

ROYAL BANK OF CANADA

(a Canadian chartered bank)

2nd Supplementary Notes Base Prospectus dated May 31, 2017

Pursuant to the Programme for the Issuance of Securities

Pages i to 141 (inclusive) of the Notes Base Prospectus dated January 31, 2017 (the "Notes Base Prospectus"), as supplemented by the 1st Supplementary Prospectus dated February 28, 2017 of Royal Bank of Canada ("**RBC**" or the "**Issuer**") comprise a base prospectus (the "**Base Prospectus**") for the purposes of Article 5.4 of the Prospectus Directive (as defined herein) in respect of notes ("**PD Notes**" or "**Notes**") to be offered to the public in the Relevant Member States (as defined in the Base Prospectus) and/or to be admitted to the Official List of the Financial Conduct Authority (in its capacity as competent authority for the purposes of Part VI of the Financial Services and Markets Act 2000 as amended, the "**UK Listing Authority**") and admitted to trading on the Regulated Market of the London Stock Exchange plc (the "**London Stock Exchange**"). Pages 142 to 213 (inclusive) of the Notes Base Prospectus, as supplemented by the 1st Supplementary Offering Circular dated February 28, 2017 comprise an offering circular (the "**Offering Circular**"), which has been prepared by the Issuer in connection with the issue of Notes other than PD Notes ("**Non PD Notes**"). The Offering Circular has not been reviewed or approved by the UK Listing Authority and does not constitute a base prospectus for purposes of the Prospectus Directive.

SUPPLEMENTARY PROSPECTUS

Pages 1 to 5 inclusive of this supplement (the "2nd **Supplementary Prospectus**") constitute a supplementary prospectus for purposes of Section 87G of the *Financial Services and Markets Act 2000* (the "**FSMA**") prepared in connection with the programme for the issuance of securities established by RBC (the "**Programme**"). The information on page 5 of this supplement constitutes a supplementary offering circular and does not form part of this 2nd Supplementary Prospectus.

Terms defined in the Base Prospectus have the same meaning when used in this 2nd Supplementary Prospectus. The 2nd Supplementary Prospectus is supplemental to, and shall be read in conjunction with, the Base Prospectus and any other supplements to the Base Prospectus issued by RBC.

RBC accepts responsibility for the information in this 2nd Supplementary Prospectus. To the best of the knowledge of RBC, having taken reasonable care to ensure that such is the case, the information contained in this 2nd Supplementary Prospectus is in accordance with the facts and does not omit anything likely to affect the import of such information.

The purpose of this 2nd Supplementary Prospectus is to (a) incorporate by reference in the Base Prospectus the Issuer's unaudited interim condensed consolidated financial statements (the "Second Quarter 2017 Financial Statements"), together with Management's Discussion and Analysis (the "Second Quarter 2017 MD&A") for the three- and six- month periods ended April 30, 2017 set out in the Issuer's Second Quarter 2017 Report to Shareholders (the "Second Quarter 2017 Report to Shareholders"); (b) include a new statement in respect of no significant change; (c) update the Issuer's rating disclosure in light of the recent ratings downgrade by Moody's Investors Service, Inc. ("Moody's USA"); (d) following the publication of the Second Quarter 2017 Report to Shareholders, update paragraph 3 of the section entitled "General Information and Recent Developments" in the Base Prospectus regarding governmental, legal or arbitration proceedings which may have, or have had, a significant effect on the financial position or profitability of the Issuer or of the Issuer and its subsidiaries taken as a

whole; and (e) amend and restate the Programme Summary to reflect financial information incorporated by reference and include certain of the other matters noted above.

To the extent that there is any inconsistency between (a) any statement in this 2nd Supplementary Prospectus or any statement incorporated by reference into the Base Prospectus by this 2nd Supplementary Prospectus and (b) any other statement in, or incorporated by reference in, the Base Prospectus, the statements in (a) above will prevail.

Save as disclosed in this 2nd Supplementary Prospectus, no significant new factor, material mistake or inaccuracy relating to the information included in the Base Prospectus which is capable of affecting the assessment of PD Notes issued under the Programme has arisen or been noted, as the case may be, since the publication of the 1st Supplementary Notes Base Prospectus dated February 28, 2017.

