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Pricing Supplement

Dated February 21, 2020

to the Product Prospectus Supplement No. ERN-ES-1 Dated October 18, 2018, the Prospectus Supplement Dated September 7, 2018 and the Prospectus, Dated September 7, 2018 \$5,824,000

Notes Linked to the Raymond James Top Selections in Technology, due August 26, 2021

Royal Bank of Canada

Royal Bank of Canada is offering notes (the "Notes") linked to an equally-weighted basket (the "Basket") of 20 common stocks (each, a "Reference Stock") selected by Raymond James & Associates, Inc. ("Raymond James"). The Reference Stocks represent companies that operate in the technology sector. The Reference Stocks are listed in the "Summary" section below. The CUSIP number for the Notes is 78013GUU7. The ISIN for the Notes is US78013GUU74.

The Notes do not pay interest. Any payments on the Notes are subject to our credit risk. The Notes will not be listed on any securities exchange.

On the maturity date, the amount that we will pay to you for each \$1,000 in principal amount of the Notes (the "Redemption Amount") will depend upon the performance of the Basket and the dividends paid on the Reference Stocks over the term of the Notes. The Participation Rate is 97.35%. You may lose all or a portion of the principal amount of your Notes at maturity if the value of the Basket does not increase by at least approximately 2.73%, as described in more detail below. Please see the discussion below for more complete information about how the payment at maturity will be determined.

Issue Date: February 26, 2020

Maturity Date: August 26, 2021

Investing in the Notes involves a number of risks. See "Selected Risk Considerations" beginning on page P-7 of this pricing supplement, and "Risk Factors" beginning on page PS-4 of the product prospectus supplement and on page S-1 of the prospectus 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. 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 the Notes 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 ⁽¹⁾	100.00%	\$5,824,000
Underwriting discounts and commissions ⁽¹⁾	1.50%	\$87,360
Proceeds to Royal Bank of Canada	98.50%	\$5,736,640

(1) RBC Capital Markets, LLC, which we refer to as RBCCM, acting as agent for Royal Bank of Canada, will receive a commission of \$15.00 per \$1,000 in principal amount of the Notes, and will use a portion of that commission to allow selling concessions to Raymond James of up to \$15.00 per \$1,000 in principal amount of the Notes. In addition, RBCCM will pay to Raymond James a structuring fee of up to 0.77% of the principal amount of the Notes. Please see "Supplemental Plan of Distribution (Conflicts of Interest)" in this pricing supplement.

The initial estimated value of the Notes as of the date of this pricing supplement was \$973.50 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.

http://www.oblible.com

Notes Linked to the Raymond James Top Selections in Technology

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")
Underwriter:	RBC Capital Markets, LLC
Currency:	U.S. Dollars
Minimum Investment:	\$1,000 and minimum denominations of \$1,000 in excess thereof
Trade Date (Pricing Date):	February 21, 2020
Issue Date:	February 26, 2020
Valuation Date:	August 23, 2021
Maturity Date:	August 26, 2021, subject to extension for market and other disruptions, as described below and in the product prospectus supplement.
Interest Payments:	None. No payments on the Notes will be made prior to the maturity date.
Reference Asset:	A Basket consisting of the 20 Reference Stocks set forth in the table below. We refer to the issuer of each Reference Stock as a "Reference Stock Issuer."
Payment at Maturity (if held to maturity):	The amount that you will receive at maturity for each \$1,000 in principal amount of the Notes (the "Redemption Amount") will depend upon the performance of the Basket and the dividends paid on the Reference Stocks. The Redemption Amount will equal the product of (a) \$1,000, (b) the Basket Level Percentage and (c) the Participation Rate.
	As discussed in more detail below, the Basket Level Percentage must exceed approximately 102.73% in order for you to receive a Redemption Amount per \$1,000 in principal amount of the Notes that exceeds the principal amount. In addition, the Redemption Amount could be substantially less than the principal amount of the Notes.
Reference Stock Weighting:	For each Reference Stock, 1/20 th
Reference Stock Performance:	The Reference Stock Performance will measure the change in value of each Reference Stock over the term of the Notes, including the payment of certain dividends.
	For each Reference Stock, the Reference Stock Performance will equal (a) the applicable Final Share Price divided by (b) the applicable Initial Share Price, expressed as a percentage.
Weighted Reference Stock Performance:	For each Reference Stock, the product of (a) its Reference Stock Performance and (b) the Reference Stock Weighting.

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Participation 97.35%. Because the Participation Rate is less than 100%, the Basket Level Percentage must exceed approximately 102.73% in order for you to receive a Redemption Amount per \$1,000 in principal amount of the Notes that exceeds the principal amount. See "Hypothetical Returns" below.

The sum of the Weighted Reference Stock Performances.

