entire investment. The Securities will not be listed on any securities exchange.

Features Key Dates

£ Conditional Return at Maturity if a Barrier Event Occurs or if the Closing Level of the Underlying on the Final Valuation Date Is Equal to or Greater than the Initial Underlying Level: If a Barrier Event has occurred during the Observation Period or if the closing level of the Underlying on the Final Valuation Date is equal to or greater than the Initial Underlying Level, we will pay you an amount in cash per Security at maturity equal to the principal amount plus a return equal to the Conditional Return.

£ Bearish Growth Potential if a Barrier Event Does Not Occur: If a Barrier Event has not occurred during the Observation Period and the closing level of the Underlying on the Final Valuation Date is less than the Initial Underlying Level, we will pay you an amount in cash per Security at maturity equal to the principal amount plus a return equal to the absolute value of the Underlying Return, which is equal to the absolute value of the percentage change in the closing level of the Underlying from the Trade Date to the Final Valuation Date.

£ Repayment of Principal: If you hold the Securities to maturity, you will receive at least your entire principal amount regardless of the performance of the Underlying, subject to our creditworthiness.

Trade Date	September 25, 2018
Settlement Date	September 28, 2018
Final Valuation Date[1]	September 25, 2020
Maturity Date[1]	September 30, 2020

[1] Subject to postponement in the event of a market disruption event, as described under “General Terms of the Securities—Payment at Maturity” in the accompanying product prospectus supplement UBS-IND-1.

NOTICE TO INVESTORS: THE SECURITIES ARE SIGNIFICANTLY RISKIER THAN CONVENTIONAL DEBT INSTRUMENTS. THE SECURITIES HAVE FULL DOWNSIDE MARKET RISK SIMILAR TO THE UNDERLYING. THIS MARKET RISK IS IN ADDITION TO THE CREDIT RISK INHERENT IN PURCHASING OUR DEBT OBLIGATION. YOU SHOULD NOT PURCHASE THE SECURITIES IF YOU DO NOT UNDERSTAND OR ARE NOT COMFORTABLE WITH THE SIGNIFICANT RISKS INVOLVED IN INVESTING IN THE SECURITIES.

YOU SHOULD CAREFULLY CONSIDER THE RISKS DESCRIBED UNDER “KEY RISKS” BEGINNING ON PAGE 5 OF THIS PRICING SUPPLEMENT AND UNDER ‘‘RISK FACTORS’’ BEGINNING ON PAGE PS-4 OF THE ACCOMPANYING PRODUCT PROSPECTUS SUPPLEMENT UBS-IND-1 BEFORE PURCHASING ANY SECURITIES. EVENTS RELATING TO ANY OF THOSE RISKS, OR OTHER RISKS AND UNCERTAINTIES, COULD ADVERSELY AFFECT THE MARKET VALUE OF, AND THE RETURN ON, YOUR SECURITIES.

Security Offering

We are offering Bearish Barrier Market Linked Notes with Daily Barrier Observation Linked to the S&P 500® Index. The return on the principal amount is subject to, and will not exceed, the predetermined Maximum Payment at Maturity (as defined below).

Underlying	Initial Underlying Level	Lower Barrier	Conditional Return	CUSIP	ISIN
S&P 500® Index (SPX)	2,915.56	1,887.83 (The Initial Underlying Level minus 35.25% of the Initial Underlying Level) (rounded to two decimal places)	2.00%	78013XD62	US78013XD626

See “Additional Information About Royal Bank of Canada and the Securities” in this pricing supplement. The Securities will have the terms specified in the prospectus dated September 7, 2018, the prospectus supplement dated September 7, 2018, product prospectus supplement UBS-IND-1 dated September 7, 2018 and this pricing supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the Securities or passed upon the accuracy or the adequacy of this pricing supplement or the accompanying prospectus, prospectus supplement and product prospectus supplement UBS-IND-1. Any representation to the contrary is a criminal offense.

	Price to Public		Fees and Commissions(1)		Proceeds to Us	
Offering of the Securities	Total	Per Security	Total	Per Security	Total	Per Security
Securities Linked to the S&P 500® Index (SPX)	$3,895,000	$1,000	$58,425	$15	$3,836,575	$985

(1) UBS Financial Services Inc., which we refer to as “UBS,” received a commission of $15.00 per $1,000 principal amount of the Securities. See “Supplemental Plan of Distribution (Conflicts of Interest)” below.