DOCUMENTS INCORPORATED BY REFERENCE

RBC's Second Quarter 2017 Financial Statements, together with the Second Quarter 2017 MD&A, set out on pages 2 through 78 of the Second Quarter 2017 Report to Shareholders are, by virtue of this 2nd Supplementary Prospectus, incorporated in, and form part of, the Base Prospectus. The remainder of the Second Quarter 2017 Report to Shareholders is either covered elsewhere in the Base Prospectus or is not relevant for investors.

The Second Quarter 2017 Report to Shareholders, which includes the Second Quarter 2017 Financial Statements and Second Quarter 2017 MD&A, has been filed with Morningstar plc (appointed by the Financial Conduct Authority to act as the National Storage Mechanism) and is available for viewing at *http://www.morningstar.co.uk/uk/NSM* and has been announced via the Regulatory News Service operated by the London Stock Exchange.

For the avoidance of doubt, any document incorporated by reference in the Second Quarter 2017 Financial Statements, Second Quarter 2017 MD&A and Second Quarter 2017 Report to Shareholders shall not form part of this 2nd Supplementary Prospectus.

Copies of this 2nd Supplementary Prospectus, the Base Prospectus and the documents incorporated by reference in either of these can be (i) viewed on the website of the Regulatory News Service operated by the London Stock Exchange at *http://www.londonstockexchange.com/exchange/news/market-news/market-news-home.html* under the name of the Issuer and the headline "Publication of Prospectus"; and (ii) obtained on written request and without charge from the Issuer at 155 Wellington St. W, 13th Floor, Toronto, Ontario, Canada M5V 3K7, Attention: Senior Vice President, Performance Management & Investor Relations, and (b) the office of the Issuing and Paying Agent, The Bank of New York Mellon, London Branch, One Canada Square, London E14 5AL, United Kingdom, Attention: Manager, EMEA Corporate & Sovereign. Certain of the documents incorporated by reference in the Base Prospectus or this 2nd Supplementary Prospectus may be viewed by accessing the Issuer's disclosure documents through the Internet (a) at the Canadian System for Electronic Document Analysis and Retrieval at www.sedar.com (an internet based securities regulatory filing system), and (b) at the U.S. Securities and Exchange Commission's website at *http://www.sec.gov*, which websites are not incorporated in, and do not form part of, the Base Prospectus.

STATEMENT OF NO SIGNIFICANT CHANGE

Since April 30, 2017, the date of the most recently published unaudited interim condensed consolidated financial statements of the Issuer, there has been no significant change in the financial or trading position of the Issuer and its subsidiaries taken as a whole.

ISSUER RATINGS

On May 10, 2017, Moody's USA downgraded the long term ratings of six Canadian banks and their affiliates, including the Issuer, by one notch. In the Issuer's case, its long term senior debt rating was downgraded from Aa3 to A1 and its bank subordinated debt rating was downgraded from A3 to Baa1, while the rating of its Basel III-compliant subordinated notes issued after January 1, 2014 was downgraded from Baa1 to Baa2. Moody's USA's preferred shares rating was also downgraded from Baa2 to Baa3. The Issuer's other credit ratings (including its short term rating) and all relevant rating outlooks remained unchanged.

Moody's USA (a "**non-EU CRA**") is not established or regulated in the European Union or certified under the CRA Regulation. However, Moody's Investors Service Ltd., which is an affiliate of Moody's USA, established in the European Union and registered under the CRA Regulation, has endorsed its affiliated non-EU CRA.

According to the Moody's rating system, obligations rated A are judged to be of upper-medium quality and are subject to very low credit risk. Moody's appends numerical modifiers 1, 2 and 3 to each generic ratings classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking and the modifier 3 indicates a ranking in the lower end of that generic rating category.

