ROYAL BANK OF CANADA
Form FWP
February 07, 2018

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

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

Preliminary Terms Supplement Subject to Completion: Dated February 7, 2018 Pricing Supplement Dated February __, 2018 to the Product Prospectus Supplement ERN-EI-1 Dated January 12, 2016, the Prospectus Supplement Dated January 8, 2016, and the Prospectus Dated January 8, 2016	Absolute Return Buffered Enhanced Return Notes Linked to the Lesser Performing of Two Equity Indices, Due August 14, 2023 Royal Bank of Canada

Royal Bank of Canada is offering Absolute Return Buffered Enhanced Return Notes Linked to the Lesser Performing of Two Equity Indices (the "Notes") linked to the lesser performing of two equity indices (each, a "Reference Asset" and collectively, the "Reference Assets"). The Notes offered are senior unsecured obligations of Royal Bank of Canada and will have the terms described in the documents described above, as supplemented or modified by this terms supplement.

Reference Assets	Initial Levels*	Buffer Levels
S&P 500® Index ("SPX")		80.00% of its Initial Level
Dow Jones Industrial Average® ("INDU")		80.00% of its Initial Level

* For each Reference Asset, the Initial Level will be its closing level on the Pricing Date.

The Notes do not guarantee any return of principal at maturity. Any payments on the Notes are subject to our credit risk.

Investing in the Notes involves a number of risks. See "Additional Risk Factors Specific to the Notes" beginning on page PS-4 of the product prospectus supplement dated January 12, 2016, "Risk Factors" beginning on page S-1 of the prospectus supplement dated January 8, 2016, and "Selected Risk Considerations" beginning on page P-7 of this terms supplement.

The Notes will not constitute deposits insured by the Canada Deposit Insurance Corporation, the U.S. Federal Deposit Insurance Corporation or any other Canadian or U.S. government agency or instrumentality.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the Notes or determined that this terms supplement is truthful or complete. Any representation to the contrary is a criminal offense.

Issuer:	Royal Bank of Canada	Stock Exchange Listing:	None
Pricing Date:	February 9, 2018	Principal Amount:	$1,000 per Note
Issue Date:	February 14, 2018	Maturity Date:	August 14, 2023

Valuation Date:	August 9, 2023	Leverage Factor:	[101.00%-111.00%] (to be determined on the Pricing Date)
Initial Level:	For each Reference Asset, its closing level on the Pricing Date.		
Final Level:	For each Reference Asset, its closing level on the Valuation Date.		
Payment at Maturity:	If, on the Valuation Date, the Final Level of the Lesser Performing Index is greater than or equal to its Initial Level, then the investor will receive a return equal to the principal amount multiplied by the product of the Percentage Change (as defined below) of the Lesser Performing Index and the Leverage Factor. If the Final Level of the Lesser Performing Index is less than its Initial Level, but greater than or equal to its Buffer Level (80.00% of its Initial Level), the investor will receive a one-for-one positive return equal to the absolute value of the Percentage Change of the Lesser Performing Index. If the Final Level of the Lesser Performing Index is less than the Buffer Level, you will lose 1% of the principal amount for any decrease in the level of the Lesser Performing Index by more than 20%. An investor could lose some or substantially all of its investment in the Notes.		
Lesser Performing Index:	The Reference Asset which has the lowest Percentage Change.		
Interest Payments:	None.		
CUSIP:	78013XFQ6		

	Per Note	Total
Price to public[(1)]	100.00%	$
Underwriting discounts and commissions[(1)]	3.25%	$
Proceeds to Royal Bank of Canada	96.75%	$

[(1)]Certain dealers who purchase the Notes for sale to certain fee-based advisory accounts may forego some or all of their underwriting discount or selling concessions. The public offering price for investors purchasing the Notes in these accounts may be between $967.50 and $1,000 per $1,000 in principal amount.

The initial estimated value of the Notes as of the date of this terms supplement is $933.66 per $1,000 in principal amount, which is less than the price to public. The final pricing supplement relating to the Notes will set forth our estimate of the initial value of the Notes as of the Pricing Date, which will not be less than $913.66 per $1,000 in principal amount. The actual value of the Notes at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount. We describe our determination of the initial estimated value in more detail below.