Basket Level Percentage:

Initial Share Price:

For each Reference Stock, its closing price on the Trade Date, as determined by the Calculation Agent, as set forth in the following table:

Reference Stock	<u>Ticker</u>	Initial Share Price
Analog Devices, Inc.	ADI	\$122.76
Amazon.com, Inc.	AMZN	\$2,095.97
Aptiv PLC	APTV	\$90.07
Arrow Electronics Inc.	ARW	\$77.99
salesforce.com, inc.	CRM	\$189.50
Cisco Systems, Inc.	CSCO	\$46.295
Cubic Corporation	CUB	\$62.44
Dell Technologies Inc.	DELL	\$51.72
Fortinet, Inc.	FTNT	\$114.48
Microsoft Corporation	MSFT	\$178.59
Netflix, Inc.	NFLX	\$380.07
Pure Storage, Inc.	PSTG	\$17.88
QUALCOMM Incorporated	QCOM	\$87.03
Rapid7, Inc.	RPD	\$52.99
EchoStar Corporation	SATS	\$39.08
Synnex Corporation	SNX	\$141.75
Skyworks Solutions, Inc.	SWKS	\$114.63
AT&T Inc.	Т	\$38.55
Veeva Systems Inc.	VEEV	\$159.82
VMWare, Inc.	VMW	\$159.87

Final Share Price:

For each Reference Stock, the sum of (a) the closing price on the Valuation Date and (b) the Dividend Amount for that Reference Stock.

RBC Capital Markets, LLC

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Dividend Amount:	An amount in U.S. dollars equal to 100% of the gross cash distributions (including ordinary and extraordinary dividends) per share of Reference Stock declared by the applicable Reference Stock Issuer where the date that the applicable Reference Stock has commenced trading ex-dividend on its primary U.S. securities exchange as to each relevant distribution occurs from the trading day after the Trade Date to the Valuation Date. The positive effect of the Dividend Amount on the Redemption Amount will be reduced as a result of the Participation Rate, as set forth in "—Payment at Maturity" above.
Calculation Agent:	RBC Capital Markets, LLC, our wholly-owned subsidiary ("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 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 discussion in this pricing supplement under "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 under "Supplemental Discussion of U.S. Federal Income Tax Consequences," which apply to the Notes.
Distribution:	The Notes are not intended for purchase by any investor that is not a United States person, as that term is defined for U.S. federal income tax purposes, and no dealer may make offers of the Notes to any such investor.
Secondary Market:	RBCCM (or one of its affiliates), though not obligated to do so, may maintain a secondary market in the Notes after the Issue Date. The amount that you may receive upon sale of your Notes prior to maturity may be less than the principal amount of your Notes.
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).
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 captions "Description of the Notes" below and "General Terms of the Notes" in the product prospectus supplement.

The Valuation Date for any Reference Stock, as well as the maturity date, are subject to postponement if a market disruption event occurs with respect to an applicable Reference Stock, as described in the product prospectus supplement.

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ADDITIONAL TERMS OF YOUR NOTES

You should read this pricing 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 October 18, 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 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.

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 and in the product prospectus supplement, 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 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/I96181424b3.htm

Prospectus Supplement dated September 7, 2018: <u>https://www.sec.gov/Archives/edgar/data/1000275/000121465918005975/f97180424b3.htm</u>

Product Prospectus Supplement ERN-ES-1 dated October 18, 2018: <u>https://www.sec.gov/Archives/edgar/data/1000275/000114036118040853/form424b5.htm</u>

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 following hypothetical examples are provided for illustration purposes only and are hypothetical; they do not purport to be representative of every possible scenario concerning increases or decreases in the value of the Basket and the related effect on the Redemption Amount. The following hypothetical examples illustrate the payment you would receive on the maturity date if you purchased \$1,000 in principal amount of the Notes. Numbers appearing in the examples below have been rounded for ease of analysis. The examples below are based on the Participation Rate of 97.35%.

Basket Level Percentage	Redemption Amount per \$1,000 in Principal Amount	Percentage Gain (or Loss) per \$1,000 in Principal Amount
140.00%	\$1,362.90	36.29%
130.00%	\$1,265.55	26.56%
120.00%	\$1,168.20	16.82%
110.00%	\$1,070.85	7.09%
102.73%(1)	\$1,000.00	0.00%
100.00%(2)	\$973.50	-2.65%
90.00%	\$876.15	-12.39%
80.00%	\$778.80	-22.12%
70.00%	\$681.45	-31.86%
60.00%	\$584.10	-41.59%
30.00%	\$292.05	-70.80%
0.00%	\$0.00	-100.00%

(1) For you to receive a Redemption Amount greater than the principal amount of the Notes, the Basket Level Percentage must be greater than approximately 102.73% due to the effect of the Participation Rate being only 97.35%.

(2) If the Basket Level Percentage is not at least approximately 102.73%, you will lose some or all of the principal amount of the Notes.