The initial estimated value of the Securities as of the date of this document is $978.64 per $1,000 in principal amount, which is less than the price to public. The actual value of the Securities at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount. We describe our determination of the initial estimated value under “Key Risks” beginning on page 5, “Supplemental Plan of Distribution (Conflicts of Interest)” and “Structuring the Securities” below.

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

UBS Financial Services Inc. RBC Capital Markets, LLC

Additional Information About Royal Bank of Canada and the Securities

You should read this pricing supplement together with the prospectus dated September 7, 2018, as supplemented by the prospectus supplement dated September 7, 2018, relating to our senior global medium-term notes, Series H, of which these Securities are a part, and the more detailed information contained in product prospectus supplement UBS-IND-1 dated September 7, 2018. This pricing supplement, together with the documents listed below, contains the terms of the Securities and supersedes all other prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, fact sheets, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in "Risk Factors" in the accompanying product prospectus supplement UBS-IND-1, as the Securities involve risks not associated with conventional debt securities.

To the extent that the terms discussed in this pricing supplement differ from those discussed in the product prospectus supplement, the prospectus supplement, or the prospectus, the terms discussed herein will control. For example, under the terms of the Securities, investors will not benefit from increases in the level of the Underlying from the Trade Date, because in such a case, they will receive only the Conditional Return.

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 UBS-IND-1 dated September 7, 2018: https://www.sec.gov/Archives/edgar/data/1000275/000114036118038046/form424b5.htm
- Prospectus supplement dated September 7, 2018: https://www.sec.gov/Archives/edgar/data/1000275/000121465918005975/f97180424b3.htm
- Prospectus dated September 7, 2018: https://www.sec.gov/Archives/edgar/data/1000275/000121465918005973/l96181424b3.htm

As used in this pricing supplement, "we," "us" or "our" refers to Royal Bank of Canada.

Investor Suitability

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

- You fully understand the risks inherent in an investment in the Securities, including the risk of receiving a return at maturity that may be equal to, or less than, the Conditional Return.
- You can tolerate fluctuations in the price of the Securities prior to maturity that may be similar to or exceed the downside fluctuations in the level of the Underlying.
- You believe that the closing level of the Underlying will not be less than the Lower Barrier on any trading day during the Observation Period and the Final Underlying Level will be less than the Initial Underlying Level and understand and are willing to accept that you will benefit from the absolute value of the Underlying Return only if a Barrier Event does not occur during the Observation Period and the Final Underlying Level is less than the Initial Underlying Level.
- You understand and accept that your potential return is limited by the Lower Barrier if a Barrier Event does not occur during the Observation Period and the Final Underlying Level is less than the Initial Underlying Level. Conversely, you understand and accept that your potential return is limited by the Conditional Return if a Barrier Event occurs during the Observation Period or if the Final Underlying Level is equal to or greater than the Initial Underlying Level.
- You are willing to invest in the Securities based on the Conditional Return and the Lower Barrier, each indicated on the cover hereof.
- You do not seek current income from your investment and are willing to forgo dividends paid on the securities represented by the Underlying.
- You are willing to hold the Securities to maturity and accept that there may be little or no secondary market for the Securities.
- You are willing to assume our credit risk for all payments under the Securities, and understand that if we default on our obligations, you may not receive any amounts due to you, including any repayment of principal.
- You fully understand and accept the risks associated with the Underlying.

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

- You do not fully understand the risks inherent in an investment in the Securities, including the risk of receiving a return at maturity that may be equal to, or less than, the Conditional Return.
- You believe that the closing level of the Underlying on any trading day during the Observation Period will decrease to a level below the Lower Barrier.
- You believe that the Final Underlying Level of the Underlying will approach or exceed the Initial Underlying Level of the Underlying.
- You cannot tolerate fluctuations in the price of the Securities prior to maturity that may be similar to or exceed the downside fluctuations in the level of the Underlying.
- You do not fully understand or are unwilling to accept that you will benefit from the absolute value of the Underlying Return only if a Barrier Event does not occur during the Observation Period and the Final Underlying Level is less than the Initial Underlying Level.
- You believe that the closing level of the Underlying over the term of the Securities will be less than the Lower Barrier, that the Final Underlying Level of the Underlying will approach or exceed the Initial Underlying Level of the Underlying or you seek an investment that has unlimited return potential without a cap on appreciation.
- You are unwilling to invest in the Securities based on the Conditional Return and the Lower Barrier, each indicated on the cover hereof.
- You seek current income from this investment or prefer to receive the dividends paid on the securities represented by the Underlying.
- You are unable or unwilling to hold the Securities to maturity or you seek an investment for which there will be an active secondary market.
- You are not willing to assume our credit risk for all payments under the Securities, including any repayment of principal.
- You do not fully understand and accept the risks associated with the Underlying.