If the Notes priced on the date of this terms supplement, RBC Capital Markets, LLC, which we refer to as RBCCM, acting as agent for Royal Bank of Canada, would receive a commission of approximately $32.50 per $1,000 in principal amount of the Notes and would use a portion of that commission to allow selling concessions to other dealers of up to approximately $32.50 per $1,000 in principal amount of the Notes. The other dealers may forgo, in their sole discretion, some or all of their selling concessions. See “Supplemental Plan of Distribution (Conflicts of Interest)” below.

RBC Capital Markets, LLC

Absolute Return Buffered Enhanced Return
Notes Linked to the Lesser Performing of Two
Equity Indices, Due August 14, 2023
Royal Bank of Canada

SUMMARY

The information in this "Summary" section is qualified by the more detailed information set forth in this terms supplement, the product prospectus supplement, the prospectus supplement, and the prospectus.

General:	This terms supplement relates to an offering of Absolute Return Buffered Enhanced Return Notes Linked to the Lesser Performing of Two Equity Indices (the "Notes") linked to the lesser performing of two equity indices (the "Reference Assets").
Issuer:	Royal Bank of Canada ("Royal Bank")
Issue:	Senior Global Medium-Term Notes, Series G
Pricing Date:	February 9, 2018
Issue Date:	February 14, 2018
Term:	Approximately 5.5 years
Denominations:	Minimum denomination of $1,000, and integral multiples of $1,000 thereafter.
Designated Currency:	U.S. Dollars
Valuation Date:	August 9, 2023
Maturity Date:	August 14, 2023
Initial Level:	For each Reference Asset, its closing level on the Pricing Date.
Final Level:	For each Reference Asset, its closing level on the Valuation Date.
Buffer Level:	For each Reference Asset, 80.00% of its Initial Level.
Buffer Amount:	20.00%
Leverage Factor:	[101.00-111.00]%, to be determined on the Pricing Date.
Payment at Maturity:	On the Valuation Date, we will pay you at maturity an amount based on the Final Level of the Lesser Performing Index: · If the Final Level of the Lesser Performing Index is greater than or equal to its Initial Level, then the investor will receive an amount equal to: $1,000 + ($1,000 x Percentage Change of the Lesser Performing Index x Leverage Factor) · If the Final Level of the Lesser Performing Index is less than its Initial Level, but greater than or equal to its Buffer Level, the investor will receive a one-for-one positive return equal to the absolute value of the Percentage Change of the Lesser Performing Index, calculated as follows: $1,000 + [-1 x ($1,000 x Percentage Change of the Lesser Performing Index)] · If the Final Level of the Lesser Performing Index is less than its Buffer Level, then the investor will receive an amount equal to: $1,000 + [$1,000 x (Percentage Change of the Lesser Performing Index + Buffer Amount)] In this case, you will lose up to 80% of the principal amount of the Notes.
Percentage Change:	With respect to each Reference Asset: $\frac{\text{Final Level – Initial Level}}{\text{Initial Level}}$
Lesser Performing Index:	The Reference Asset which has the lowest Percentage Change.
Market Disruption	If a market disruption event occurs on the Valuation Date as to a Reference Asset, the determination of the Final Level of that Reference Asset will be postponed. However, the determination of the

Event:	Final Level of any Reference Asset that is not affected by that market disruption event will not be postponed.
Calculation Agent:	RBC Capital Markets, LLC ("RBCCM")

U.S. Tax Treatment:	By purchasing a Note, each holder agrees (in the absence of a change in law, an administrative determination or a judicial ruling to the contrary) to treat the Note as a pre-paid cash settled derivative contract in respect of the Reference Assets for U.S. federal income tax purposes. However, the U.S. federal income tax consequences of your investment in the Notes are uncertain and the Internal Revenue Service could assert that the Notes should be taxed in a manner that is different from that described in the preceding sentence. Please see the section below, "Supplemental Discussion of U.S. Federal Income Tax Consequences" and the discussion (including the opinion of our counsel Morrison & Foerster LLP) in the product prospectus supplement dated January 12, 2016 under "Supplemental Discussion of U.S. Federal Income Tax Consequences," which apply to the Notes.
Secondary Market:	RBCCM (or one of its affiliates), though not obligated to do so, may maintain a secondary market in the Notes after the Issue Date. The amount that you may receive upon sale of your Notes prior to maturity may be less than the principal amount.
Listing:	The Notes will not be listed on any securities exchange.
Settlement:	DTC global (including through its indirect participants Euroclear and Clearstream, Luxembourg as described under "Description of Debt Securities—Ownership and Book-Entry Issuance" in the prospectus dated January 8, 2016).
Terms Incorporated in the Master Note:	All of the terms appearing above the item captioned "Secondary Market" on the cover page and pages P-2 and P-3 of this terms supplement and the terms appearing under the caption "General Terms of the Notes" in the product prospectus supplement dated January 12, 2016, as modified by this terms supplement.