Please see the sections below, "Additional Risk Factors—General Risks Relating to the Terms of the Notes—Principal at Risk" and "—The Notes Will Not Reflect the Full Performance of the Reference Stocks, Which May Negatively Impact Your 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 any of the Reference Stocks. These risks are explained in more detail in the section "Risk Factors" beginning on page PS-4 of the product prospectus supplement and page S-1 of the prospectus supplement. In addition to the risks described in the product prospectus supplement and the prospectus supplement, you should consider the following:

General Risks Relating to the Terms of the Notes

- Principal at Risk The Notes do not guarantee any return of principal. The amount payable on the Notes at maturity will depend on the performance of each of the Reference Stocks and the applicable Dividend Amount, and may be less, and possibly significantly less, than your initial investment. If the prices of some or all of the Reference Stocks decrease, the payment at maturity may be less than the principal amount. In addition, because the Participation Rate is only 97.35%, the Basket Level Percentage must exceed approximately 102.73% in order for you to receive a Redemption Amount that exceeds the principal amount. You may lose all or a substantial portion of the amount that you invested to purchase the Notes. You may incur a loss, even if the Basket Level Percentage is positive (but less than approximately 102.73%). Please also see "—The Notes Will Not Reflect the Full Performance of the Reference Stocks, Which May Negatively Impact Your Return on the Notes."
- 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. Your return may be less than the return you would earn if you bought a conventional senior interest bearing debt security of Royal Bank.
- The Notes Will Not Reflect the Full Performance of the Reference Stocks, Which May Negatively Impact Your Return on the Notes Because the calculation of the Redemption Amount includes a Participation Rate of less than 100%, the return, if any, on the Notes will not reflect the full performance of the Reference Stocks. Therefore, the yield to maturity based on the methodology for calculating the Redemption Amount will be less than the yield that would be produced if the Reference Stocks were purchased and held for a similar period. The Basket Level Percentage must be at least approximately 102.73% for the Redemption Amount to exceed the principal amount.
- 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 our unsecured debt securities. As a result, your receipt of
 any amounts due on the Notes is dependent upon our ability to repay our obligations on the applicable payment date.
 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 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 our other affiliates may make a market for the Notes; however, they are not required to do so. RBCCM or any other affiliate of ours 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 Initial Estimated Value of the Notes Is Less than the Price to the Public The initial estimated value that is 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 prices of the Reference Stocks, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to the public of the underwriting

discount, structuring fee 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, structuring fee, and the hedging costs relating to the Notes. In addition to bid-ask spreads, the value of the Notes determined by RBCCM for any secondary market price is expected to be based on the secondary rate rather than the internal funding rate used to price the Notes and determine the initial estimated value. As a result, the secondary price will be less than if the internal funding rate was used. The Notes are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Notes to maturity.

The Initial Estimated Value of the Notes on the Cover Page of this Pricing Supplement 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 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.

- Any Increase in the Price of One or More Reference Stocks May Be Offset by Decreases in the Price of One or More Other Reference Stocks — The price of one or more of the Reference Stocks may increase while the price of one or more of the other Reference Stocks decreases. Therefore, in determining the value of the Basket at any time, including on the Valuation Date, increases in the price of one Reference Stock may be moderated, or wholly offset, by decreases in the price of one or more other Reference Stocks.
- **The Market Value of the Notes May Be Influenced by Many Unpredictable Factors** The following factors, many of which are beyond our control, may influence the market value of the Notes:
 - · the market prices of the Reference Stocks;
 - the dividend yields of the Reference Stocks;
 - economic, financial, political, military, regulatory, legal and other events that affect the securities markets generally, and which may affect the values of the Reference Stocks; and
 - interest rates in the market.

These factors may influence the market value of your Notes if you sell your Notes before maturity. Our creditworthiness, as represented by our credit ratings or as otherwise perceived in the market will also affect the market value of your Notes. If you sell your Notes prior to maturity, you may receive less than your initial investment.

You Must Rely on Your Own Evaluation of the Merits of an Investment Linked to the Reference Stocks — In the ordinary course of their business, RBCCM, Raymond James and our respective affiliates may have expressed views on expected movements in any Reference Stock, and may do so in the future. These views or reports may be communicated to our clients, Raymond James' clients, and clients of our respective affiliates. However, these views are subject to change from time to time. Moreover, other professionals who transact business in markets relating to any Reference Stock may at any time have significantly different views from those of our respective affiliates. For

these reasons, you are encouraged to derive information concerning the Reference Stocks from multiple sources, and you should not rely solely on views expressed by us, Raymond James or our respective affiliates.

Our Trading and Other Transactions Relating to the Reference Stocks, Futures, Options or Other Derivative Products May Adversely Affect the Market Value of the Notes — As described below under "Use of Proceeds and Hedging" in the product prospectus supplement, we or our affiliates may hedge our obligations under the Notes by purchasing or selling the Reference Stocks, futures or options relating to the Reference Stocks, or other derivative instruments with returns linked or related to changes in the performance of the Reference Stocks. We may adjust these hedges by, among other things, purchasing or selling those assets at any time. Although they are not expected to do so, any of these hedging activities may adversely affect the prices of the Reference Stocks, and therefore, the market value of the Notes, and the amount payable at maturity. It is possible that we or one or more of our affiliates could receive substantial returns from these hedging activities, even though the market value of the Notes decreases.

We, Raymond James, or one or more of our respective affiliates may also engage in trading relating to the Reference Stocks on a regular basis as part of our general broker-dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate transactions for our customers, including block trades. Any of these activities could adversely affect the prices of the Reference Stocks and, therefore, the market value of the Notes. We, Raymond James, or one or more of our respective affiliates may also issue or underwrite other securities or financial or derivative instruments with returns linked or related to changes in the performance of the Reference Stocks. By introducing competing products into the marketplace in this manner, we, Raymond James or one or more of our respective affiliates roule of the Notes.