The suitability considerations identified above are not exhaustive. Whether or not the Securities are a suitable investment for you will depend on your individual circumstances, and you should reach an investment decision only after you and your investment, legal, tax, accounting, and other advisers have carefully considered the suitability of an investment in the Securities in light of your particular circumstances. You should also review carefully the “Key Risks” in this pricing supplement and “Risk Factors” in the accompanying product prospectus supplement UBS-IND-1 for risks related to an investment in the Securities. In addition, you should review carefully the section below, “Information About the Underlying,” for more information about the Underlying.

Final Terms of the Securities[1]

Issuer:	Royal Bank of Canada
Issue Price:	$1,000 per Security
Principal Amount:	$1,000 per Security
Term:	24 months
Underlying:	S&P 500® Index
Conditional Return:	2%
Maximum Payment at Maturity (per Security):	$1,352.50
Barrier Event:	A Barrier Event will occur if the closing level of the Underlying is less than the Lower Barrier on any trading day during the Observation Period.
Lower Barrier:	1,887.83 (Initial Underlying Level minus 35.25% of the Initial Underlying Level)(rounded to two decimal places)
Observation Period:	Each trading day from but excluding the Trade Date to and including the Final Valuation Date. If a market disruption occurs on any such trading day, the Calculation Agent may disregard it for purposes of determining whether a Barrier Event has occurred.
Payment at Maturity (per $1,000 Security):	If a Barrier Event has occurred during the Observation Period, irrespective of the Final Underlying Level, we will pay you an amount in cash per Security on the Maturity Date equal to: $1,000 × (1 + Conditional Return) If a Barrier Event has not occurred during the Observation Period and the Final Underlying Level is equal to or greater than the Initial Underlying Level, we will pay you an amount in cash per Security on the Maturity Date equal to: $1,000 × (1 + Conditional Return) If a Barrier Event has not occurred during the Observation Period and the Final Underlying Level is less than the Initial Underlying Level, we will pay you an amount in cash per Security on the Maturity Date equal to: $1,000 × (1 + absolute value of the Underlying Return) Because the Lower Barrier will be equal to the Initial Underlying Level minus 35.25% of the Initial Underlying Level, the Maximum Payment at Maturity is $1,352.50 per Security, and your maximum return is limited to 35.25%. Any payment on the Securities, including any repayment of principal, is subject to our creditworthiness. If we were to default on our payment obligations, you may not receive any amounts owed to you under the Securities and you could lose all of your initial investment.
Underlying Return:	<u>Final Underlying Level – Initial Underlying Level</u>

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

Initial Underlying Level

If a Barrier Event has not occurred during the term of the Securities and the Final Underlying Level is less than the Initial Underlying Level, your Payment at Maturity will be based on the absolute value of the Underlying Return. For example, if the Underlying Return is -5%, the absolute value of the Underlying Return will be equal to 5%.

Initial Underlying Level:	2,915.56
Final Underlying Level:	The closing level of the Underlying on the Final Valuation Date.

Investment Timeline

Trade Date:	The Maximum Payment at Maturity was set. The Initial Underlying Level and the Lower Barrier were determined.
Each Trading Day During the Observation Period:	The closing level of the Underlying is observed.
Maturity Date:	The Final Underlying Level is determined on the Final Valuation Date and the absolute value of the Underlying Return is determined. If a Barrier Event has occurred during the Observation Period, irrespective of the Final Underlying Level, we will pay you an amount in cash per Security on the Maturity Date equal to: \$1,000 × (1 + Conditional Return) If a Barrier Event has not occurred during the Observation Period and the Final Underlying Level is equal to or greater than the Initial Underlying Level, we will pay you an amount in cash per Security on the Maturity Date equal to: \$1,000 × (1 + Conditional Return) If a Barrier Event has not occurred during the Observation Period and the Final Underlying Level is less than the Initial Underlying Level, we will pay you an amount in cash per Security on the Maturity Date equal to: \$1,000 × (1 + absolute value of the Underlying Return)

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

Key Risks

An investment in the Securities involves significant risks. Investing in the Securities is not equivalent to investing directly in, or taking a short position in, any of the component securities of the Underlying. These risks are explained in more detail in the "Risk Factors" section of the accompanying product prospectus supplement UBS-IND-1. We also urge you to consult your investment, legal, tax, accounting and other advisors before investing in the Securities.