Absolute Return Buffered Enhanced Return
Notes Linked to the Lesser Performing of Two
Equity Indices, Due August 14, 2023
Royal Bank of Canada

ADDITIONAL TERMS OF YOUR NOTES

You should read this terms supplement together with the prospectus dated January 8, 2016, as supplemented by the prospectus supplement dated January 8, 2016 and the product prospectus supplement dated January 12, 2016, relating to our Senior Global Medium-Term Notes, Series G, of which these Notes are a part. Capitalized terms used but not defined in this terms supplement will have the meanings given to them in the product prospectus supplement. In the event of any conflict, this terms supplement will control. The Notes vary from the terms described in the product prospectus supplement in several important ways. You should read this terms supplement carefully.

This terms supplement, together with the documents listed below, contains the terms of the Notes and supersedes all prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in "Risk Factors" in the prospectus supplement dated January 8, 2016 and "Additional Risk Factors Specific to the Notes" in the product prospectus supplement dated January 12, 2016, as the Notes involve risks not associated with conventional debt securities. We urge you to consult your investment, legal, tax, accounting and other advisors before you invest in the Notes. You may access these documents on the Securities and Exchange Commission (the "SEC") website at www.sec.gov as follows (or if that address has changed, by reviewing our filings for the relevant date on the SEC website):

Prospectus dated January 8, 2016:
http://www.sec.gov/Archives/edgar/data/1000275/000121465916008810/j18160424b3.htm
Prospectus Supplement dated January 8, 2016:
http://www.sec.gov/Archives/edgar/data/1000275/000121465916008811/p14150424b3.htm
Product Prospectus Supplement ERN-EI-1 dated January 12, 2016:
https://www.sec.gov/Archives/edgar/data/1000275/000114036116047560/form424b5.htm

Our Central Index Key, or CIK, on the SEC website is 1000275. As used in this terms supplement, "we," "us," or "our" refers to Royal Bank of Canada.

Royal Bank of Canada has filed a registration statement (including a product prospectus supplement, a prospectus supplement, and a prospectus) with the SEC for the offering to which this terms supplement relates. Before you invest, you should read those documents and the other documents relating to this offering that we have filed with the SEC for more complete information about us and this offering. You may obtain these documents without cost by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, Royal Bank of Canada, any agent or any dealer participating in this offering will arrange to send you the product prospectus supplement, the prospectus supplement and the prospectus if you so request by calling toll-free at 1-877-688-2301.

Absolute Return Buffered Enhanced Return
Notes Linked to the Lesser Performing of Two
Equity Indices, Due August 14, 2023
Royal Bank of Canada

HYPOTHETICAL EXAMPLES

The table set out below is included for illustration purposes only. The table illustrates the hypothetical Redemption Amount of the Notes for a hypothetical range of performance for the Lesser Performing Reference Asset, assuming the following terms:

Hypothetical Initial Level (for each Reference Asset):	1,000.00*
Hypothetical Buffer Level (for each Reference Asset):	800.00, which is 800.00% of the hypothetical Initial Level
Hypothetical Buffer Amount:	20.00%
Hypothetical Leverage Factor:	106.00%, which is the midpoint of the Leverage Factor range of [101.00%-111.00%] (to be determined on the Pricing Date).
Principal Amount:	$1,000 per Note

* The hypothetical Initial Level of 1,000.00 used in the examples below has been chosen for illustrative purposes only and does not represent the actual Initial Level of either Reference Asset. The actual Initial Levels for each Reference Asset will be set forth on the cover page of the final pricing supplement relating to the Notes. We make no representation or warranty as to which of the Reference Assets will be the Lesser Performing Reference Asset. It is possible that the Final Level of each Reference Asset will be less than its Initial Level.