AMENDMENT TO STATEMENT REGARDING GOVERNMENTAL, LEGAL OR ARBITRATION PROCEEDINGS

Paragraph 3 of the section entitled "General Information and Recent Developments" on page 136 of the Base Prospectus is hereby deleted in its entirety and replaced with the following:

"Other than the matter disclosed in Note 24 of the Issuer's 2016 Audited Consolidated Financial Statements set out on page 190 of the Issuer's 2016 Annual Report, and the matters disclosed (with the exception of the subsection entitled "Other matters") in Note 27 to the 2016 Audited Consolidated Financial Statements set out on pages 194 and 195 of the Bank's 2016 Annual Report and incorporated by reference herein, as updated by the matter disclosed in Note 9 of the Issuer's Second Quarter 2017 Financial Statements set out on page 74 of the Issuer's Second Quarter 2017 Report to Shareholders, and the matters disclosed in Note 12 of the Issuer's Second Quarter 2017 Financial Statements set out on page 75 of the Issuer's Second Quarter 2017 Report to Shareholders and incorporated by reference herein, there are no, nor have there been any governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which the Issuer is aware) which may have, or have had during the twelve months prior to the date of this document, individually or in the aggregate, a significant effect on the financial position or profitability of the Issuer or of the Issuer and its subsidiaries taken as a whole."

UPDATE TO THE SUMMARY TO THE PROGRAMME

The Summary to the Programme included in the Base Prospectus is made up of disclosure requirements known as "Elements". These elements are numbered in Sections A to E (A.1 - E.7).

Following the release of RBC's Second Quarter 2017 Report to Shareholders, Element B.12 of the Summary to the Programme is updated as set out below:

Info	ange and no significant change tements:	With the exception of the figures for return on common equity, information in the tables below for the years ended October 31, 2016 and 2015 and for the six-month periods ended April 30, 2017 and 2016 have been extracted from the Issuer's 2016 audited consolidated financial statements and the unaudited interim condensed consolidated financial statements for the six- month period ended April 30, 2017, respectively, which have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board and are incorporated by reference in the Base Prospectus. The amounts under return on common equity for the years ended October 31, 2016 and 2015 and for the six-month periods ended April 30, 2017 and 2016 have been extracted from the Bank's 2016 Management's Discussions and Analysis and Second Quarter 2017 Report to Shareholders, respectively:
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Selected Consolidated Balance Sheet Information

	As at April 30, 2017	As at October 31, 2016	As at October 31, 2015
		ars)	
Loans, net of allowance for loan losses	532,262	521,604	472,223
Total assets	1,202,919	1,180,258	1,074,208
Deposits	785,583	757,589	697,227
Other liabilities	333,426	340,314	304,845
Subordinated debentures	9,646	9,762	7,362
Trust capital securities	0	0	0
Preferred share liabilities	0	0	0
Non-controlling interest in subsidiaries	598	595	1,798
Equity attributable to shareholders	72,570	71,017	62,146

	Six months ended April 30, 2017	Six months ended April 30, 2016	Year ended October 31, 2016	Year endec October 31, 2015
	(in millions of Cana	adian dollars except per	share amounts and percen	tage amounts)
Net interest income	8,522	8,221	16,531	14,77
Non-interest income	11,334	10,664	21,874	20,550
Total revenue	19,856	18,885	38,405	35,32
Provision for credit losses	596	870	1,546	1,097
Insurance policyholder benefits, claims and acquisition expense	1,273	1,817	3,424	2,96
Non-interest expense	10,444	9,847	20,136	18,638
Net Income	5,836	5,020	10,458	10,026
Earnings per share				
– basic	\$3.84	\$3.26	\$6.80	\$6.7
- diluted	\$3.82	\$3.25	\$6.78	\$6.73
Return on common equity	17.7%	15.8%	16.3%	18.6%
	Since	October 31, 2016, th	nt or material advers here has been no mate er and its subsidiaries	erial adverse char
		al or trading position	re has been no signif of the Issuer and its s	

Element B.17 of the Summary to the Programme, in respect of Moody's USA, is updated as set out below:

