

ROYAL BANK OF CANADA  
Form 424B2  
September 28, 2017

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Registration Statement No. 333-208507

Pricing Supplement  
Dated September 27,  
2017

To the Product \$657,000  
Prospectus Supplement Geared Buffered Return Notes  
ERN-EI-1 Dated January Linked to the S&P 500® Index,  
12, 2016, Prospectus Due October 2, 2023  
Supplement Dated Royal Bank of Canada  
January 8, 2016, and  
Prospectus Dated January  
8, 2016

Royal Bank of Canada is offering the Geared Buffered Return Notes (the “Notes”) linked to the performance of the S&P 500® Index (the “Reference Asset”). The CUSIP number for the Notes is 78012K6G7. The Notes do not pay interest. If the Final Level of the Reference Asset is greater than the Initial Level, investors will receive a 100.60% leveraged positive return. If the Final Level of the Reference Asset is greater than 72.00% of the Initial Level (the “Buffer Level”), but less than the Initial Level, investors will receive the Principal Amount.

However, if the Final Level is less than the Initial Level by more than the Buffer Percentage, investors will lose 1.3889% of the principal amount of the Notes for each 1% decrease from the Initial Level to the Final Level by more than the Buffer Percentage of 28.00%. Accordingly, investors may lose all or substantially all of their principal amount. Any payments on the Notes are subject to our credit risk.

Issue Date: September 29, 2017

Maturity Date: October 2, 2023

The Notes will not be listed on any securities exchange.

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 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.

	<u>Per Note</u>	<u>Total</u>
Price to public <sup>(1)</sup>	100.00%	\$657,000.00
Underwriting discounts and commissions <sup>(1)</sup>	3.25%	\$21,352.50
Proceeds to Royal Bank of Canada	96.75%	\$635,647.50

<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 \$967.50 and \$1,000 per \$1,000 in principal amount.

The initial estimated value of the Notes as of the date of this pricing supplement is \$939.80 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, received a commission of \$32.50 per \$1,000 in principal amount of the Notes and used a portion of that commission to allow selling concessions to other dealers of up to \$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.

We may use this pricing supplement in the initial sale of the Notes. In addition, RBCCM or another of our affiliates may use this pricing supplement in a market-making transaction in the Notes after their initial sale. Unless we or our agent informs the purchaser otherwise in the confirmation of sale, this pricing supplement is being used in a market-making transaction.

RBC Capital Markets, LLC

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Geared Buffered Return Notes  
Linked to the S&P 500® Index,  
Due October 2, 2023

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.

Issuer: Royal Bank of Canada (“Royal Bank”)  
Issue: Senior Global Medium-Term Notes, Series G  
Underwriter: RBC Capital Markets, LLC (“RBCCM”)  
Reference Asset: S&P 500® Index  
Bloomberg Ticker: SPX  
Currency: U.S. Dollars  
Minimum Investment: \$1,000 and minimum denominations of \$1,000 in excess thereof  
Pricing Date: September 27, 2017  
Issue Date: September 29, 2017  
CUSIP: 78012K6G7  
Valuation Date: September 27, 2023

Payment at Maturity (if held to maturity): If, on the Valuation Date, the Final Level is greater than or equal to the Initial Level, you will receive, for each \$1,000 in principal amount of the Notes:  
 $\$1,000 + [\$1,000 \times (\text{Percentage Change} \times \text{Leverage Factor})]$   
If, on the Valuation Date, the Final Level is greater than or equal to the Buffer Level but less than the Initial Level, you will receive \$1,000 per \$1,000 principal amount of the Notes.  
If the Final Level is less than the Buffer Level, then the investor will receive, for each \$1,000 in principal amount of the Notes:  
 $\text{Principal Amount} + [\text{Principal Amount} \times (\text{Percentage Change} + \text{Buffer Percentage}) \times \text{Downside Multiplier}]$   
This amount will be less than the principal amount, and you may lose all or substantially all of your investment in the Notes.

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

Initial Level: 2,507.04, 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.

Leverage Factor: 100.60%

Buffer Percentage: 28.00%

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Buffer Level: 72.00% of the Initial Level.

Downside Multiplier: 100% divided by the Buffer Level. Accordingly, the Downside Multiplier will be 1.3889.

Maturity Date: October 2, 2023, subject to extension for market and other disruptions, as described in the product prospectus supplement dated January 12, 2016.

Term: Approximately six (6) years.

Principal at Risk: The Notes are NOT principal protected. You may lose all or a substantial portion of your principal amount at maturity if the Final Level is less than the Buffer Level.