Hypothetical Final Levels are shown in the first column on the left. The second column shows the Redemption Amount for a range of Final Levels of the Lesser Performing Reference Asset on the Valuation Date. The third column shows the Redemption Amount to be paid on the Notes per $1,000 in principal amount.

Hypothetical Final Level of the Lesser Performing Reference Asset	Redemption Amount as Percentage of Principal Amount	Redemption Amount per $1,000 in Principal Amount
1,300.00	131.80%	$1,318.00
1,200.00	121.20%	$1,212.00
1,100.00	110.60%	$1,106.00
1,000.00	100.00%	$1,000.00
900.00	110.00%	$1,100.00
850.00	115.00%	$1,150.00
800.00	120.00%	$1,200.00
799.00	79.99%	$799.90
700.00	90.00%	$900.00
600.00	80.00%	$800.00
500.00	70.00%	$700.00
400.00	60.00%	$600.00
250.00	45.00%	$450.00
0.00	20.00%	$20.00

Absolute Return Buffered Enhanced Return
Notes Linked to the Lesser Performing of Two
Equity Indices, Due August 14, 2023
Royal Bank of Canada

Hypothetical Examples of Amounts Payable at Maturity

The following hypothetical examples illustrate how the payments at maturity set forth in the table above are calculated.

Example 1: The price of the Lesser Performing Reference Asset increases by 10% from the Initial Level of 1,000.00 to its Final Level of 1,100.00. Because the Final Level of the Lesser Performing Reference Asset is greater than the Initial Level, the investor receives at maturity, a cash payment of $1,106.00 per Note, calculated as follows:

$1,000 + ($1,000 x Percentage Change of the Lesser Performing Reference Asset x Leverage Factor)

= $1,000 + ($1,000 x 10% x 106%) = $1,106.00

Example 2: The price of the Lesser Performing Reference Asset decreases by 15% from the Initial Level of 1,000.00 to its Final Level of 850.00. Because the Final Level of the Lesser Performing Reference Asset is less than the Initial Level but greater than its Buffer Level of 800.00, the investor receives at maturity, a positive return equal to the absolute value of the Percentage Change, despite the 15% decline in the share price of the Lesser Performing Reference Asset, calculated as follows:

$1,000 + [-1 x ($1,000 x Percentage Change of the Lesser Performing Reference Asset)]

= $1,000 + [-1 x ($1,000 x -15%)] = $1,000 + $150 = $1,150.00.

Example 3: The price of the Lesser Performing Reference Asset is 400.00 on the Valuation Date, which is less than its Buffer Level of 800.00. Because the Final Level of the Lesser Performing Reference Asset is less than its Buffer Level of 800.00, we will pay only $600.00 for each $1,000 in the principal amount of the Notes, calculated as follows:

Principal Amount + [Principal Amount x (Reference Asset Return of the Lesser Performing Reference Asset + Buffer Amount]))

= $1,000 + [$1,000 x (-60.00% + 20.00%)] = $1,000 - $400.00 = $600.00

* * *

The Payments at Maturity shown above are entirely hypothetical; they are based on prices of the Reference Assets that may not be achieved on the Valuation Date and on assumptions that may prove to be erroneous. The actual market value of your Notes on the Maturity Date or at any other time, including any time you may wish to sell your Notes, may bear little relation to the hypothetical Redemption Amounts shown above, and those amounts should not be viewed as an indication of the financial return on an investment in the Notes or on an investment in the securities included in either Reference Asset.

Absolute Return Buffered Enhanced Return
Notes Linked to the Lesser Performing of Two
Equity Indices, Due August 14, 2023
Royal Bank of Canada

SELECTED RISK CONSIDERATIONS

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the Reference Assets. These risks are explained in more detail in the section "Additional Risk Factors Specific to the Notes" in the product prospectus supplement. In addition to the risks described in the prospectus supplement and the product prospectus supplement, you should consider the following:

- Principal at Risk – Investors in the Notes could lose a substantial portion of their principal amount if there is a decline in the level of the Lesser Performing Index between the Pricing Date and the Valuation Date of more than 20%. You will lose 1% of the principal amount of your Notes for each 1% that the Final Level of the Lesser Performing Index is less than its Initial Level by more than 20%.
- Your Redemption Amount Will Be Determined Solely by Reference to the Lesser Performing Index Even if the Other Reference Asset Performs Better – Your Redemption Amount will be determined solely by reference to the performance of the Lesser Performing Index. Even if the Final Level of the other Reference Asset has increased compared to its Initial Level, or has experienced a decrease that is less than that of the Lesser Performing Index, your return will only be determined by reference to the performance of the Lesser Performing Index, regardless of the performance of the other Reference Asset. The Notes are not linked to a weighted basket, in which the risk may be mitigated and diversified among each of the basket components. For example, in the case of notes linked to a weighted basket, the return would depend on the weighted aggregate performance of the basket components reflected as the basket return. As a result, the depreciation of one basket component could be mitigated by the appreciation of the other basket components, as scaled by the weighting of that basket component. However, in the case of the Notes, the individual performance of each of the Reference Assets would not be combined, and the depreciation of one Reference Asset would not be mitigated by any appreciation of the other Reference Asset. Instead your return will depend solely on the Final Level of the Lesser Performing Index.
- The Notes Do Not Pay Interest and Your Return May Be Lower than the Return on a Conventional Debt Security of Comparable Maturity – You will not receive any interest payments on the Notes as there would be on a conventional fixed-rate or floating-rate debt security having the same maturity. The return that you will receive on the Notes, which could be negative, may be less than the return you could earn on other investments. Even if your return is positive, your return may be less than the return you would earn if you bought a conventional senior interest bearing debt security of Royal Bank.
- Payments on the Notes Are Subject to Our Credit Risk, and Changes in Our Credit Ratings Are Expected to Affect the Market Value of the Notes – The Notes are Royal Bank's senior unsecured debt securities. As a result, your receipt of the Redemption Amount is dependent upon Royal Bank's ability to repay its obligations at that time. This will be the case even if the levels of the Reference Assets increase after the Pricing Date. No assurance can be given as to what our financial condition will be at the maturity of the Notes.
- There May Not Be an Active Trading Market for the Notes – Sales in the Secondary Market May Result in Significant Losses – There may be little or no secondary market for the Notes. The Notes will not be listed on any securities exchange. RBCCM and other affiliates of Royal Bank may make a market for the Notes; however, they are not required to do so. RBCCM or any other affiliate of Royal Bank may stop any market-making activities at any time. Even if a secondary market for the Notes develops, it may not provide significant liquidity or trade at prices advantageous to you. We expect that transaction costs in any secondary market would be high. As a result, the difference between bid and asked prices for your Notes in any secondary market could be substantial.
- Owning the Notes Is Not the Same as Owning the Securities Represented by the Reference Assets — The return on your Notes is unlikely to reflect the return you would realize if you actually owned the securities represented by the Reference Assets. For instance, you will not receive or be entitled to receive any dividend payments or other

distributions on those securities during the term of your Notes. As an owner of the Notes, you will not have voting rights or any other rights that holders of the Reference Assets may have. Any positive return on the Notes may be less than the potential positive return on the securities included in the Reference Assets.

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

- The Initial Estimated Value of the Notes on the Cover Page of this Terms Supplement and that We Will Provide in the Final Pricing Supplement Are Estimates Only, Calculated as of the Time the Terms of the Notes Are Set — The initial estimated value of the Notes will be based on the value of our obligation to make the payments on the Notes, together with the mid-market value of the derivative embedded in the terms of the Notes. See “Structuring the Notes” below. Our estimates are based on a variety of assumptions, including our credit spreads, expectations as to dividends, interest rates and volatility, and the expected term of the Notes. These assumptions are based on certain forecasts about future events, which may prove to be incorrect. Other entities may value the Notes or similar securities at a price that is significantly different than we do.

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

- Inconsistent Research — Royal Bank or its affiliates may issue research reports on securities that are, or may become, components of the Reference Assets. We may also publish research from time to time on financial markets and other matters that may influence the levels of the Reference Assets or the value of the Notes, or express opinions or provide recommendations that may be inconsistent with purchasing or holding the Notes or with the investment view implicit in the Notes or the Reference Assets. You should make your own independent investigation of the merits of investing in the Notes and the Reference Assets.
- Market Disruption Events and Adjustments – The Redemption Amount and the Valuation Date are subject to adjustment as to each Reference Asset as described in the product prospectus supplement. For a description of what constitutes a market disruption event as well as the consequences of that market disruption event, see “General Terms of the Notes—Market Disruption Events” in the product prospectus supplement.

