ROYAL BANK OF CANADA Form FWP November 29, 2017

RBC Capital Markets® Filed Pursuant to Rule 433
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The information in this preliminary terms supplement is not complete and may be changed.

**Preliminary Terms** Supplement Subject to Completion: Dated November 29, 2017 **Pricing Supplement** Dated December \_\_\_\_, Interest-Bearing Buffered Absolute 2017 to the Product Return Notes Linked to the S&P 500® **Prospectus Supplement** ERN-EI-1 Dated January Royal Bank of Canada Index, due July 2, 2020 12, 2016, **Prospectus Supplement** Dated January 8, 2016, and Prospectus Dated January 8, 2016

Royal Bank of Canada is offering the Interest-Bearing Buffered Absolute Return Notes (the "Notes") linked to the performance of the S&P 500<sup>®</sup> Index (the "Reference Asset").

The CUSIP number for the Notes is 78013XBM9. Interest is payable monthly at the rate of [1.00%-1.55%] per annum (to be determined on the pricing date) (i.e., approximately [0.0833%-0.1292%] of the principal amount per interest payment date) on the dates set forth below.

If the Final Level of the Reference Asset is greater than or equal to the Initial Level, the Notes will pay only the principal amount at maturity, together with the final interest payment.

If the level of the Reference Asset decreases from the Initial Level to the Final Level:

if the Final Level is greater than or equal to 70% of the Initial Level (the "Buffer Level"), the Notes will provide a positive return equal to the percentage by which the level of the Index has decreased as of the Valuation Date; or if the Final Level is less than the Buffer Level, the Notes will provide a negative return that is equal to the percentage decrease in the level of the Reference Asset below the Buffer Level.

Investors may lose a substantial portion of the principal amount of the Notes. All payments on the Notes are subject to our credit risk. The Notes will not be listed on any securities exchange.

Issue Date: December 29, 2017 Maturity Date: July 2, 2020

Investing in the Notes involves a number of risks. See "Risk Factors" beginning on page S-1 of the prospectus supplement dated January 8, 2016, "Additional Risk Factors Specific to the Notes" beginning on page PS-4 of the product prospectus supplement dated January 12, 2016, and "Selected Risk Considerations" on page P-6 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 these securities or determined that this terms supplement is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Note	<u>Total</u>
Price to public <sup>(1)</sup>	100%	\$
Underwriting discounts and commissions <sup>(1)</sup>	0.25%	\$
Proceeds to Royal Bank of Canada	99.75%	\$

<sup>(1)</sup> 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 \$997.50 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 \$956.80 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 \$936.80 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 \$2.50 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 \$2.50 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

Interest-Bearing Buffered Absolute Return Notes Linked to the S&P 500® Index, due July 2, 2020

#### **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.

Issuer: Royal Bank of Canada ("Royal Bank") Issue: Senior Global Medium-Term Notes, Series G Underwriter: RBC Capital Markets, LLC ("RBCCM")

Reference

S&P 500® Index

Asset: Bloomberg

**SPX** Ticker:

Currency: U.S. Dollars

Minimum

\$1,000 and minimum denominations of \$1,000 in excess thereof

Investment:

Pricing Date: December 27, 2017 Issue Date: December 29, 2017 CUSIP: 78013XBM9

Valuation

June 29, 2020 Date:

[1.00%-1.55%] per annum (to be determined on the pricing date) ([0.0833%-0.1292%] of the principal

Interest Rate: amount each month). Accordingly, each monthly interest payment will equal [\$0.833 - \$1.292] for

each \$1,000 in principal amount.

Interest will be payable on January 29, 2018, February 28, 2018, March 29, 2018, April 30, 2018, May 29, 2018, June 29, 2018, July 30, 2018, August 29, 2018, September 28, 2018, October 29, 2018,

November 29, 2018, December 31, 2018, January 29, 2019, February 28, 2019, March 29, 2019, April Interest 29, 2019, May 29, 2019, June 28, 2019, July 29, 2019, August 29, 2019, September 30, 2019, October

Payment 29, 2019, November 29, 2019, December 30, 2019, January 29, 2020, February 28, 2020, March 30, Dates: 2020, April 29, 2020, May 29, 2020, and the Maturity Date. If any such date is not a business day, the

payment will be postponed to the next business day, and no additional interest will be payable as a

result of that postponement.

The record date for each scheduled interest payment date will be the date one business day prior to that

Record Dates: date; provided, however, the final interest payment will be made to the person to whom the payment at

maturity will be payable.