- Our Business Activities and the Business Activities of Our Affiliates May Create Conflicts of Interest As noted above, we, Raymond James, or one or more of our respective affiliates expect to engage in trading activities related to the Reference Stocks that are not for the account of holders of the Notes or on their behalf. These trading activities may present a conflict between the holders' interests in the Notes and the interests we, Raymond James and our respective affiliates will have in their proprietary accounts, in facilitating transactions, including options and other derivatives transactions, for their customers and in accounts under their management. These trading activities, if they influence the prices of the Reference Stocks, could be adverse to the interests of the holders of the Notes. We, Raymond James, or one or more of our respective affiliates may, at present or in the future, engage in business with the Reference Stock Issuers, including making loans to or providing advisory services to those companies. These services could include investment banking and merger and acquisition advisory services. In providing these services, we or Raymond James may obtain confidential information about the Reference Stock Issuers, and we will be under no obligation to share this information with you. These activities may present a conflict between our, Raymond James or one or more of our affiliates' obligations and your interests as a holder of the Notes. Moreover, we, Raymond James and our respective affiliates have published, and in the future expect to publish, research reports and other materials with respect to most or even all of the Reference Stocks. Our views are modified from time to time without notice and may express opinions or provide recommendations that are inconsistent with purchasing or holding the Notes. Even if one of our affiliates or Raymond James expresses a negative opinion about one or more of the Reference Stocks, or if market conditions change, the composition of the Basket will not change during the term of the Notes (except under the limited circumstances described below). Any of these activities by us, Raymond James or one or more of our respective affiliates may affect the prices of the Reference Stocks and, therefore, the market value of the Notes.
 - As Calculation Agent, RBCCM Will Have the Authority to Make Determinations That Could Affect the Value of the Notes and the Payment at Maturity As Calculation Agent for your Notes, RBCCM will have discretion in making various determinations that affect your Notes, including determining the Initial Share Prices, the Final Share Prices, the Dividend Amounts, the Basket Level Percentage, the Redemption Amount and whether any market disruption event has occurred. The Calculation Agent also has discretion in making certain adjustments relating to mergers and certain other corporate transactions that a Reference Stock Issuer may undertake. The exercise of this discretion by RBCCM could adversely affect the value of your Notes and may present RBCCM, which is our wholly-owned subsidiary, with a conflict of interest.

- Owning the Notes Is Not the Same as Owning the Reference Stocks The return on your Notes is unlikely to reflect the return you would realize if you actually owned the Reference Stocks. For example, although certain dividends paid by the Reference Stock Issuers will be included in the Redemption Amount paid at maturity, you will have no right to receive these dividends at the time they are paid on the Reference Stocks; accordingly, an investment in the Notes may return less than an actual investment in the Reference Stocks. As an owner of the Notes, you will not have voting rights or any other rights that holders of the Reference Stocks may have. Furthermore, one or more of the Reference Stocks may appreciate during the term of the Notes, and, due to the Participation Rate, you will not fully participate in such appreciation.
- Significant Aspects of the Tax Treatment of the Notes Are Uncertain and Certain Aspects May Make the Notes Less Suitable for Certain Non-U.S. Investors The tax treatment of the Notes is uncertain. We do not plan to request a ruling from the Internal Revenue Service or from any Canadian authorities regarding the tax treatment of the Notes, and the Internal Revenue Service or a court may not agree with the tax treatment described in this pricing supplement.

The Internal Revenue Service has issued a notice indicating that it and the Treasury Department are actively considering whether, among other issues, a holder should be required to accrue interest over the term of an instrument such as the Notes even though that holder will not receive any payments with respect to the Notes until maturity and whether all or part of the gain a holder may recognize upon sale or maturity of an instrument such as the Notes could be treated as ordinary income. The outcome of this process is uncertain and could apply on a retroactive basis.

Moreover, the Notes are not intended for purchase by any investor that is not a United States person, as that term is defined for U.S. federal income tax purposes, and no dealer may make offers of the Notes to any such investor. If investors that are not "United States persons" for U.S. federal income tax purposes acquire any Notes, such investors may incur U.S. tax obligations as a result of owning such Notes.

Please read carefully the section entitled "Supplemental Tax Considerations" in this pricing supplement, the section entitled "United States Federal Income Taxation" in the accompanying prospectus and the section entitled "Certain Income Tax Consequences" in the accompanying prospectus supplement. You should consult your tax advisor about your own tax situation.

 Market Disruption Events and Adjustments — The payments on the Notes are subject to adjustment as described in this document. For a description of what constitutes a market disruption event as well as the consequences of that market disruption event, see "Description of the Notes—Market Disruption Events" below.

