ROYAL BANK OF CANADA
Form 424B2
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RBC Capital Markets®	Filed Pursuant to Rule 424(b)(2) Registration Statement No. 333-208507

Pricing Supplement Dated March 3, 2017 To the Product Prospectus Supplement ERN-EI-1 Dated January 12, 2016, Prospectus Supplement Dated January 8, 2016, and Prospectus Dated January 8, 2016	$14,427,000 Geared Buffered Fixed Coupon Notes with Averaging Linked to the S&P 500® Index, Due March 8, 2021 Royal Bank of Canada

Royal Bank of Canada is offering the Geared Buffered Fixed Coupon Notes with Averaging (the "Notes") linked to the performance of the S&P 500® Index (the "Reference Asset"). The Notes are senior unsecured obligations of Royal Bank of Canada, will pay a semi-annual coupon (each a "Coupon Payment") at the coupon rate specified below, and will have the terms described in the documents described above, as supplemented or modified by this pricing supplement, as set forth below.

The CUSIP number for the Notes is 78012KA49. You could lose up to 100% of the principal amount of the Notes at maturity. All payments on the Notes are subject to our credit risk.

Issue Date: March 8, 2017

Maturity Date: March 8, 2021

The Notes will not be listed on any securities exchange.

Coupon Rate:	1.40% per annum. The Coupon Payments on the Notes will not be impacted by the level of the Reference Asset.
Coupon Payment Dates:	Semi-annually, on September 8, 2017, March 8, 2018, September 7, 2018, March 7, 2019, September 6, 2019, March 6, 2020, September 9, 2020 and the Maturity Date.
Payment at Maturity (if held to maturity):	For each $1,000 principal amount, in addition to the final Coupon Payment, the investor will receive at maturity an amount in cash equal to: · if the Final Percentage Change is greater than or equal to -20%, $1,000 + ($1,000 x Average Percentage Change); or · if the Final Percentage Change is less than -20%, $1,000 + {$1,000 x [((Final Percentage Change + 20%) x 1.25) + Average Percentage Change]}. The Average Percentage Change (as defined below) has a minimum value of zero. As a result, if the level of the Reference Asset does not decrease from the Initial Level to the Final Level by more than 20%, investors will receive at least the principal amount. If the level of the Reference Asset decreases by more than 20%, investors will lose up to 100% of the principal amount if the Average Percentage Change does not offset the leveraged difference between the Final Percentage Change and the Buffer Percentage of 20%.

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" beginning on page P-7 of

this pricing 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 pricing supplement is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Note	Total
Price to public	100%	$14,427,000
Underwriting discounts and commissions	0%	$0
Proceeds to Royal Bank of Canada	100%	$ 14,427,000

The initial estimated value of the Notes as of the date of this pricing supplement is $992.84 per $1,000 in principal amount, which is less than the price to public. 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.

RBC Capital Markets, LLC, which we refer to as RBCCM, acting as agent for Royal Bank of Canada, did not receive any commission in connection with the sale of the Notes. See “Supplemental Plan of Distribution (Conflicts of Interest)” on page P-21 below.

Non-U.S. holders will not be subject to withholding on dividend equivalent payments under Section 871(m) of the U.S. Internal Revenue Code. Please see the section below, “Supplemental Discussion of U.S. Federal Income Tax Consequences,” which applies to the Notes.

RBC Capital Markets, LLC

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SUMMARY

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

General:	This pricing supplement relates to an offering of Geared Buffered Fixed Coupon Notes with Averaging (the "Notes") linked to the S&P 500® Index (the "Reference Asset").
Issuer:	Royal Bank of Canada ("Royal Bank")
Issue:	Senior Global Medium-Term Notes, Series G
Denominations:	Minimum denomination of $1,000, and integral multiples of $1,000 thereafter.
Designated Currency:	U.S. Dollars
Reference Asset:	S&P 500® Index
Pricing Date:	March 3, 2017
Issue Date:	March 8, 2017
Valuation Date:	March 3, 2021
Averaging Dates:	June 3, 2020, September 3, 2020, December 3, 2020 and March 3, 2021 (the Valuation Date).
Maturity Date:	March 8, 2021
Term:	Four years
Coupon Rate:	1.40% per annum. The Coupon Payments will not be impacted by the level of the Reference Asset.
Coupon Payment Dates:	Semi-annually, on September 8, 2017, March 8, 2018, September 7, 2018, March 7, 2019, September 6, 2019, March 6, 2020, September 9, 2020 and the Maturity Date.
Day Count Fraction:	30/360, following unadjusted.
Record Dates:	The record date for each Coupon Payment Date will be the date one business day prior to that scheduled Coupon Payment Date; provided, however, that any Coupon Payment payable at maturity will be payable to the person to whom the Payment at Maturity will be payable.
Final Percentage Change:	Expressed as a percentage, an amount equal to:
Average Percentage Change:	Expressed as a percentage, an amount equal to: , subject to a minimum value of zero.
Buffer Percentage:	20%
Buffer Level:	1,906.50, which is 80% of the Initial Level (rounded to two decimal places).
Downside Leverage Factor:	1.25