Absolute Return Buffered Enhanced Return
Notes Linked to the Lesser Performing of Two
Equity Indices, Due August 14, 2023
Royal Bank of Canada

INFORMATION REGARDING THE REFERENCE ASSETS

All disclosures contained in this terms supplement regarding the Reference Assets, including, without limitation, their make up, method of calculation, and changes in their components, have been derived from publicly available sources. The information reflects the policies of, and is subject to change by the applicable index sponsor. Each of these sponsors has no obligation to continue to publish, and may discontinue publication of, the applicable Reference Asset. The consequences of an index sponsor discontinuing publication of a Reference Asset are discussed in the section of the product prospectus supplement entitled "General Terms of the Notes— Unavailability of the Level of the Reference Asset." Neither we nor RBCCM accepts any responsibility for the calculation, maintenance or publication of either Reference Asset or any successor index.

We obtained the information regarding the historical performance of each Reference Asset set forth below from Bloomberg Financial Markets.

S&P 500® Index ("SPX")

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

S&P Dow Jones Indices LLC ("S&P") calculates the SPX by reference to the prices of the constituent stocks of the SPX without taking account of the value of dividends paid on those stocks. As a result, the return on the Notes will not reflect the return you would realize if you actually owned the SPX constituent stocks and received the dividends paid on those stocks.

Effective with the September 2015 rebalance, consolidated share class lines will no longer be included in the SPX. Each share class line will be subject to public float and liquidity criteria individually, but the company's total market capitalization will be used to evaluate each share class line. This may result in one listed share class line of a company being included in the SPX while a second listed share class line of the same company is excluded.

Computation of the SPX

While S&P currently employs the following methodology to calculate the SPX, no assurance can be given that S&P will not modify or change this methodology in a manner that may affect the Payment at Maturity.

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

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

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

Treasury stock, stock options, equity participation units, warrants, preferred stock, convertible stock, and rights are not part of the float. Shares held in a trust to allow investors in countries outside the country of domicile, such as depositary shares and Canadian exchangeable shares are normally part of the float unless those shares form a control block.

For each stock, an investable weight factor ("IWF") is calculated by dividing the available float shares by the total shares outstanding. Available float shares are defined as the total shares outstanding less shares held by control holders. This calculation is subject to a 5% minimum threshold for control blocks. For example, if a company's officers and directors hold 3% of the company's shares, and no other control group holds 5% of the company's shares, S&P would assign that company an IWF of 1.00, as no control group meets the 5% threshold. However, if a company's officers and directors hold 3% of the company's shares and another control group holds 20% of the company's shares, S&P would assign an IWF of 0.77, reflecting the fact that 23% of the company's outstanding shares are considered to be held for control. As of July 31, 2017, companies with multiple share class lines are no longer eligible for inclusion in the SPX. Constituents of the SPX prior to July 31, 2017 with multiple share class lines will be grandfathered in and continue to be included in the SPX. If a constituent company of the SPX reorganizes into a multiple share class line structure, that company will remain in the SPX at the discretion of the S&P Index Committee in order to minimize turnover

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

Index Maintenance

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

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

Changes in a company's total shares outstanding of 5% or more due to public offerings are made as soon as reasonably possible. Other changes of 5% or more (for example, due to tender offers, Dutch auctions, voluntary exchange offers, company stock repurchases, private placements, acquisitions of private companies or non-index companies that do not trade on a major exchange, redemptions, exercise of options, warrants, conversion of preferred stock, notes, debt, equity participations, at-the-market stock offerings or other recapitalizations) are made weekly, and are generally announced on Fridays for implementation after the close of trading the following Friday (one week later). If a 5% or more share change causes a company's IWF to change by five percentage points or more, the IWF is updated at the same time as the share change. IWF changes resulting from partial tender offers are considered on a case-by-case basis.

License Agreement

S&P® is a registered trademark of Standard & Poor's Financial Services LLC and Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"). These trademarks have been licensed for use by S&P. "Standard & Poor's®", "S&P 500®" and "S&P®" are trademarks of Standard & Poor's Financial Services LLC. These trademarks have been sublicensed for certain purposes by us. The SPX is a product of S&P and/or its affiliates and has been licensed for use by us.

