ROYAL BANK OF CANADA

(a Canadian chartered bank)

2nd Supplementary Notes Base Prospectus dated December 23, 2019

Pursuant to the Programme for the Issuance of Securities

Pages i to 175 (inclusive) of the Notes Base Prospectus dated July 5, 2019, as supplemented by the 1st Supplementary Prospectus dated September 2, 2019 (the "**Notes Base Prospectus**") of Royal Bank of Canada ("**RBC**" or the "**Issuer**") comprise a base prospectus (the "**Base Prospectus**") for the purposes of Article 5.4 of Directive 2003/71/EC (as amended, the "**Prospectus Directive**") 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) and admitted to trading on the Regulated Market of the London Stock Exchange plc (the "**London Stock Exchange**"). Pages 176 to 259 (inclusive) of the Notes Base Prospectus, as supplemented by the 1st Supplementary Offering Circular dated September 2, 2019 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 Financial Conduct Authority and does not constitute a base prospectus for purposes of the Prospectus Directive.

SUPPLEMENTARY PROSPECTUS

Pages 1 to 15 inclusive of this supplement (the "**2nd Supplementary Prospectus**") constitute a supplementary prospectus for the purposes of the Prospectus Directive and for the purposes of Section 87G of the *Financial Services and Markets Act 2000*, as that provision stood immediately prior to July 21, 2019 (the "**FSMA**") prepared in connection with the programme for the issuance of securities established by RBC (the "**Programme**"). The information on page 15 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 latest audited consolidated financial statements and management's discussion and analysis thereof and 2019 AIF (as defined below); (b) include a new statement in respect of no material adverse change and significant change; (c) in light of the issuance of the 2019 MD&A (as defined below), revise the Top and emerging risk factors, Operational risk, Legal and regulatory environment risk, and Systemic risk factors; (d) following the publication of the 2019 Annual Report, update paragraph 3 of the section entitled "General Information" 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; (e) update Element B.4b of the Programme Summary to reflect new disclosure incorporated by reference, Element B.12 of the Programme Summary to reflect financial information incorporated by reference and Element D.2 of the Programme Summary to reflect the changes to the Issuer risk factors by virtue of this 2nd Supplementary Prospectus.

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 Notes Base Prospectus.

For the avoidance of doubt, all amendments to the Registration Document noted herein are only for the purposes of the Base Prospectus and do not constitute a supplement to the Registration Document itself.

DOCUMENTS INCORPORATED BY REFERENCE

The following documents are, by virtue of this 2nd Supplementary Prospectus, incorporated in, and form part of, the Base Prospectus:

(i) RBC's Annual Information Form dated December 3, 2019 (the "**2019 AIF**");

(ii) the following sections of RBC's 2019 Annual Report (the "**2019 Annual Report**") for the year ended October 31, 2019:

  (a) the Management's Discussion and Analysis on pages 12 through 109 (the "**2019 MD&A**"); and

  (b) the audited annual consolidated financial statements, which comprise the consolidated balance sheets as at October 31, 2019 and October 31, 2018, and the consolidated statements of income, statements of comprehensive income, statements of changes in equity, and statements of cash flows for each of the years in the two-year period ended October 31, 2019, and the notes, which comprise a summary of significant accounting policies and other explanatory information, prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board on pages 111 through 211, together with Management's Report on Internal Control over Financial Reporting as of October 31, 2019, the Independent Auditor's Report and the Report of Independent Registered Public Accounting Firm thereon on pages 112, 113 and 117, respectively, (the "**2019 Audited Consolidated Financial Statements**"),

the remainder of the 2019 Annual Report is either not relevant for prospective investors or covered elsewhere in this 2nd Supplementary Prospectus and is not incorporated by reference.

The 2019 AIF, the 2019 Annual Report, which includes the 2019 Audited Consolidated Financial Statements and the 2019 MD&A have been filed with Morningstar plc (appointed by the Financial Conduct Authority to act as the National Storage Mechanism), are available for viewing at *http://www.morningstar.co.uk/uk/NSM* and have 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 2019 AIF, the 2019 Audited Consolidated Financial Statements and the 2019 MD&A 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 (a) the Issuer at 20th Floor, 200 Bay Street, Toronto, Ontario, Canada M5J 2J5, Attention: Senior Vice President, Wholesale Finance and 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 United States Securities and Exchange Commission's website at *http://www.sec.gov.* These websites are not incorporated in, and do not form part of, the Base Prospectus.