If the Final Level is greater than the Initial Level (that is, the Percentage Change is positive), then the Payment at Maturity (if investor will receive \$1,000 per \$1,000 principal amount per Note (together with the final interest payment). Accordingly, if the level of the Reference Asset increases over the term of the Notes, your held to

return will be limited to the periodic interest payments. maturity):

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Interest-Bearing Buffered Absolute Return Notes Linked to the S&P 500<sup>®</sup> Index. due July 2, 2020

> If the Final Level is less than or equal to the Initial Level, but is greater than or equal to the Buffer Level (that is, the Percentage Change is between 0% and -30%), then the investor will receive an amount per \$1,000 principal amount per Note equal to:

Principal Amount + [-1 x (Principal Amount x Percentage Change)]

In this case, the return on the Notes will be positive, even though the Percentage Change is negative. If the Final Level is less than the Buffer Level (that is, the Percentage Change is between -30.01% and -100%), then the investor will receive an amount per \$1,000 principal amount per Note equal to:

Principal Amount + [Principal Amount x (Percentage Change + Buffer Amount)]

In this case, the payment on the Notes will be less than the principal amount, and you will lose up to 70% of the principal amount.

Percentage

The Percentage Change, expressed as a percentage, is calculated using the following formula: Change:

Initial Level: The closing level of the Reference Asset on the Pricing Date.

Final Level: The closing level of the Reference Asset on the Valuation Date.

Buffer

70% of the Initial Level

Level:

Buffer Amount:

30%

**Maturity** 

July 2, 2020, subject to extension for market and other disruptions, as described in the product

Date:

prospectus supplement dated January 12, 2016. Approximately two (2) years and six (6) months

Term:

Principal at The Notes are NOT principal protected. You will lose up to 70% of your principal amount at maturity if

Risk:

the Final Level is less than the Buffer Level.

Calculation

**RBCCM** 

Agent:

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

income-bearing derivative contract for U.S. federal income tax purposes. However, the U.S. federal

U.S. Tax Treatment:

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 under "Supplemental Discussion of U.S. Federal

Income Tax Consequences," which applies 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 of your Notes.

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Interest-Bearing Buffered Absolute Return Notes Linked to the S&P 500® Index, due July 2, 2020

Listing: The Notes will not be listed on any securities exchange.

Clearance and Section of Debt Securities—Ownership and Book-Entry Issuance" in the prospectus

Settlement: dated January 8, 2016).

Terms Incorporated in

Incorporated in the Master Note:

All of the terms appearing above the item captioned "Secondary Market" on 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.

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### 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.

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#### HYPOTHETICAL RETURNS

The examples set out below are included for illustration purposes only. The hypothetical Percentage Changes of the Reference Asset used to illustrate the calculation of the Payment at Maturity (rounded to two decimal places) are not estimates or forecasts of the Initial Level, the Final Level or the level of the Reference Asset on any trading day prior to the Maturity Date. All examples are based on the Buffer Level of 70% of the Initial Level, that a holder purchased Notes with an aggregate principal amount of \$1,000, and that no market disruption event occurs on the Valuation Date.

In each of the examples below, for each \$1,000 in principal amount, the final interest payment will also be payable at maturity.

Calculation of the Payment

Example  $1\frac{\text{at }}{R}$  Maturity where the

Percentage Change is

positive.

Percentage Change: 10% Payment at Maturity: \$1,000 In this case, on a \$1,000 investment, a 10%

Percentage Change results in a Payment at Maturity of the principal amount of \$1,000.

Example  $2\frac{\text{Calculation of the Payment at Maturity where the Percentage Change is negative, but}{\text{the Final Level is greater than the Buffer Level.}}$ 

Percentage Change: -10%

Payment at Maturity:  $\$1,000 + [-1 \times (\$1,000 \times -10\%)] = \$1,000 + \$100 = \$1,100.00$ In this case, on a \$1,000 investment, a -10% Percentage Change results in a Payment at Maturity of \$1,100, a 10% return on the Notes.

In this case, even though the Percentage Change is negative, you will receive a positive return equal to the absolute value of the Percentage Change.

Example 3—Calculation of the Payment at Maturity where the Percentage Change is negative, and the Final Level is less than the Buffer Level.

Percentage Change: -40%

Payment at Maturity:  $\$1,000 + (\$1,000 \times -40\% + 30\%) = \$1,000 - \$100 = \$900$  In this case, on a \$1,000 investment, a -40% Percentage Change results in a

Payment at Maturity of \$900, a -10% return on the Notes.

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#### SELECTED RISK CONSIDERATIONS

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the Reference Asset. These risks are explained in more detail in the section "Additional Risk Factors Specific to the Notes," beginning on page PS-4 of 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 will lose up to 70% of their principal amount if the Final Level is less than the Buffer Level. In such a case, you will lose 1% of the principal amount of your Notes for each 1% that the Final Level is less than the Initial Level by more than 30%. Even with the periodic interest payments, you may incur a loss on your investment.