B.17	Credit Ratings Assigned to the Issuer or its Debt Securities at the Request of or in Cooperation with the Issuer:	The credit ratings assigned to the Issuer are (i) A1 (negative outlook) (long term senior debt), Baa1 (subordinated debt) ¹ and P-1 (short-term debt) and Baa3 (hyb) (preferred shares) by Moody's Investors Services, Inc. (" Moody's USA "), (ii) AA- (negative outlook) (long term senior debt), A-1+ (short-term debt), A (subordinated debt) ¹ and BBB+ (preferred shares) ² by Standard & Poor's Financial Services LLC (" S&P USA "); (iii) AA (negative outlook) (long term senior debt), AA- (subordinated debt) and F1+ (short-term debt) by Fitch Ratings, Inc. (" Fitch USA "); and (iv) AA (long term senior debt), AA (low) (subordinated debt) ¹ and R-1 (high) (short-term debt), each with a negative outlook, and Pfd-2 (high) (stable outlook) (preferred shares) ² by DBRS Limited (" DBRS ").
		¹ The Issuer's Basel III-compliant subordinated notes issued after January 1, 2014 have different ratings from these ratings from all rating agencies except Fitch USA. They are rated "A-" by S&P USA, "Baa2 (hyb)" by Moody's USA and "A (low)" (stable outlook) by DBRS. ² The Issuer's Basel III-compliant preferred shares issued after January 1, 2014 received different credit ratings from these ratings from both DBRS and S&P USA. They are rated "Pfd-2" (stable outlook) by DBRS; "P-2" by S&P USA using the S&P Canadian scale for preferred shares and "BBB" using S&P USA's global scale for preferred shares.
		The Senior Notes issuable under the Programme have been generally rated A1 (P-1 for short term debt) by Moody's Canada Inc. (" Moody's Canada ") and AA- by S&P Global Ratings, acting through Standard & Poor's Rating Services (Canada), a business unit of S&P Global Canada Corp. (" S&P Canada "). <i>Issue specific summary</i>
		[The Senior Notes to be issued [have been/are expected to be] rated: [Moody's Canada: [•]] [S&P Canada: [•]] [The Senior Notes to be issued have not been specifically rated.]

SUPPLEMENTARY OFFERING CIRCULAR

This page 6 of this Supplement (the "**2**nd **Supplementary Offering Circular**") constitutes a supplement to the Offering Circular and is prepared in connection with the Programme for the Issuance of Securities established by RBC.

Terms defined in the Offering Circular have the same meaning when used in this 2nd Supplementary Offering Circular. The 2nd Supplementary Offering Circular is supplemental to, and shall be read in conjunction with, the Offering Circular and any other prior supplements to the Offering Circular issued by RBC (together, the "**Offering Circular**").

NEITHER THE OFFERING CIRCULAR NOR THIS 2ND SUPPLEMENTARY OFFERING CIRCULAR TO THE OFFERING CIRCULAR HAVE BEEN REVIEWED OR APPROVED BY THE UK LISTING AUTHORITY AND THE OFFERING CIRCULAR DOES NOT CONSTITUTE A PROSPECTUS FOR THE PURPOSE OF DIRECTIVE 2003/71/EC AS AMENDED.

RBC accepts responsibility for the information in this 2^{nd} Supplementary Offering Circular. To the best of the knowledge of RBC, having taken reasonable care to ensure that such is the case, the information contained in this 2^{nd} Supplementary Offering Circular is in accordance with the facts and does not omit anything likely to affect the import of such information.

This 2nd Supplementary Offering Circular is supplemental to, and should be read in conjunction with, the Offering Circular and the documents incorporated by reference therein. This 2nd Supplementary Offering Circular is to be read in conjunction with the following sections of the 2nd Supplementary Prospectus (as amended herein):

- (i) Documents Incorporated by Reference;
- (ii) Statement of No Significant Change; and
- (iii) Issuer Ratings; and
- (iv) Amendment to Statement Regarding Governmental, Legal or Arbitration Proceedings

which will be deemed to be incorporated by reference herein, save that references to "**Base Prospectus**" shall be deemed to be to the "**Offering Circular**" and references to "**2**nd **Supplementary Prospectus**" shall be deemed to be to the "**2**nd **Supplementary Offering Circular**".

To the extent that there is any inconsistency between (a) any statement in this 2nd Supplementary Offering Circular or any statement incorporated by reference into the Offering Circular by this 2nd Supplementary Offering Circular and (b) any other statement in, or incorporated by reference in, the Offering Circular, the statements in (a) above will prevail.

Save as disclosed in this 2nd Supplementary Offering Circular, no significant new factor, material mistake or inaccuracy relating to the information included in the Offering Circular which is capable of affecting the assessment of Non-PD Notes issued under the Programme has arisen or been noted, as the case may be, since the publication of the Offering Circular.