Additional Risks Relating to the Reference Stocks

- **The Inclusion of the Reference Stocks in the Basket Does Not Guarantee a Positive Return** The performance of the Reference Stocks may be less than the performance of the equities markets generally, and less than the performance of technology stocks generally, or other securities in which you may choose to invest. Although Raymond James may have expressed a positive view as to one or more of the Reference Stocks prior to the Trade Date, its views may have changed significantly prior to the Trade Date or may change significantly during the term of the Notes. In addition, any positive views of Raymond James' research division is separate and apart from the offering of these Notes, and does not constitute investment advice. Our offering of the Notes does not constitute our recommendation or the recommendation of ours, Raymond James, or our respective affiliates to invest in the Notes or in the Reference Stocks.
 - The Reference Stocks Are Concentrated in One Sector All of the Reference Stocks are issued by companies in the technology sector. Although an investment in the Notes will not give holders any ownership or other direct interests in the Reference Stocks, the return on an investment in the Notes will be subject to certain risks associated with a direct equity investment in companies in the technology sector, including those discussed below. Accordingly, by investing in the Notes, you will not benefit from the diversification which could result from an investment linked to companies that operate in multiple sectors.

- Adverse Conditions in the Technology Sector May Reduce Your Return on the Notes All of the Reference Stocks are issued by companies whose primary lines of business are directly associated with the technology sector. The profitability of these companies is largely dependent on, for example, consumer demand for the companies' products, the companies' ability to generate advertising revenue, continued innovation, talent attraction and retention, maintaining intellectual property rights and industry competition. In addition, adverse economic, business or tax developments affecting the U.S. and/or the technology sector could affect the value of the Basket. Any of these factors may have an adverse effect on the value of the Notes.
- Some of the Reference Stocks Have a Limited Trading History DELL commenced trading in December 2018, and two other Reference Stocks, PSTG and RPD, commenced trading in 2015. Because these Reference Stocks have a limited trading history, your investment in the Notes may involve a greater risk than investing in securities linked to only securities that have a more established record of performance.
- You Will Not Have Any Shareholder Rights and Will Have No Right to Receive Any Reference Stocks at Maturity — Investing in the Notes will not make you a holder of any of the Reference Stocks. Neither you nor any other holder or owner of the Notes will have any voting rights, any right to receive dividends or other distributions (except to the extent that the Dividend Amounts are reflected in the Redemption Amount) or any other rights with respect to any of these securities.
- Changes That Affect a Reference Stock May Affect the Market Value of the Notes and the Amount You Will
 Receive at Maturity Changes affecting a Reference Stock or a Reference Stock Issuer, such as reorganizations or
 mergers, will be reflected in the price of that Reference Stock and therefore could affect the amount payable on your
 Notes at maturity and the market value of the Notes prior to maturity. If these events occur, the Calculation Agent may,
 for example, adjust the applicable Initial Share Price. See "Description of the Notes—Anti-Dilution Adjustments."
- No Reference Stock Issuer Will Have any Role or Responsibilities with Respect to the Notes None of the Reference Stock Issuers will have authorized or approved the Notes, or will be involved in this offering. No such company will have any financial or legal obligation with respect to the Notes or the amounts to be paid to you, including any obligation to take our needs or your needs into consideration for any reason, including taking any corporate actions that might affect the value of the Reference Stock Issuer or any other company will receive any of the proceeds from any offering of the Notes. No Reference Stock Issuer or any other company will be responsible for, or participate in, the determination or calculation of the Redemption Amount.
- Neither We Nor Raymond James Control Any Reference Stock Issuer and Neither We Nor Raymond James Are Responsible for Any Disclosure Made by Any Other Company — Neither we nor Raymond James nor any of our respective affiliates have the ability to control the actions of any Reference Stock Issuer, nor do we assume any responsibility for the adequacy or accuracy of any publicly available information about any of these companies, unless (and only to the extent that) our securities or the securities of our affiliates are represented by that Reference Stock. Neither we nor Raymond James are responsible for any other issuer's public disclosure of information on itself or any Reference Stock, whether contained in SEC filings or otherwise. Neither we nor Raymond James will perform any due diligence procedures with respect to the Reference Stock Issuers. You should make your own investigation into the Reference Stock Issuers.
- **The Historical Performance of the Reference Stocks Should Not Be Taken as an Indication of Their Future Performance** — The Final Share Prices of the Reference Stocks will be used to determine the Redemption Amount. The historical performance of the Reference Stocks does not necessarily give an indication of their future performance. As a result, it is impossible to predict whether the prices of the Reference Stocks will rise or fall during the term of the Notes. The prices of the Reference Stocks will be influenced by complex and interrelated political, economic, financial and other factors.

Holders of the Reference Stocks are only entitled to receive those dividends as each issuer's board of directors may declare out of funds legally available. Any such dividends will be reflected in the determination of the Redemption Amount, as set forth in the "Summary" section above. Although dividends and distributions on one or more of the

Reference Stocks may have historically been declared by the applicable board of directors, they are not required to do so and may reduce or eliminate those dividends in the future. The Dividend Amount of one or more of the Reference Stocks during the term of the Notes may be zero.

You Will Have Limited Anti-Dilution Protection with Respect to the Reference Stocks — The Calculation Agent will adjust the Initial Share Price of a Reference Stock for stock splits, reverse stock splits, stock dividends and other events that affect the applicable issuer's capital structure, but only in the situations we describe in "Description of the Notes—Anti-Dilution Adjustments" below. The Calculation Agent will not be required to make an adjustment for every corporate event that may affect a Reference Stock. For example, the Calculation Agent will not make any adjustments for events such as an offering by a Reference Stock Issuer of equity securities or a tender or exchange offer for less than all outstanding shares of that issuer by a third party. Those events or other actions by the applicable issuer or a third party may nevertheless adversely affect the price of the Reference Stock, and adversely affect the value of the Notes.