The Notes are not sponsored, endorsed, sold or promoted by S&P Dow Jones Indices LLC, Standard & Poor's Financial Services LLC or any of their respective affiliates (collectively, "S&P Dow Jones Indices"). S&P Dow Jones Indices make no representation or warranty, express or implied, to the holders of the Notes or any member of the public regarding the advisability of investing in securities generally or in the Notes particularly or the ability of the SPX to track general market performance. S&P Dow Jones Indices' only relationship to us with respect to the SPX is the licensing of the SPX and certain trademarks, service marks and/or trade names of S&P Dow Jones Indices and/or its third party licensors. The SPX is determined, composed and calculated by S&P Dow Jones Indices without regard to us or the Notes. S&P Dow Jones Indices have no obligation to take our needs or the needs of holders of the Notes into consideration in determining, composing or calculating the SPX. S&P Dow Jones Indices are not responsible for and have not participated in the determination of the prices, and amount of the Notes or the timing of the issuance or sale of the Notes or in the determination or calculation of the equation by which the Notes are to be converted into cash. S&P Dow Jones Indices have no obligation or liability in connection with the administration, marketing or trading of the Notes. There is no assurance that investment products based on the SPX will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC and its subsidiaries are not investment advisors. Inclusion of a security or futures contract within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security or futures contract, nor is it considered to be investment advice. Notwithstanding the foregoing, CME Group Inc. and its affiliates may independently issue and/or sponsor financial products unrelated to the Notes currently being issued by us, but which may be similar to and competitive with the Notes. In addition, CME Group Inc. and its affiliates may trade financial products which are linked to the performance of the SPX. It is possible that this trading activity will affect the value of the Notes.

S&P DOW JONES INDICES DO NOT GUARANTEE THE ADEQUACY, ACCURACY, TIMELINESS AND/OR THE COMPLETENESS OF THE SPX OR ANY DATA RELATED THERETO OR ANY COMMUNICATION, INCLUDING BUT NOT LIMITED TO, ORAL OR WRITTEN COMMUNICATION (INCLUDING ELECTRONIC COMMUNICATIONS) WITH RESPECT THERETO. S&P DOW JONES INDICES SHALL NOT BE SUBJECT TO ANY DAMAGES OR LIABILITY FOR ANY ERRORS, OMISSIONS, OR DELAYS THEREIN. S&P DOW JONES INDICES MAKE NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE OR AS TO RESULTS TO BE OBTAINED BY US, HOLDERS OF THE NOTES, OR ANY OTHER PERSON OR ENTITY FROM THE USE OF THE SPX OR WITH RESPECT TO ANY DATA RELATED THERETO. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT WHATSOEVER SHALL S&P DOW JONES INDICES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, TRADING LOSSES, LOST TIME OR GOODWILL, EVEN IF THEY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE. THERE ARE NO THIRD PARTY BENEFICIARIES OF ANY AGREEMENTS OR ARRANGEMENTS BETWEEN S&P DOW JONES INDICES AND US, OTHER THAN THE LICENSORS OF S&P DOW JONES INDICES.

Absolute Return Buffered Enhanced Return
Notes Linked to the Lesser Performing of Two
Equity Indices, Due August 14, 2023
Royal Bank of Canada

Historical Information

The graph below sets forth the information relating to the historical performance of the SPX. In addition, below the graph is a table setting forth the intra-day high, intra-day low and period-end closing levels of the SPX. The information provided in this table is for the four calendar quarters of 2013 through 2017, and for the period from January 1, 2018 through February 5, 2018.

We obtained the information regarding the historical performance of the SPX in the chart below from Bloomberg Financial Markets. We have not independently verified the accuracy or completeness of the information obtained from Bloomberg Financial Markets. The historical performance of the SPX should not be taken as an indication of its future performance, and no assurance can be given as to the Final Level of the SPX. We cannot give you assurance that the performance of the SPX will result in any positive return on your initial investment.

S&P 500® Index ("SPX")

Period-Start Date	Period-End Date	High Intra-Day Level of this Reference Asset	Low Intra-Day Level of this Reference Asset	Period-End Closing Level of this Reference Asset
1/1/2013	3/31/2013	1,570.28	1,426.19	1,569.19
4/1/2013	6/30/2013	1,687.18	1,536.03	1,606.28
7/1/2013	9/30/2013			