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Initial Level:	2,383.12, which was the closing level of the Reference Asset on the pricing date.
Final Level:	The closing level of the Reference Asset on the Valuation Date.
Average Level:	The arithmetic average of the closing level of the Reference Asset on each of the four quarterly Averaging Dates.
Payment at Maturity:	For each $1,000 in principal amount of the Notes, in addition to the final Coupon Payment at maturity, the investor will receive at maturity an amount in cash equal to: • if the Final Percentage Change is greater than or equal to -20%, $1,000 + ($1,000 x Average Percentage Change); In such a case, because the minimum Average Percentage Change is zero, the Payment at Maturity will not be less than $1,000 per $1,000 in principal amount. • if the Final Percentage Change is less than -20%, $1,000 + {$1,000 x [((Final Percentage Change + Buffer Percentage) x Downside Leverage Factor) + Average Percentage Change]} In such a case, the return on the Notes could be negative, and you will lose up to 100% of the principal amount if the Average Percentage Change does not offset the leveraged difference between the Final Percentage Change and the Buffer Percentage.
Calculation Agent:	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 income-bearing derivative contract linked to the Reference Asset 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 (the "IRS") 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," which applies to the Notes.
Secondary Market:	RBCCM (or one of its affiliates), though not obligated to do so, plans to 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.
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 January 8, 2016).
Terms 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 pricing 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 pricing supplement.

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ADDITIONAL TERMS OF YOUR NOTES

You should read this pricing 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 pricing supplement will have the meanings given to them in the product prospectus supplement. In the event of any conflict, this pricing supplement will control. The Notes vary from the terms described in the product prospectus supplement in several important ways. In particular, the Notes will pay coupons, but the payments on the Notes will not exceed the sum of the principal amount and the Coupon Payments. You should read this pricing supplement carefully.

This pricing 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 pricing supplement, “we,” “us,” or “our” refers to Royal Bank of Canada.

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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 (excluding the final Coupon Payment and rounded to two decimal places) are not estimates or forecasts of the Average Level, the Final Level or the level of the Reference Asset on any Averaging Date, the Valuation Date, or on any trading day prior to the Maturity Date. All examples are based on the Buffer Percentage of 20% (the Buffer Level is 80% of the Initial Level) and the Downside Leverage Factor of 1.25, and assume that a holder purchased Notes with an aggregate principal amount of $1,000 and that no market disruption event occurs on any Averaging Date, including the Valuation Date.

Example 1 — Calculation of the Payment at Maturity where the Final Percentage Change is greater than or equal to -20% (and the Average Percentage Change is positive).

Average Percentage Change:	10%
Final Percentage Change:	-10%
Payment at Maturity:	$1,000 + ($1,000 x 10%) = $1,000 + $100 = $1,100

On a $1,000 investment, when the Final Percentage Change is greater than or equal to -20%, a 10% Average Percentage Change results in a Payment at Maturity of $1,100, a return on the Notes equal to the Average Percentage Change of 10%.

Example 2 — Calculation of the Payment at Maturity where the Final Percentage Change is greater than or equal to -20% (and the Average Percentage Change is negative).

Average Percentage Change:	-10%, however, the minimum Average Percentage Change is zero
Final Percentage Change:	30%
Payment at Maturity:	$1,000 + ($1,000 x 0%) = $1,000 + $0 = $1,000

On a $1,000 investment, when the Final Percentage Change is greater than or equal to -20%, although the Final Percentage Change is 30%, a -10% Average Percentage Change results in a Payment at Maturity of $1,000, a 0% return on the Notes.

Example 3 — Calculation of the Payment at Maturity where the Final Percentage Change is less than -20% (and the Average Percentage Change is positive).

Average Percentage Change:	14%
Final Percentage	-30%

Change:

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Payment at Maturity: $1,000 +{$1,000 x [((-30% + 20%) x 1.25) + 14%]} = $1,000 + $15 = $1,015
On a $1,000 investment, when the Final Percentage Change is less than -20%, a 14% Average Percentage Change results in a Payment at Maturity of $1,015, a 1.50% return on the Notes. In this case, the positive Average Percentage Change offsets the leveraged difference between the Final Percentage Change and the Buffer Percentage, resulting in a positive return on the Notes.

Example 4— Calculation of the Payment at Maturity where the Final Percentage Change is less than -20% (and the Average Percentage Change is positive).