Risks Relating to the Securities Generally

- The Stated Payout on the Securities Applies Only at Maturity — You should be willing to hold your Securities to maturity. The stated payout on the Securities is available only if you hold them to maturity. If you are able to sell your Securities prior to maturity in the secondary market, you may have to sell them at a loss relative to your initial investment, irrespective of the performance of the Underlying.
- Your Potential Return on the Securities Is Limited to the Maximum Payment at Maturity per Security — The return potential of the Securities is limited and in no event will the Payment at Maturity exceed the Maximum Payment at Maturity per Security. Accordingly, an investment in the Securities may return less than an instrument directly linked to the negative performance of the Underlying.
- If a Barrier Event Occurs During the Observation Period, You Will Receive the Principal Amount of Your Securities Plus the Conditional Return, Even if the Final Underlying Level Is Less than the Initial Underlying Level — If a Barrier Event occurs during the Observation Period, you will receive an amount in cash at maturity equal to the principal amount of your Securities plus a return equal to the Conditional Return, even if the Final Underlying Level is less than the Initial Underlying Level. Therefore, if a Barrier Event occurs at any point during the term of the Securities, you will not benefit from any absolute value of the Underlying Return and your return on the Securities will be limited to the Conditional Return.
- If the Final Underlying Level Is Equal to or Greater than the Initial Underlying Level, You Will Receive the Principal Amount of Your Securities Plus the Conditional Return, Even if a Barrier Event Has Not Occurred During the Observation Period — If a Barrier Event has not occurred during the Observation Period, if the Final Underlying Level is equal to or greater than the Initial Underlying Level, you will receive an amount in cash at maturity equal to the principal amount of your Securities plus a return equal to the Conditional Return. Therefore, the Securities are designed for investors who believe that a Barrier Event will not occur during the Observation Period and that the Final Underlying Level of the Underlying will be less than the Initial Underlying Level.
- The Securities Provide Bearish Exposure to the Underlying — Unlike a hypothetical direct investment in the Underlying or the stocks comprising the Underlying, which would be positively correlated to the return of the Underlying or its components, your return on the Securities will be limited to the Conditional Return if the Final Underlying Level is equal to or greater than the Initial Underlying Level. Your return on the Securities will be maximized if the level of the Underlying declines during the term of the Securities, so long as a Barrier Event does not occur during the Observation Period.
- No Interest Payments — We will not pay any interest with respect to the Securities.
- An Investment in the Securities Is Subject to Our Credit Risk — The Securities are our unsubordinated, unsecured debt obligations, and are not, either directly or indirectly, an obligation of any third party. Any payment to be made on the Securities, including any repayment of principal at maturity, depends on our ability to satisfy our obligations as they come due. As a result, our actual and perceived creditworthiness may affect the market value of the Securities and, in the event we were to default on our obligations, you may not receive any amounts owed to you under the terms of the Securities and you could lose your entire initial investment.
- Your Return on the Securities May Be Lower than the Return on a Conventional Debt Security of Comparable Maturity — The return that you will receive on the Securities may be less than the return you could earn on other investments. Your return may be less than the return you could earn if you bought a conventional senior interest bearing debt security of ours with the same Maturity Date or if you were to take a short position in the Underlying or the securities included in the Underlying. Your investment may not reflect the full opportunity cost to you when you take into account factors that affect the time value of money.
- No Dividend Payments or Voting Rights — Investing in the Securities is not equivalent to investing directly in any of the component securities of the Underlying. As a holder of the Securities, you will not have voting rights or rights to receive cash dividends or other distributions or other rights that holders of the securities represented by the Underlying would have. The Underlying is a price return index, and the Underlying Return excludes any cash

dividend payments paid on its component stocks.