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 derivative contract for U.S. federal income tax purposes. However, the U.S. federal income tax consequences of your investment in the Notes are uncertain and the Internal Revenue Service could assert that the Notes should be taxed in a manner that is different from that described in the preceding sentence. Please see the section below, "Supplemental Discussion of U.S. Federal Income Tax Consequences," and the discussion (including the opinion of our counsel Morrison & Foerster LLP) in the product prospectus supplement dated January 12, 2016 under "Supplemental Discussion of U.S. Federal Income Tax Consequences," which apply to the Notes.

Secondary Market: RBCCM (or one of its affiliates), though not obligated to do so, 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. 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](http://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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Geared Buffered Return Notes  
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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 Final Level or the level of the Reference Asset on any trading day prior to the Maturity Date. All examples are based on the Leverage Factor of 100.60%, the Buffer Percentage of 28.00% (the Buffer Level is 72.00% of the Initial Level), and the Downside Multiplier of 1.3889% (100% divided by 72.00%), and assume that the 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: 5.00%

Payment at Maturity:  $\$1,000 + [\$1,000 \times (5.00\% \times 100.60\%)] = \$1,000 + \$50.30 = \$1,050.30$

On a \$1,000 investment, a 5% Percentage Change results in a Payment at Maturity of \$1,050.30, a 5.03% return on the Notes.

Example 2—Calculation of the Payment at Maturity where the Percentage Change is negative, but the Final Level is greater than the Buffer Level.

Percentage Change: -15.00%

Payment at Maturity: \$1,000

On a \$1,000 investment, a

-15% Percentage Change

results in a Payment at

Maturity of \$1,000, a 0.00%

return on the Notes.

Example 3—Calculation of the Payment at Maturity where the Final Level is less than the Buffer Level.

Percentage Change: -40.00%

Payment at Maturity:  $\$1,000 + [\$1,000 \times (-40.00\% + 28.00\%) \times 1.3889] = \$1,000 - \$166.67 = \$833.33$

On a \$1,000 investment, a -40% Percentage Change results in a Payment at Maturity of \$833.33, a -16.667% return on the Notes.

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Geared Buffered Return Notes  
Linked to the S&P 500® Index,  
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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 all or a substantial portion of their principal amount if there is a decline in the level of the Reference Asset. You will lose 1.3889% of the principal amount of the Notes for each 1% that the Final Level is less than the Initial Level by more than the Buffer Percentage.**

**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 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 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 level of the Reference Asset increases after the Pricing Date. No assurance can be given as to what our financial condition will be at the maturity of the Notes.**

**There May Not Be an Active Trading Market for the Notes—Sales in the Secondary Market May Result in Significant Losses – There may be little or no secondary market for the Notes. The Notes will not be listed on any securities exchange. RBCCM and other affiliates of Royal Bank may make a market for the Notes; however, they are not required to do so. RBCCM or any other affiliate of Royal Bank may stop any market-making activities at any time. Even if a secondary market for the Notes develops, it may not provide significant liquidity or trade at prices advantageous to you. We expect that transaction costs in any secondary market would be high. As a result, the difference between bid and asked prices for your Notes in any secondary market could be substantial.**

**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 underwriting discount and the estimated costs relating to our hedging of the Notes. These factors, together with various credit, market and economic factors over the term of the Notes, are expected to reduce the price at which you may be able to sell the Notes in any secondary market and will affect the value of the Notes in complex and unpredictable ways. Assuming no change in market conditions or any other relevant factors, the price, if any, at which you may be able to sell your Notes prior to maturity may be less than your original purchase price, as any such sale price would not be expected to include the underwriting discount and the hedging costs relating to the Notes. In addition to bid-ask spreads, the value of the Notes determined 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**

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Geared Buffered Return Notes  
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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 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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Gear­ed Buffer­ed Return Notes  
Link­ed to the S&P 500® Index,  
Due Octo­ber 2, 2023

#### 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 accept 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 employ­es 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

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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 depository 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. 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.

#### 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. Share changes due to mergers or acquisitions of publicly held companies that trade on a major exchange are implemented when the transaction occurs even if both of the companies are not in the same headline index, and regardless of the size of the change. 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% are accumulated and made quarterly on the third Friday of March, June, September, and December, and are usually announced two to five days prior.

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If a change in a company's shares outstanding of 5.00% or more 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

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Geared Buffered Return Notes  
 Linked to the S&P 500® Index,  
 Due October 2, 2023  
 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, 2014, 2015 and 2016 and the first and second quarters of 2017, and for the period from July 1, 2017 through September 27, 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 of the Reference Asset	Low Intra-Day Level of the Reference Asset	Period-End Closing Level of the Reference Asset
1/1/2013	3/31/2013	1,570.28	1,426.19	1,569.19
4/1/2013	6/30/2013	1,687.18	1,536.03	1,606.28
7/1/2013	9/30/2013	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	12/28/2016	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	9/27/2017	2,511.75	2,407.70	2,507.04

PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.