Your Return on the Notes May Be Lower than the Return on a Conventional Debt Security of Comparable 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. Where the Percentage Change is positive, you will not receive a payment at maturity with a value greater than the principal amount plus the final interest payment. Even if your return on the Notes 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 each interest payment and the amount due on the maturity date is dependent upon Royal Bank's ability to repay its obligations on the applicable payment date. This will be the case whether the level of the Reference Asset increases or decreases after the Pricing Date. No assurance can be given as to what our financial condition will be during the term 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.

You Will Not Have Any Rights to the Securities Included in the Reference Asset – As a holder of the Notes, you will not have voting rights or rights to receive cash dividends or other distributions or other rights that holders of securities included in the Reference Asset would have. The Final Level will not reflect any dividends paid on the securities included in the Reference Asset, and accordingly, any positive return on the Notes may be less than the potential positive return on those securities.

•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 level of the Reference Asset, 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

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discount and the hedging costs relating to the Notes. In addition to bid-ask spreads, the value of the Notes determined 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 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.

Market Disruption Events and Adjustments – The Payment at Maturity and the Valuation Date are subject to adjustment 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.

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### INFORMATION REGARDING THE REFERENCE ASSET

All disclosures contained in this terms supplement regarding the Reference Asset, including, without limitation, its make up, method of calculation, and changes in its components, have been derived from publicly available sources. The information reflects the policies of, and is subject to change by, S&P Dow Jones Indices LLC ("S&P"). S&P, which owns the copyright and all other rights to the Reference Asset, has no obligation to continue to publish, and may discontinue publication of, the Reference Asset. The consequences of S&P discontinuing publication of the 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 on a Valuation Date." Neither we nor RBCCM accepts any responsibility for the calculation, maintenance or publication of the Reference Asset or any successor index. The Reference Asset is intended to provide an indication of the pattern of common stock price movement. The calculation of the level of the Reference Asset 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 calculates the Reference Asset by reference to the prices of the constituent stocks of the Reference Asset without taking account of the value of dividends paid on those stocks. As a result, the return on the Notes will not reflect the

S&P calculates the Reference Asset by reference to the prices of the constituent stocks of the Reference Asset 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 Reference Asset 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 Reference Asset. 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 Reference Asset while a second listed share class line of the same company is excluded.

### Computation of the Reference Asset

While S&P currently employs the following methodology to calculate the Reference Asset, 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 Reference Asset 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 Reference Asset halfway from a market capitalization weighted formula to a float-adjusted formula, before moving the Reference Asset to full float adjustment on September 16, 2005. S&P's criteria for selecting stocks for the Reference Asset did not change with the shift to float adjustment. However, the adjustment affects each company's weight in the Reference Asset.

Under float adjustment, the share counts used in calculating the Reference Asset 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 Reference Asset. 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.

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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 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 Reference Asset. Constituents of the Reference Asset prior to July 31, 2017 with multiple share class lines will be grandfathered in and continue to be included in the Reference Asset. If a constituent company of the Reference Asset reorganizes into a multiple share class line structure, that company will remain in the Reference Asset at the discretion of the S&P Index Committee in order to minimize turnover.

The Reference Asset is calculated using a base-weighted aggregate methodology. The level of the Reference Asset 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 Reference Asset 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 Reference Asset, it serves as a link to the original base period level of the Reference Asset. The index divisor keeps the Reference Asset comparable over time and is the manipulation point for all adjustments to the Reference Asset, 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 Reference Asset, and do not require index divisor adjustments.

To prevent the level of the Reference Asset from changing due to corporate actions, corporate actions which affect the total market value of the Reference Asset require an index divisor adjustment. By adjusting the index divisor for the change in market value, the level of the Reference Asset remains constant and does not reflect the corporate actions of individual companies in the Reference Asset. Index divisor adjustments are made after the close of trading and after the calculation of the Reference Asset 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 Jone® 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 560 and "S&P" are trademarks of Standard & Poor's Financial Services LLC. These trademarks have been sublicensed for certain purposes by us. The Reference Asset 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

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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 Reference Asset to track general market performance. S&P Dow Jones Indices' only relationship to us with respect to the Reference Asset is the licensing of the Reference Asset and certain trademarks, service marks and/or trade names of S&P Dow Jones Indices and/or its third party licensors. The Reference Asset 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 Reference Asset. 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 Reference Asset 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 Reference Asset. 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 REFERENCE ASSET 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 REFERENCE ASSET 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.