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DESCRIPTION OF THE NOTES

Composition of the Basket

Each Reference Stock was assigned a weighting (each, a "Reference Stock Weighting") so that each Reference Stock represents a specified portion of the value of the Basket on the Trade Date. The Reference Stock Weighting for each Reference Stock is 1/20th.

Payment at Maturity

The amount that you will receive at maturity for each \$1,000 in principal amount of the Notes (the "Redemption Amount") will depend upon the performance of the Basket and the dividends paid on the Reference Stocks. The Redemption Amount will equal:

(\$1,000 × the Basket Level Percentage x the Participation Rate)

Basket Level Percentage. The Basket Level Percentage will equal the sum of the Weighted Reference Stock Performances.

Weighted Reference Stock Performance. For each Reference Stock, the product of (a) its Reference Stock Performance and (b) its Reference Stock Weighting.

Reference Stock Performance. The Reference Stock Performance will measure the change in value of each Reference Stock over the term of the Notes, including the payment of certain dividends. For each Reference Stock, the Reference Stock Performance will equal (a) the applicable Final Share Price divided by (b) the applicable Initial Share Price, expressed as a percentage.

Initial Share Price. For each Reference Stock, the "Initial Share Price" is its closing price on the Trade Date, as determined by the Calculation Agent.

Final Share Price. For each Reference Stock, the sum of (a) its closing price on the Valuation Date and (b) the Dividend Amount for that Reference Stock, as determined by the Calculation Agent.

Dividend Amount. An amount in U.S. dollars equal to 100% of the gross cash distributions (including ordinary and extraordinary dividends) per share of Reference Stock declared by the applicable Reference Stock Issuer where the date that the applicable Reference Stock has commenced trading ex-dividend on its primary U.S. securities exchange as to each relevant distribution occurs from (and including) the first trading day after the Trade Date, as determined by the Calculation Agent, and until the Valuation Date. The Calculation Agent may adjust the applicable Dividend Amount in its commercially reasonable judgment if a dividend that is actually paid to holders of the applicable Reference Stock differs from the amount declared, whether in amount or as to the date of payment.

Trading Day. When we refer to a trading day with respect to any Reference Stock, we mean a day on which the principal trading market for that Reference Stock is open for trading, as determined by the Calculation Agent.

Valuation Dates

The scheduled Valuation Date is set forth above. If the Valuation Date is not a trading day as to any Reference Stock, that Valuation Date will be postponed as to that Reference Stock to the next trading day. If the Calculation Agent determines that a market disruption event occurs or is continuing on the Valuation Date, the Final Share Price of the

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applicable Reference Stock or Reference Stocks will be determined according to the calculation in "--- Market Disruption Events" below.

Maturity Date

The maturity date will be August 26, 2021, unless that date is not a business day, in which case the maturity date will be the next following business day. The maturity date will be postponed by the same number of business days as the Valuation Date may be postponed, as provided herein. However, no interest will be payable as a result of that postponement.

Market Disruption Events

If a market disruption event occurs or is continuing on the Valuation Date as to any Reference Stock, its Final Share Price will equal its closing price on the first trading day following the Valuation Date on which the Calculation Agent determines that a market disruption event is not continuing. If a market disruption event as to that Reference Stock occurs or is continuing on each trading day to and including the tenth trading day following the Valuation Date, its Final Share Price 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 Final Share Price that would have prevailed in the absence of the market disruption event. If the Valuation Date is postponed as a result of a market disruption event, the maturity date of the Notes will be postponed by the same number of business days.

Anti-Dilution Adjustments

For any Reference Stock, the Calculation Agent will adjust the Initial Share Price if certain events occur with respect to that Reference Stock, as described in the product prospectus supplement. However, no adjustments will be made as a result of an "extraordinary dividend," as such dividends will be reflected in the applicable "Dividend Amount," as described above.

Default Amount on Acceleration

If an event of default with respect to the Notes shall have occurred and be continuing, the amount declared due and payable on the Notes upon any acceleration of the Notes will be determined by the Calculation Agent and will be an amount in cash per \$1,000 in principal amount of the Notes equal to the Redemption Amount, calculated as if the date of acceleration were the Valuation Date.

Role of Calculation Agent

The Calculation Agent will make all determinations regarding the prices of the Reference Stocks, the Redemption Amount, the Dividend Amounts of the Reference Stocks, trading days, business days, market disruption events, any required antidilution adjustments, the default amount, and the amounts payable on your Notes. Absent manifest error, all determinations of the Calculation Agent will be final and binding on you and us, without any liability on the part of the Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any of the above determinations or calculations by the Calculation Agent.

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THE REFERENCE STOCKS

Companies with securities registered under the Exchange Act, such as the Reference Stock Issuers, are required to file periodically financial and other information specified by the SEC. Information provided to or filed with the SEC can be obtained through the SEC's website at http://www.sec.gov. Information on that website is not included or incorporated by reference in this pricing supplement.