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Gear­ed Buffer­ed Return Notes  
Link­ed to the S&P 500® Index,  
Due Octo­ber 2, 2023

SUPPLEMENTAL DISCUSSION OF  
U.S. FEDERAL INCOME TAX CONSEQUENCES

The follow­ing disclo­sure sup­ple­ments, and to the extent in­con­sis­tent sup­er­se­des, the discus­sion in the prod­uct pros­pectus sup­ple­ment dat­ed Jan­u­ary 12, 2016 un­der “Sup­ple­men­tal Dis­cus­sion of U.S. Fed­er­al In­come Tax Con­se­quences.”

Un­der Sec­tion 871(m) of the Code, a “divid­end equi­val­ent” pay­ment is treated as a divid­end from sources with­in the United States. Such pay­ments gen­er­ally would be sub­ject to a 30% U.S. with­hold­ing tax if paid to a non-U.S. hold­er. Un­der U.S. Treas­ury De­part­ment reg­u­la­tions, pay­ments (in­clud­ing deemed pay­ments) with re­spect to equity-linked in­stru­ments (“ELIs”) that are “spec­ified ELIs” may be treated as divid­end equi­val­ents if such spec­ified ELIs ref­er­ence an in­ter­est in an “un­der­ly­ing secu­rity,” which is gen­er­ally any in­ter­est in an en­ti­ty tax­able as a cor­por­a­tion for U.S. fed­er­al in­come tax pur­poses if a pay­ment with re­spect to such in­ter­est could give rise to a U.S. source divid­end. How­ever, the IRS has issued guid­ance that states that the U.S. Treas­ury De­part­ment and the IRS in­te­nd to amend the effec­tive dates of the U.S. Treas­ury De­part­ment reg­u­la­tions to pro­vide that with­hold­ing on divid­end equi­val­ent pay­ments will not ap­ply to spec­ified ELIs that are not delta-one in­stru­ments and that are issued be­fore Jan­u­ary 1, 2019. Based on our de­ter­mi­na­tion that the Notes are not delta-one in­stru­ments, non-U.S. hold­ers should not be sub­ject to with­hold­ing on divid­end equi­val­ent pay­ments, if any, un­der the Notes. How­ever, it is pos­si­ble that the Notes could be treated as deemed re­issued for U.S. fed­er­al in­come tax pur­poses upon the oc­cur­rence of cer­tain events affect­ing the Ref­er­ence Asset or the Notes (for ex­am­ple, upon a Ref­er­ence Asset rebalanc­ing), and fol­low­ing such oc­cur­rence the Notes could be treated as sub­ject to with­hold­ing on divid­end equi­val­ent pay­ments. Non-U.S. hold­ers that enter, or have entered, in­to other trans­ac­tions in re­spect of the Ref­er­ence Asset or the Notes should con­sult their tax ad­visors as to the ap­pli­ca­tion of the divid­end equi­val­ent with­hold­ing tax in the con­text of the Notes and their other trans­ac­tions. If any pay­ments are treated as divid­end equi­val­ents sub­ject to with­hold­ing, we (or the ap­pli­cable with­hold­ing agent) would be en­ti­tled to with­hold taxes with­out being re­quired to pay any ad­di­tion­al amounts with re­spect to amounts so with­held.

SUPPLEMENTAL PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

Deliv­ery of the Notes will be made against pay­ment for the Notes on Sep­tem­ber 29, 2017, which is the sec­ond (2nd) busi­ness day fol­low­ing the Pricing Date (this set­tle­ment cycle being re­ferred to as “T+2”). See “Plan of Dis­tri­bu­tion” in the pros­pectus dat­ed Jan­u­ary 8, 2016. For ad­di­tion­al in­for­ma­tion as to the re­la­tion­ship be­tween us and RBCCM, please see the sec­tion “Plan of Dis­tri­bu­tion-Con­flicts of In­ter­est” in the pros­pectus dat­ed Jan­u­ary 8, 2016.

In the in­i­tial offer­ing of the Notes, they will be offered to in­vestors at a pur­chase price equal to par, ex­cept with re­spect to cer­tain ac­counts as in­di­cated on the cover page of this docu­ment.