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#### **Historical Information**

The graph below sets forth the information relating to the historical performance of the Reference Asset. In addition, below the graph is a table setting forth the intra-day high, intra-day low and period-end closing levels of the Reference Asset. The information provided in this table is for the four calendar quarters of 2013 through 2016, the first, second, and third calendar quarters of 2017, and for the period from October 1, 2017 through November 28, 2017. We obtained the information regarding the historical performance of the Reference Asset 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 Reference Asset should not be taken as an indication of its future performance, and no assurance can be given as to the Final Level of the Reference Asset. We cannot give you assurance that the performance of the Reference Asset 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 Low Intra-Day Level Period-End Closing Level

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	1,729.86	1,604.57	1,681.55
10/1/2013	12/31/2013	1,849.44	1,646.47	1,848.36
1/1/2014	3/31/2014	1,883.97	1,737.92	1,872.34
4/1/2014	6/30/2014	1,968.17	1,814.36	1,960.23
7/1/2014	9/30/2014	2,019.26	1,904.78	1,972.29
10/1/2014	12/31/2014	2,093.55	1,820.66	2,058.90
1/1/2015	3/31/2015	2,119.59	1,980.90	2,067.89
4/1/2015	6/30/2015	2,134.72	2,048.38	2,063.11
7/1/2015	9/30/2015	2,132.82	1,867.01	1,920.03
10/1/2015	12/31/2015	2,116.48	1,893.70	2,043.94
1/1/2016	3/31/2016	2,072.21	1,810.10	2,059.74
4/1/2016	6/30/2016	2,120.55	1,991.68	2,098.86
7/1/2016	9/30/2016	2,193.81	2,074.02	2,168.27
10/1/2016	12/31/2016	2,277.53	2,083.79	2,238.83
1/1/2017	3/31/2017	2,400.98	2,245.13	2,362.72
4/1/2017	6/30/2017	2,453.82	2,328.95	2,423.41
7/1/2017	9/29/2017	2,519.44	2,407.70	2,519.36
10/1/2017	11/28/2017	2,627.69	2,520.40	2,627.04

PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.

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### SUPPLEMENTAL DISCUSSION OF U.S. FEDERAL INCOME TAX CONSEQUENCES

The following is a general description of the material U.S. tax considerations relating to the Notes. It does not purport to be a complete analysis of all tax considerations relating to the Notes. Prospective purchasers of the Notes should consult their tax advisors as to the consequences under the tax laws of the country of which they are resident for tax purposes and the tax laws of the U.S. of acquiring, holding and disposing of the Notes and receiving payments under the Notes. This summary is based upon the law as in effect on the date of this document and is subject to any change in law that may take effect after such date.

The following section supplements the discussion of U.S. federal income taxation in the accompanying prospectus and prospectus supplement and it supersedes the discussion of U.S. federal income taxation in the accompanying product prospectus supplement. It applies only to those holders who are not excluded from the discussion of U.S. federal income taxation in the accompanying prospectus. This discussion applies only to holders that will purchase the Notes upon original issuance and will hold the Notes as capital assets for U.S. federal income tax purposes. In addition, the discussion below assumes that an investor in the Notes will be subject to a significant risk that it will lose a significant amount of its investment in the Notes.

You should consult your tax advisor concerning the U.S. federal income tax and other tax consequences of your investment in the Notes in your particular circumstances, including the application of state, local or other tax laws and the possible effects of changes in federal or other tax laws.

NO STATUTORY, JUDICIAL OR ADMINISTRATIVE AUTHORITY DIRECTLY DISCUSSES HOW THE NOTES SHOULD BE TREATED FOR U.S. FEDERAL INCOME TAX PURPOSES. AS A RESULT, THE U.S. FEDERAL INCOME TAX CONSEQUENCES OF AN INVESTMENT IN THE NOTES ARE UNCERTAIN. BECAUSE OF THE UNCERTAINTY, YOU SHOULD CONSULT YOUR TAX ADVISOR IN DETERMINING THE U.S. FEDERAL INCOME TAX AND OTHER TAX CONSEQUENCES OF YOUR INVESTMENT IN THE NOTES, INCLUDING THE APPLICATION OF STATE, LOCAL OR OTHER TAX LAWS AND THE POSSIBLE EFFECTS OF CHANGES IN FEDERAL OR OTHER TAX LAWS.

We will not attempt to ascertain whether the issuer of any of the component stocks included in the Reference Asset would be treated as a "passive foreign investment company" within the meaning of Section 1297 of the Code, or a "U.S. real property holding corporation," within the meaning of Section 897 of the Code. If the issuer of one or more of such stocks were so treated