

ROYAL BANK OF CANADA
 Form FWP
 January 30, 2019

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 January 30, 2019

Pricing Supplement

Dated January __, 2019 \$ _____

to the Notes Linked to a Basket of Equity Indices, due February 28, 2025

Product Prospectus
 Supplement ERN-EI-1,
 Prospectus Supplement,
 and Prospectus, each
 Dated September 7,
 2018

Royal Bank of Canada

Royal Bank of Canada is offering the notes (the “Notes”) linked to the performance of an equally weighted basket of equity indices (the “Basket”) comprised of the S&P 500 Index (the “SPX”), the Russell 2000 Index (“RTY”) and the EURO STOXX 50® Index (the “SX5E”).

The CUSIP number for the Notes is 78013XYA0. The Notes do not pay interest.

The Notes provide a one-for-one positive return if the value of the Basket increases from the Trade Date to the Valuation Date. However, if the value of the Basket is unchanged or decreases, investors will receive only their principal amount at maturity. Any payments on the Notes are subject to our credit risk.

The Notes will not be listed on any securities exchange.

Issue Date: February 28, 2019

Maturity Date: February 28, 2025

Investing in the Notes involves a number of risks. See “Selected Risk Considerations” beginning on page P-6 of this terms supplement, “Additional Risk Factors Specific to the Notes” beginning on page PS-4 of the product prospectus supplement dated September 7, 2018 and “Risk Factors” beginning on page S-1 of the prospectus supplement dated September 7, 2018.

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. The Notes are not subject to conversion into our common shares under subsection 39.2(2.3) of the Canada Deposit Insurance Corporation Act.

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.

	<u>Per Note</u>	<u>Total</u>
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 \$945.82 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 Trade Date, which will not be less than \$925.82 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.

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Notes Linked to a Basket of Indices

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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”)

Underwriter: RBC Capital Markets, LLC (“RBCCM”)

Reference Asset: The Notes are linked to the value of an equally weighted basket (the “Basket”) of three equity indices (each, a “Basket Component,” collectively, the “Basket Components”). The Basket Components and their respective Component Weights are indicated in the table below.

Currency: U.S. Dollars

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

CUSIP: 78013XYA0

Trade Date (Pricing Date): February 25, 2019

Issue Date: February 28, 2019

Valuation Date: February 25, 2025

Maturity Date: February 28, 2025

Payment at Maturity (if held to maturity): If, on the Valuation Date, the Percentage Change is positive, then the investor will receive an amount per \$1,000 principal amount per Note equal to:
Principal Amount + (Principal Amount x Percentage Change)

If, on the Valuation Date, the Percentage Change is less than or equal to 0%, then the investor will receive a cash payment equal to the principal amount.

Please note that you will only receive your principal amount if you hold the Notes to maturity. If you sell the Notes prior to maturity, your sale price could be significantly less than the principal amount.

Percentage Change: The Percentage Change, expressed as a percentage and rounded to two decimal places, will be equal to the sum of the Weighted Component Changes. The Weighted Component Change for each Basket Component will be determined as follows:
Component Weight x

Initial Level: With respect to each Basket Component, its closing level on the Trade Date.

Final Level: With respect to each Basket Component, its closing level on the Valuation Date.

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Notes Linked to a Basket of Indices

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	Basket Component	Bloomberg Ticker	Component Weight	Initial Level*
The Basket:	S&P 500® Index	SPX	1/3	
	Russell 2000® Index	RTY	1/3	
	EURO STOXX 50® Index	SX5E	1/3	

* The Initial Level for each Basket Component will be its closing level on the Trade Date.

Calculation Agent: RBCCM

U.S. Tax Treatment: We intend to take the position that the Notes will be treated as debt instruments subject to the special tax rules governing contingent payment debt instruments for U.S. federal income tax purposes. Please see the section below, “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 substantially less than the principal amount of your Notes.

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

Clearance and 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 September 7, 2018).

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 September 7, 2018, 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 September 7, 2018, as supplemented by the prospectus supplement dated September 7, 2018 and the product prospectus supplement dated September 7, 2018, relating to our Senior Global Medium-Term Notes, Series H, 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 September 7, 2018 and “Additional Risk Factors Specific to the Notes” in the product prospectus supplement dated September 7, 2018, 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 September 7, 2018:

<https://www.sec.gov/Archives/edgar/data/1000275/000121465918005973/196181424b3.htm>

Prospectus Supplement dated September 7, 2018:

<https://www.sec.gov/Archives/edgar/data/1000275/000121465918005975/f97180424b3.htm>

Product Prospectus Supplement ERN-EI-1 dated September 7, 2018:

<https://www.sec.gov/Archives/edgar/data/1000275/000114036118038044/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 Basket used to illustrate the calculation of the Payment at Maturity are not estimates or forecasts of the level of any Basket Component on any trading day prior to the Maturity Date. All examples assume that a holder purchased Notes with an aggregate principal amount of \$1,000 and that no market disruption event occurs on the Valuation Date.