The value of the Notes shown on your ac­count state­ment may be based on RBCCM’s es­ti­mate of the value of the Notes if RBCCM or an­other of our af­fil­i­ates were to make a mar­ket in the Notes (which it is not ob­ligated to do). That es­ti­mate will be based upon the price that RBCCM may pay for the Notes in light of then pre­vail­ing mar­ket con­di­tions, our credit­worthi­ness and trans­ac­tion costs. For a pe­riod of ap­prox­i­mately 12 months af­ter the issue date of the Notes, the value of the Notes that may be shown on your ac­count state­ment may be higher than RBCCM’s es­ti­mated value of the Notes at that time. This is be­cause the es­ti­mated value of the Notes will not in­clude the un­der­writ­ing dis­count and our hedging costs and profits; how­ever, the value of the Notes shown on your ac­count state­ment dur­ing that pe­riod may in­i­tially be a higher amount, re­flect­ing the ad­di­tion of RBCCM’s un­der­writ­ing dis­count and our es­ti­mated costs and profits from hedging the Notes. This ex­cess is ex­pected to de­crease over time un­til the end of this pe­riod. Af­ter this pe­riod, if RBCCM re­pur­chases your Notes, it ex­pects to do so at prices that re­flect their es­ti­mated value.

Geared Buffered Return Notes  
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#### STRUCTURING THE NOTES

The Notes are our debt securities, the return on which is linked to the performance of the Reference Asset. As is the case for all of our debt securities, including our structured notes, the economic terms of the Notes reflect our actual or perceived creditworthiness at the time of pricing. In addition, because structured notes result in increased operational, funding and liability management costs to us, we typically borrow the funds under these Notes at a rate that is more favorable to us than the rate that we might pay for a conventional fixed or floating rate debt security of comparable maturity. Using this relatively lower implied borrowing rate rather than the secondary market rate, is a factor that reduced the initial estimated value of the Notes at the time their terms were set. Unlike the estimated value included in this pricing supplement, any value of the Notes determined for purposes of a secondary market transaction may be based on a different funding rate, which may result in a lower value for the Notes than if our initial internal funding rate were used.

In order to satisfy our payment obligations under the Notes, we may choose to enter into certain hedging arrangements (which may include call options, put options or other derivatives) on the issue date with RBCCM or one of our other subsidiaries. The terms of these hedging arrangements take into account a number of factors, including our creditworthiness, interest rate movements, the volatility of the Reference Asset, and the tenor of the Notes. The economic terms of the Notes and their initial estimated value depend in part on the terms of these hedging arrangements.

The lower implied borrowing rate is a factor that reduced the economic terms of the Notes to you. The initial offering price of the Notes also reflects the underwriting commission and our estimated hedging costs. These factors resulted in the initial estimated value for the Notes on the Pricing Date being less than their public offering price. See “Selected Risk Considerations—The Initial Estimated Value of the Notes Is Less than the Price to the Public” above.

#### VALIDITY OF THE NOTES

In the opinion of Norton Rose Fulbright Canada LLP, the issue and sale of the Notes has been duly authorized by all necessary corporate action of the Bank in conformity with the Indenture, and when the Notes have been duly executed, authenticated and issued in accordance with the Indenture and delivered against payment therefor, the Notes will be validly issued and, to the extent validity of the Notes is a matter governed by the laws of the Province of Ontario or Québec, or the laws of Canada applicable therein, and will be valid obligations of the Bank, subject to equitable remedies which may only be granted at the discretion of a court of competent authority, subject to applicable bankruptcy, to rights to indemnity and contribution under the Notes or the Indenture which may be limited by applicable law; to insolvency and other laws of general application affecting creditors’ rights, to limitations under applicable limitations statutes, and to limitations as to the currency in which judgments in Canada may be rendered, as prescribed by the Currency Act (Canada). This opinion is given as of the date hereof and is limited to the laws of the Provinces of Ontario and Québec and the federal laws of Canada applicable thereto. In addition, this opinion is subject to customary assumptions about the Trustee’s authorization, execution and delivery of the Indenture and the genuineness of signatures and certain factual matters, all as stated in the letter of such counsel dated January 8, 2016, which has been filed as Exhibit 5.1 to Royal Bank’s Form 6-K filed with the SEC dated January 8, 2016.

In the opinion of Morrison & Foerster LLP, when the Notes have been duly completed in accordance with the Indenture and issued and sold as contemplated by the prospectus supplement and the prospectus, the Notes will be valid, binding and enforceable obligations of Royal Bank, entitled to the benefits of the Indenture, subject to applicable bankruptcy, insolvency and similar laws affecting creditors’ rights generally, concepts of reasonableness and equitable principles of general applicability (including, without limitation, concepts of good faith, fair dealing and the lack of bad faith). This opinion is given as of the date hereof and is limited to the laws of the State of New York. This opinion is subject to customary assumptions about the Trustee’s authorization, execution and delivery of the Indenture and the genuineness of signatures and to such counsel’s reliance on the Bank and other sources as to certain factual matters, all as stated in the legal opinion dated January 8, 2016, which has been filed as Exhibit 5.2 to the Bank’s Form 6-K dated January 8, 2016.

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