This pricing supplement relates only to the Notes offered hereby and does not relate to any Reference Stocks or other securities of any Reference Stock Issuer. We derived all disclosures in this pricing supplement regarding the Reference Stock Issuers from publicly available documents described in the preceding paragraph. In connection with the offering of the Notes, none of us, Raymond James, or our respective affiliates have participated in the preparation of such documents or made any due diligence inquiry with respect to any Reference Stock Issuer. None of us, Raymond James, or any of our respective affiliates makes any representation that such publicly available documents or any other publicly available information regarding any Reference Stock Issuer is current, accurate or complete. None of those documents shall be deemed to be incorporated by reference into this pricing supplement.

The composition of the Basket and the identity of the Reference Stocks were selected by Raymond James. None of us, Raymond James or any of our respective affiliates endorses those stocks in connection with this offering, and none of those entities makes any representation as to the performance of any Reference Stock or the Basket.

Investors should review recent prices of the Reference Stocks prior to making an investment decision with respect to the Notes.

Analog Devices, Inc. (ADI)

Analog Devices, Inc. designs, manufactures, and markets integrated circuits used in analog and digital signal processing. The company's products are used in communications, computer, industrial, instrumentation, military, aerospace, automotive and consumer electronics applications.

The company's common stock is listed on the Nasdaq Global Select Market (the "Nasdaq") under the ticker symbol "ADI."

Amazon.com, Inc. (AMZN)

Amazon.com, Inc. is an online retailer that offers a wide range of products. The company's products include books, music, videotapes, computers, electronics, home and garden, and numerous other products. The company offers personalized shopping services, Web-based credit card payment, and direct shipping to customers.

The company's common stock is listed on the Nasdaq under the ticker symbol "AMZN."

Aptiv PLC (APTV)

Apriv PLC manufactures and distributes vehicle components. The company produces connector wires, safety restraint systems, pin headers, and underwater towed arrays for automobile and commercial vehicles.

The company's ordinary shares are listed on the New York Stock Exchange (the "NYSE") under the ticker symbol "APTV."

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Arrow Electronics, Inc. (ARW)

Arrow Electronics, Inc. distributes electronic components and computer products to industrial and commercial customers. The company offers a variety of products including computer systems, peripherals, software, and mass storage products to original equipment manufacturers and commercial customers.

The company's common stock is listed on the NYSE under the ticker symbol "ARW."

salesforce.com, inc. (CRM)

salesforce.com, Inc. designs and develops enterprise software. The company supplies a customer relationship management service to businesses worldwide, providing a technology platform for customers and developers to build and run business applications. Clients use salesforce.com to manage their customer, sales, and operational data.

The company's common stock is listed on the NYSE under the ticker symbol "CRM."

Cisco Systems, Inc. (CSCO)

Cisco Systems, Inc. designs, manufactures, and sells Internet Protocol (IP)-based networking and other products related to the communications and information technology (IT) industry, and provides services associated with these products and their use.

The company's common stock is listed on the Nasdaq under the ticker symbol "CSCO."

Cubic Corporation (CUB)

Cubic Corporation, through its defense group, provides instrumented air and ground combat training systems, battle command training, and simulation support for military forces. The company also produces avionics, data links and communications products.

The company's common stock is listed on the NYSE under the ticker symbol "CUB."

Dell Technologies Inc. (DELL)

Dell Technologies Inc. provides computer products. The company offers laptops, desktops, tablets, workstations, servers, monitors, printers, gateways, software, storage and networking products.

The company's common stock is listed on the NYSE under the ticker symbol "DELL."

Fortinet, Inc. (FTNT)

Fortinet, Inc. provides network security solutions. The company offers network security appliances, related software, and subscription services. The company's systems integrate a suite of security technologies, including firewall, VPN, antivirus, intrusion prevention, web filtering, antispam and traffic shaping.

The company's common stock is listed on the Nasdaq under the ticker symbol "FTNT."

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Microsoft Corporation (MSFT)

Microsoft Corporation develops, manufactures, licenses, sells, and supports software products. The company offers operating system software, server application software, business and consumer applications software, software development tools, and Internet and intranet software. The company also develops video game consoles and digital music entertainment devices.

The company's common stock is listed on the Nasdaq under the ticker symbol "MSFT."

Netflix, Inc. (NFLX)

Netflix, Inc. is an Internet subscription service for watching television shows and movies. Subscribers can watch unlimited television shows and movies streamed over the Internet to their televisions, computers, and mobile devices. In the United States, subscribers can receive standard definition DVDs and Blu-ray Discs delivered to their homes.

The company's common stock is listed on the Nasdaq under the ticker symbol "NFLX."

Pure Storage, Inc. (PSTG)

Pure Storage, Inc. provides enterprise storage solutions. The company offers flash enterprise arrays for high performance workloads, including server consolidation, virtualization desktop database, and cloud computing.

The company's common stock is listed on the NYSE under the ticker symbol "PSTG."

QUALCOMM Incorporated (QCOM)

QUALCOMM Incorporated is a multinational semiconductor and telecommunications equipment company. The company develops and delivers digital wireless communications products and services based on CDMA digital technology.

The company's common stock is listed on the Nasdaq under the ticker symbol "QCOM."