Example 1 Calculation of the Payment at Maturity where the Percentage Change is positive.

Percentage Change: 5%

Payment at Maturity: $\$1,000 + (\$1,000 \times 5\%) = \$1,000 + \$50.00 = \$1,050.00$

On a \$1,000 investment, a 5% Percentage Change results in a Payment at Maturity of \$1,050.00, a 5% return on the Notes.

Example 2 Calculation of the Payment at Maturity where the Percentage Change is negative.

Percentage Change: -10%

In this case, even though the Percentage Change is negative, you will receive the principal amount of your Notes at maturity.

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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 any of the securities included in any Basket Component. 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:

You May Not Earn a Return on Your Investment — The payment you will receive at maturity will depend on whether the value of the Basket increases from the Trade Date to the Valuation Date. If the value of the Basket decreases from the Trade Date to the Valuation Date (or if its value is unchanged), you will not receive any positive return on the Notes and you will only receive the principal amount.

The Notes Do Not Pay Interest and Your Return May Be Lower than the Return on a Conventional Debt Security of Comparable Maturity — There will be no periodic 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 zero, 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. As a result, your investment in the Notes may not reflect the full opportunity cost to you when you consider factors, such as inflation, that affect the time value of money.

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 amount due on the Maturity Date is dependent upon Royal Bank’s ability to repay its obligations at that time. This will be the case even if the value of the Basket increases after the Trade 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. The stated payment on the Notes, including the potential repayment of principal, only applies if you hold the Notes to maturity. Sales prior to maturity could result in a loss on your investment.

You Will Not Have Any Rights to the Securities Included in the Basket Components — 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 a Basket Component would have. The Final Levels of the Basket Components will not reflect any dividends paid on the securities included in the Basket Components, 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 value of the Basket, 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

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

Inconsistent Research — Royal Bank or its affiliates may issue research reports on securities that are, or may become, components of the Basket. We may also publish research from time to time on financial markets and other matters that may influence the value of the Basket 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 Basket. You should make your own independent investigation of the merits of investing in the Notes and the Basket.

Changes in the Level of One Basket Component May Be Offset by Changes in the Level of the Other Basket Components — A change in the level of one Basket Component may not correlate with changes in the levels of the other Basket Components. The level of one Basket Component may increase, while the levels of the other Basket Components may not increase as much, or may even decrease. Therefore, in determining the value of the Basket as of any time, increases in the level of one Basket Component may be moderated, or wholly offset, by lesser increases or decreases in the level of the other Basket Components.

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

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An Investment in the Notes Is Subject to Risks Relating to Non-U.S. Securities Markets — Because foreign companies or foreign equity securities included in the SX5E are publicly traded in the applicable foreign countries and are denominated in euros, an investment in the securities involves particular risks. For example, the non-U.S. securities markets may be more volatile than the U.S. securities markets, and market developments may affect these markets differently from the U.S. or other securities markets. Direct or indirect government intervention to stabilize the securities markets outside the U.S., as well as cross-shareholdings in certain companies, may affect trading prices and trading volumes in those markets. Also, the public availability of information concerning the foreign issuers may vary depending on their home jurisdiction and the reporting requirements imposed by their respective regulators. In addition, the foreign issuers may be subject to accounting, auditing and financial reporting standards and requirements that differ from those applicable to U.S. reporting companies.

The Return on the Notes Will Not Be Adjusted for the Exchange Rates Related to the SX5E — Although the equity securities that comprise the SX5E are traded in euro, and the Notes are denominated in U.S. dollars, the amount payable on the Notes will not be adjusted for changes in the exchange rates between the U.S. dollar and the euro. Therefore, if the euro appreciates or depreciates relative to the U.S. dollar over the term of the Notes, you will not receive any additional payment or incur any reduction in any payment on the Notes. Changes in exchange rates, however, may also reflect changes in the foreign economies that in turn may affect the level of the SX5E, and therefore the return on the 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.

You Will Be Required to Include Income on the Notes Over Their Term Based Upon a Comparable Yield, Even Though You Will Not Receive Any Payments Until Maturity — The Notes are considered to be issued with original issue discount. You will be required to include income on the Notes 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 “Supplemental Discussion of U.S. Federal Income Tax Consequences” and consult your own tax advisor.

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INFORMATION REGARDING THE BASKET COMPONENTS

All disclosures contained in this terms supplement regarding the Basket Components, including, without limitation, their make-up, method of calculation, and changes in their components, have been derived from publicly available sources prepared by the sponsors of the Basket Components. Such information reflects the policies of, and is subject to change by the sponsors. The sponsors have no obligation to continue to publish, and may discontinue publication of, the Basket Components. The consequences of the index sponsors discontinuing publication of the Basket Components 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 any Basket Component or any successor index.

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

depository 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 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.

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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.

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Historical Information

The graph below sets forth the information relating to the historical performance of the SPX. The information provided in this graph is for the period from January 1, 2009 through January 28, 2019.

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 th