- The Absolute Return Feature of the Securities Is Not the Same as Taking a Short Position Directly in the Components of the Underlying— Because of the Lower Barrier, you will not benefit from any absolute value of the Underlying Return that exceeds the Maximum Payment at Maturity per Security. Further, even if the Underlying Return is negative and the Final Underlying Level is equal to or greater than the Lower Barrier, the return on the Securities will not reflect the return you would realize if you actually took a short position directly in the components of the Underlying. For example, to maintain a short position in a component of the Underlying, you could receive certain interest payments from the lender.

- The Initial Estimated Value of the Securities Is Less than the Price to the Public — The initial estimated value that is set forth on the cover page of this document, which is less than the public offering price you pay for the Securities, does not represent a minimum price at which we, RBC Capital Markets, LLC ("RBCCM") or any of our other affiliates would be willing to purchase the Securities in any secondary market (if any exists) at any time. If you attempt to sell the Securities prior to maturity, their market value may be lower than the price you paid for them and the initial estimated value. This is due to, among other things, changes in the level of the Underlying, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to the public of the underwriting discount and our estimated profit and the costs relating to our hedging of the Securities. These factors, together with various credit, market and economic factors over the term of the Securities, are expected to reduce the price at which you may be able to sell the Securities in any secondary market and will affect the value of the Securities in complex and unpredictable ways. Assuming no change in market conditions or any other relevant factors, the price, if any, at which you may be able to sell your Securities prior to maturity may be less than the price to public, as any such sale price would not be expected to include the underwriting discount and our estimated profit and the costs relating to our hedging of the Securities. In addition, any price at which you may sell the Securities is likely to reflect customary bid-ask spreads for similar trades. In addition to bid-ask spreads, the value of the Securities determined for any secondary market price is expected to be based on a secondary market rate rather than the internal borrowing rate used to price the Securities and determine the initial estimated value. As a result, the secondary price will be less than if the internal borrowing rate was used. The Securities are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Securities to maturity.

- Our Initial Estimated Value of the Securities Is an Estimate Only, Calculated as of the Time the Terms of the Securities Were Set — The initial estimated value of the Securities is based on the value of our obligation to make the payments on the Securities, together with the mid-market value of the derivative embedded in the terms of the Securities. See "Structuring the Securities" below. Our estimate was based on a variety of assumptions, including our credit spreads, expectations as to dividends, interest rates and volatility, and the expected term of the Securities. These assumptions were based on certain forecasts about future events, which may prove to be incorrect. Other entities may value the Securities or similar securities at a price that is significantly different than we do.

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

¨ Changes Affecting the Underlying — The policies of the index sponsor concerning additions, deletions and substitutions of the stocks included in the Underlying and the manner in which the index sponsor takes account of certain changes affecting those stocks included in the Underlying may affect its level in a manner that is adverse to the interests of holders of the Securities. The policies of the index sponsor with respect to the calculation of the Underlying could also adversely affect its level. The index sponsor may discontinue or suspend calculation or dissemination of the Underlying and has no obligation to consider your interests in the Securities when taking any action regarding the Underlying. Any such actions could have an adverse effect on the value of the Securities and the amount that may be paid at maturity.

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

¨ Potential Conflicts — We and our affiliates play a variety of roles in connection with the issuance of the Securities, including hedging our obligations under the Securities. In performing these duties, the economic interests of the calculation agent and other affiliates of ours are potentially adverse to your interests as an investor in the Securities.

¨ Potentially Inconsistent Research, Opinions or Recommendations by RBCCM, UBS or Their Affiliates — RBCCM, UBS or their affiliates may publish research, express opinions or provide recommendations that are inconsistent with investing in or holding the Securities, and which may be revised at any time. Any such research, opinions or recommendations could affect the level of the Underlying or the equity securities included in the Underlying, and therefore, the market value of the Securities.

¨ You Will Be Required to Include Income on the Securities Over Their Term Based Upon a Comparable Yield, Even Though You Will Not Receive Any Payments Until Maturity — The Securities are considered to be issued with original issue discount. You will be required to include income on the Securities over their term based upon a comparable yield, even though you will not receive any payments until maturity. You are urged to review the section entitled "What Are the Tax Consequences of the Securities? —U.S. Federal Income Tax Consequences" and consult your own tax advisor.