Average Percentage Change:	10%
Final Percentage Change:	-50%

Payment at Maturity: $1,000 +{$1,000 x [((-50% + 20%) x 1.25) + 10%]} = $1,000 - $275 = $725
On a $1,000 investment, when the Final Percentage Change is less than -20%, a 10% Average Percentage Change results in a Payment at Maturity of $725, a -27.50% return on the Notes. In this case, the positive Average Percentage Change does not offset the leveraged difference between the Final Percentage Change and the Buffer Percentage, resulting in a negative return on the Notes.

Example 5— Calculation of the Payment at Maturity where the Final Percentage Change is less than -20% (and the Average Percentage Change is negative).

Average Percentage Change:	-5%, however, the minimum Average Percentage Change is zero
Final Percentage Change:	-30%

Payment at Maturity: $1,000 +{$1,000 x [((-30% + 20%) x 1.25) + 0%]} = $1,000 - $125 = $875
On a $1,000 investment, when the Final Percentage Change is less than -20%, a -5% Average Percentage Change results in a Payment at Maturity of $875, a -12.50% return on the Notes. In this case, since the Average Percentage Change is negative, you will be subject to a loss equal to the leveraged difference between the Final Percentage Change and the Buffer Percentage, resulting in a negative 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 could lose up to 100% of their principal amount if the Final Percentage Change is less than -20% and the Average Percentage Change, which has a minimum value of 0%, does not offset the leveraged difference between the Final Percentage Change and the Buffer Percentage. Unless the Average Percentage Change is positive, investors will lose 1.25% of the principal amount for each 1% that the Final Level is less than the Buffer Level. Even if the Average Percentage Change is positive, if the Final Level is less than the Buffer Level, you may lose a significant portion of your principal amount at maturity. There can be no assurances that the Average Percentage Change will be positive, and the more the Final Level is less than the Initial Level, the less likely it will be that the Average Percentage Change will be positive.
- The Return on the Notes Will Be Affected by the Average Percentage Change — If the Final Percentage Change is greater than or equal to -20%, the return on the Notes will equal the Average Percentage Change. Because the Average Percentage Change will be calculated based on the Average Level, which is based on the arithmetic average of the closing level of the Reference Asset on each of the four quarterly Averaging Dates, and the Average Level may be less than the Final Level on the Valuation Date, your return on the Notes may be less than what it would be if the payment on the Notes were based solely on the performance of the Reference Asset from the Initial Level to the Final Level. This difference could be particularly large if there is a significant increase in the closing level of the Reference Asset during the latter portion of the term of the Notes. Similarly, if the Final Percentage Change is less than -20%, the Average Percentage Change may be zero, or may not be sufficiently greater than zero to offset the Final Percentage Change. Additionally, the secondary market value of the Notes, if such a market exists, will be impacted by the closing level of the Reference Asset on any previous Averaging Dates, in that those levels will impact the amount payable at maturity.
- 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. 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 Coupon Payments and the amount due on the Maturity Date are dependent upon Royal Bank's ability to repay its obligations as of the applicable payment date. This will be the case even if the level of the Reference Asset increases after the Pricing Date. No assurance can be given as to what our financial condition will be at any time 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 Is Less than the Price to the Public – The initial estimated value set forth on the cover page of this pricing supplement 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 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 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 Is an Estimate Only, Calculated as of the Time the Terms of the Notes Were Set – The initial estimated value of the Notes is based on the value of our obligation to make the payments on the Notes, together with the mid-market value of the derivative embedded in the terms of the Notes. See “Structuring the Notes” below. Our estimate is based on a variety of assumptions, including our credit spreads, expectations as to dividends, interest rates and volatility, and the expected term of the Notes. These assumptions are based on certain forecasts about future events, which may prove to be incorrect. Other entities may value the Notes or similar securities at a price that is significantly different than we do.

The value of the Notes at any time after the 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 Averaging Dates, including 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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ADDITIONAL TERMS OF THE NOTES

Market Disruption Events

If a market disruption event occurs or is continuing on any scheduled Averaging Date (other than the final Averaging Date), the closing level of the Reference Asset for that Averaging Date will equal the closing level of the Reference Asset on the first trading day following that Averaging Date on which the calculation agent determines that a market disruption event is not continuing. If a market disruption event occurs or is continuing on each trading day to and including the tenth trading day following that Averaging Date, the closing level of the Reference Asset for that Averaging Date will be determined (or, if not determinable, estimated by the calculation agent in a manner which is considered commercially reasonable under the circumstances) by the calculation agent on that tenth trading day, regardless of the occurrence or continuation of a market disruption event on that day. In such an event, the calculation agent will make a good faith estimate in its sole discretion of the closing level of the Reference Asset for that Averaging Date that would have prevailed in the absence of the market disruption event.

For a description of the impact of a market disruption event on the final Averaging Date (the Valuation Date), see "General Terms of the Notes—Market Disruption Events" in the product prospectus supplement.