Rapid7, Inc. (RPD)

Rapid7, Inc. provides security data and analytic software solutions. The company offers services to collect, contextualize and analyze security data to reduce threat exposure and detect compromise.

The company's common stock is listed on the Nasdaq Global Market under the ticker symbol "RPD."

EchoStar Corporation (SATS)

EchoStar Corporation operates satellite communication infrastructures. The company provides satellite broadband communication solutions to media and broadcast organizations, pay-TV operators, enterprise customers and U.S. government and military service providers.

The company's common stock is listed on the Nasdaq under the ticker symbol "SATS."

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SYNNEX Corporation (SNX)

SYNNEX Corporation provides information technology supply chain services. The company offers services to original equipment manufacturers and software publishers. The company offers product distribution, related logistics, and contract assembly services.

The company's common stock is listed on the NYSE under the ticker symbol "SNX."

Skyworks Solutions, Inc. (SWKS)

Skyworks Solutions, Inc., a wireless semiconductor company, designs and manufactures radio frequency and complete semiconductor system solutions for mobile communications applications. The company provides front-end modules, radio frequency subsystems, and system solutions to wireless handset and infrastructure customers worldwide.

The company's common stock is listed on the Nasdaq under the ticker symbol "SWKS."

AT&T Inc. (T)

AT&T Inc., through its subsidiaries and affiliates, provides local and long-distance phone service, wireless and data communications, Internet access and messaging, IP-based and satellite television, security services, telecommunications equipment, and directory advertising and publishing.

The company's common stock is listed on the NYSE under the ticker symbol "T."

Veeva Systems Inc. (VEEV)

Veeva Systems Inc. provides cloud-based business services. The company offers enterprise applications, multichannel platform, customer relationship and content management solutions.

The company's common stock is listed on the NYSE under the ticker symbol "VEEV."

VMware, Inc. (VMW)

VMware, Inc. provides virtualization solutions. The company offers products that addresses a range of IT problems, which include cost and operational inefficiencies, business continuity, software lifecycle management and desktop management.

The company's common stock is listed on the NYSE under the ticker symbol "VMW."

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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 September 10, 2018 under "Supplemental Discussion of U.S. Federal Income Tax Consequences."

Under current Internal Revenue Service guidance, withholding on "dividend equivalent" payments (as discussed in the product supplement), if any, will apply to Notes that are issued as of the date of this pricing supplement if such Notes are "delta-one" instruments. Based on our determination that the Notes are delta-one instruments, non-U.S. holders will be subject to withholding on dividend equivalent payments, if any, under the Notes. We will not pay additional amounts in respect of any dividend equivalent withholding.

The accompanying product prospectus supplement notes that FATCA withholding on payments of gross proceeds from a sale or redemption of the Notes will only apply to payments made after December 31, 2018. That discussion is modified to reflect regulations proposed by the U.S. Treasury Department in December 2018 indicating an intent to eliminate the requirement under FATCA of withholding on gross proceeds of the disposition of financial instruments. The U.S. Treasury Department has indicated that taxpayers may rely on these proposed regulations pending their finalization. Prospective investors are urged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in the Notes.

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SUPPLEMENTAL PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

We, either ourselves or through RBCCM as agent, have entered into an arrangement with Raymond James, in which Raymond James will act as an agent in connection with the distribution of the Notes. Such distribution may occur on or subsequent to the issue date. The Notes sold by Raymond James to investors will be offered at the issue price of \$1,000 per Note. Raymond James will receive the compensation set forth on the cover page of this pricing supplement.

Delivery of the Notes will be made against payment for the Notes on February 26, 2020, which is the third (3rd) business day following the Trade Date (this settlement cycle being referred to as "T+3"). See "Plan of Distribution" in the prospectus dated September 7, 2018. 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 September 7, 2018.

We expect to deliver the Notes on a date that is greater than two business days following the Trade Date. Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade the Notes more than two business days prior to the original issue date will be required to specify alternative arrangements to prevent a failed settlement.

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.

Each of RBCCM and any other broker-dealer offering the Notes have not offered, sold or otherwise made available and will not offer, sell or otherwise make available any of the Notes to, any retail investor in the European Economic Area ("EEA") and the U.K. For these purposes, the expression "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes, and a "retail investor" means a person who is one (or more) of: (a) a retail client, as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); or (b) a customer, within the meaning of Directive (EU) 2016/97, as amended, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (c) not a qualified investor as defined in Regulation (EU) 2017/1129)(the "Prospectus Regulation"). Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the Notes or otherwise making them available to retail investors in the EEA and the U.K. has been prepared, and therefore, offering or selling the Notes or otherwise making them available to any retail investor in the EEA and the U.K. may be unlawful under the PRIIPs Regulation.

STRUCTURING THE NOTES

The Notes are our debt securities, the return on which is linked to the performance of the Basket. 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 that is included on the cover page of 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 Stocks, 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 our costs to distribute and structure the Notes, and our estimated hedging costs. These factors resulted in the initial estimated value for the Notes on the Trade 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 September 7, 2018, which has been filed as Exhibit 5.1 to Royal Bank's Form 6-K filed with the SEC dated September 7, 2018.

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 September 7, 2018, which has been filed as Exhibit 5.2 to the Bank's Form 6-K dated September 7, 2018.

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