¨ Potential Royal Bank of Canada and UBS Impact on Price — Trading or other transactions by Royal Bank of Canada, UBS and our respective affiliates in the equity securities composing the Underlying or in futures, options, exchange-traded funds or other derivative products on the equity securities included in the Underlying may affect the market value of those equity securities or the level of the Underlying in a manner that is adverse to the interests of the holders of the Securities, and, therefore, the market value of the Securities.

¨ The Probability That a Barrier Event Will Occur, or that the Final Underlying Level of the Underlying Will Be Greater than the Initial Underlying Level on the Final Valuation Date Will Depend on the Volatility of the Underlying — "Volatility" refers to the frequency and magnitude of changes in the level of the Underlying. Greater expected volatility with respect to the Underlying reflects a higher expectation as of the Trade Date that a Barrier Event could occur, or that the Underlying could close above its Initial Value on the Final Valuation Date, resulting in the loss of all or a portion of your investment in the Securities. However, an Underlying's volatility can change significantly over the term of the Securities. The level of the Underlying could rise or fall sharply, which could significantly reduce your return on the Securities.

¨ The Terms of the Securities Were Influenced at Issuance and Their Market Value Prior to Maturity Will Be Influenced by Many Unpredictable Factors — Many economic and market factors influenced the terms of the Securities at issuance and will affect their value prior to maturity. These factors are similar in some ways to those that could affect the value of a combination of instruments that might be used to replicate the payments on the Securities, including a combination of a bond with one or more options or other derivative instruments. For the market value of the Securities, we expect that, generally, the level of the Underlying on any day will affect the value of the Securities more than any other single factor. However, you should not expect the value of the Securities in the secondary market to vary in proportion to changes in the level of the Underlying. The value of the Securities will be affected by a number of other factors that may either offset or magnify each other, including:

- the actual or expected level of the Underlying, including whether a Barrier Event has occurred;
- the actual or expected volatility of the Underlying;
- the time remaining to maturity of the Securities;
- the dividend rates on the securities represented by the Underlying;
- interest and yield rates in the market generally, as well as in each of the markets of the securities represented by the Underlying;
- a variety of economic, financial, political, regulatory or judicial events; and
- our creditworthiness, including actual or anticipated downgrades in our credit ratings.

Some or all of these factors influenced the terms of the Securities at issuance and will also influence the price you will receive if you choose to sell the Securities prior to maturity. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You may have to sell the Securities at a substantial discount from the principal amount if, for example, the level of the Underlying has decreased, but a Barrier Event has not occurred.

Hypothetical Examples and Return Table at Maturity

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

The examples below are provided for illustrative purposes only and are purely hypothetical. They do not purport to be representative of every possible scenario concerning increases or decreases in the levels of the Underlying. We cannot predict the Final Underlying Level of the Underlying. You should not take these examples as an indication or assurance of the expected performance of the Underlying. The examples below illustrate the Payment at Maturity for a $1,000 Security on a hypothetical offering of the Securities, with the following assumptions (amounts may have been rounded for ease of reference):

Principal Amount:	$1,000
Term:	24 months
Conditional Return:	2.00%
Lower Barrier:	64.75% of the Initial Underlying Level
Maximum Payment at Maturity:	$1,352.50 per Security

Example 1 — A Barrier Event has occurred during the Observation Period and the Underlying Return is 20%.

Because a Barrier Event has occurred during the Observation Period, we will pay you an amount in cash per Security at maturity equal to the principal amount plus a return equal to the Conditional Return, calculated as follows:

$1,000 x (1 + 2.00%)

= $1,020 per Security (a 2.00% total return).

Although the level of the Underlying has appreciated from the Initial Underlying Level to the Final Underlying Level, you will not benefit from any appreciation in the level of the Underlying at all and your return is limited to the Conditional Return.

Example 2— A Barrier Event has occurred during the Observation Period and the Underlying Return is -30%.

Because a Barrier Event has occurred during the Observation Period, we will pay you an amount in cash per Security at maturity equal to the principal amount plus a return equal to the Conditional Return, calculated as follows:

$1,000 x (1 + 2.00%)

= $1,020 per Security (a 2.00% total return).

Though the level of the Underlying has depreciated from the Initial Underlying Level to the Final Underlying Level and the Final Underlying Level is equal to or greater than the Lower Barrier, you will not benefit from any decline in the level of the Underlying at all and your return is limited to the Conditional Return.

Example 3— A Barrier Event has occurred during the Observation Period and the Underlying Return is -5%.