Discontinuance of the Publication of or Material Modification to the Reference Asset on an Averaging Date

If S&P Dow Jones Indices LLC (the "Index Sponsor") discontinues publication of the Reference Asset and the Index Sponsor or another entity publishes a successor or substitute index that the calculation agent determines, in its sole discretion, to be comparable to the discontinued index (such successor or substitute index being referred to in this section as a "successor index"), then any subsequent closing level of the Reference Asset will be determined by reference to the published level of that successor index at the regular weekday close of trading on the applicable Averaging Date.

Upon any selection by the calculation agent of a successor index, the calculation agent will provide written notice to the trustee of the selection, and the trustee will furnish written notice thereof, to the extent the trustee is required to under the senior debt indenture, to each noteholder, or in the case of global notes, the depositary, as holder of the global notes.

If a successor index is selected by the calculation agent, that successor index will be used as a substitute for the Reference Asset for all purposes, including for purposes of determining whether a market disruption event exists with respect to the Reference Asset.

If the Index Sponsor discontinues publication of the Reference Asset prior to, and that discontinuance is continuing on, any Averaging Date and the calculation agent determines, in its sole discretion, that no successor index is available at that time, then the calculation agent will determine the closing level of the Reference Asset for the relevant Averaging Date in accordance with the formula for and method of calculating the Reference Asset last in effect prior to the discontinuance, without rebalancing or substitution, using the closing level (or, if trading in the relevant underlying securities or components of the Reference Asset have been materially suspended or materially limited, its good faith estimate of the closing level that would have prevailed but for that suspension or limitation) at the close of the principal trading session of the relevant exchange on that date of each security or component most recently comprising the Reference Asset.

If at any time the method of calculating a closing level for the Reference Asset or a successor index is changed in a material respect, or if the Reference Asset is in any other way modified so that the Reference Asset does not, in the opinion of the calculation agent, fairly represent the level of the Reference Asset had those changes or modifications not been made, then, from and after that time, the calculation agent will, at the close of business in New York City on the applicable Averaging Date, make such calculations and adjustments as, in the good faith judgment of the calculation

agent, may be necessary in order to arrive at a level of the Reference Asset comparable to the Reference Asset as if those changes or modifications had not been made. Accordingly, if the method of calculating the Reference Asset is modified so that the level of the Reference Asset is a fraction of what it would have been if it had not been modified (e.g., due to a split in the Reference Asset), then the calculation agent will adjust the Reference Asset in order to arrive at a level of the Reference Asset as if it had not been modified (e.g., as if such split had not occurred). Notwithstanding these alternative arrangements, discontinuance of the publication of or material modification to the Reference Asset may adversely affect the value of the Notes.

INFORMATION REGARDING THE REFERENCE ASSET

All disclosures contained in this pricing 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 chooses companies for inclusion in the Reference Asset with the aim of achieving a distribution by broad industry groupings that approximates the distribution of these groupings in the common stock population of its Stock Guide Database of over 10,000 companies, which S&P uses as an assumed model for the composition of the total market. Relevant criteria employed by S&P include the viability of the particular company, the extent to which that company represents the industry group to which it is assigned, the extent to which the market price of that company's common stock generally is responsive to changes in the affairs of the respective industry, and the market value and trading activity of the common stock of that company. S&P from time to time, in its sole discretion, may add companies to, or delete companies from, the Reference Asset to achieve the objectives stated above.

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, restricted shares, 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. If a company has multiple classes of stock outstanding, shares in an unlisted or non-traded class are treated as a control block.

For each stock, an investable weight factor ("IWF") is calculated by dividing the available float shares by the total shares outstanding. As of September 21, 2012, 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. For companies with multiple classes of stock, S&P calculates the weighted average IWF for each stock using the proportion of the total company market capitalization of each share class as weights.

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.

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Due March 8, 2021

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 shares outstanding of 5.00% or more due to mergers, acquisitions, public offerings, tender offers, Dutch auctions, or exchange offers are made as soon as reasonably possible. All other changes of 5.00% or more (due to, for example, company stock repurchases, private placements, redemptions, exercise of options, warrants, conversion of preferred stock, notes, debt, equity participation units, at the market offerings, or other recapitalizations) are made weekly and are announced on Fridays for implementation after the close of trading on the following Friday. Changes of less than 5.00% due to a company's acquisition of another company in the Reference Asset are made as soon as reasonably possible. All other changes of less than 5.00% are accumulated and made quarterly on the third Friday of March, June, September, and December, and are usually announced two to five days prior.

Changes in IWFs of more than five percentage points caused by corporate actions (such as merger and acquisition activity, restructurings, or spinoffs) will be made as soon as reasonably possible. Other changes in IWFs will be made annually when IWFs are reviewed.

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