STATEMENT OF NO SIGNIFICANT CHANGE

Since October 31, 2019, the last day of the financial period in respect of which the most recent audited consolidated financial statements of the Issuer have been prepared, there has been no significant change in the financial position of the Issuer and its subsidiaries taken as a whole.

STATEMENT OF NO MATERIAL ADVERSE CHANGE

Since October 31, 2019, the date of its last published audited consolidated financial statements, there has been no material adverse change in the prospects of the Issuer and its subsidiaries taken as a whole.

RISK FACTORS

The section entitled "Risk Factors" in the Registration Document incorporated by reference in the Prospectus is amended by:

(i) Replacing the "Top and emerging risks" section with the following:

An important component of the Issuer's risk management approach is to ensure that top risks and emerging risks, as they evolve, are identified, managed, and incorporated into the Issuer's existing risk management assessment, measurement, monitoring and escalation processes. These practices ensure a forward-looking risk assessment is maintained by management in the course of business development and as part of the execution of ongoing risk oversight responsibilities. Top and emerging risks are discussed by the Issuer's senior management and the Board on a regular basis.

The Issuer has developed separate definitions for Top Risks and Emerging Risks, as well as supplementary internal guidance, to support enterprise-wide identification and assessment of all material risks, including those that are not readily apparent.

A Top Risk is a risk already identified and well understood that could materially impact the Issuer's financial results, reputation, business model, or strategy in the short to medium term. An Emerging Risk is one that could materially impact the Issuer's financial results, reputation, business model, or strategy, but is distinguished by a lack of clarity with respect to the probabilities, impacts, timing, and/or ranges of potential outcomes.

The tables below set out the risk factors that the Issuer currently considers its top and emerging risks, respectively, but it should be highlighted that the risks set out in these tables are not exhaustive and investors should consider all the risk factors disclosed in the Risk Factors section.

Top Risks	Description
Information Technology and Cyber Risks	Information technology (IT) and cyber risks remain as top risks, not only for the financial services sector, but for other industries worldwide. The Issuer is subject to heightened risks in the form of cyber-attacks, data breaches, cyber extortion and similar compromises, due to the size, scale, and global nature of the Issuer's operations, its heavy reliance on the internet to conduct day-to-day business activities, its intricate technological infrastructure and the Issuer's use of third party service providers. Additionally, clients' use of personal devices can create further avenues for potential cyber-related incidents as the Issuer has little or no control over the safety of these devices. As the volume and sophistication of cyber-attacks continue to increase, the resulting implications could include business interruptions, service disruptions, financial loss, theft of intellectual property and confidential information, litigation, enhanced regulatory attention and penalties, and reputational damage. Furthermore, the adoption of emerging technologies, such as cloud computing, artificial intelligence (AI) and robotics, call for continued focus and investment to manage the Issuer's risks effectively.
Privacy, Data and Third Party Related Risks	The management, use, and protection of data is a top risk given the high value attributed to data and the potential exposure to operational risks, reputational risks, and regulatory compliance risks. The growing importance of effective privacy and information management practices and controls has been demonstrated by the pace and size of recent regulatory enforcement. Further, as the Issuer continues to partner with third party service providers and adopt new technologies and business models (e.g., cloud computing), the Issuer's potential exposure to these risks increases.
Geopolitical Uncertainty	Persisting trade tensions, policy changes, and uncertainties pertaining to Brexit and the political direction of the U.S., U.K. and Europe, have continued to impact global economic growth prospects and market sentiment. The Canadian economy is vulnerable to continued trade tensions given the country's trading relationships with the U.S. and China. Tensions also remain elevated between China and the U.S. as they continue to negotiate a trade deal. In addition, the changing political landscape in Hong Kong and ongoing tensions in the Middle East add further to global and economic uncertainty.

Canadian Housing and Household Indebtedness	The Government of Canada, and a number of provincial governments, have introduced measures to respond to concerns related to housing affordability in certain markets and elevated levels of Canadian household debt. Lower mortgage rates, along with a solid labour market and strong population growth, helped spark a recovery in the Canadian housing market in 2019. The turnaround, however, has been slower in Western Canada due to the presence of additional cooling measures in British Columbia, coupled with more modest economic growth in Alberta and Saskatchewan. Low interest rates should help ease upward pressures on household debt service ratios but should interest rates begin to rise, this could have materially negative credit implications for the Issuer's broader consumer lending activities.
Regulatory Changes	The Issuer operates in multiple jurisdictions, and the continued introduction of new or revised regulations leads to increasing focus across the organization on meeting higher regulatory requirements across a number of different markets. Financial and other reforms coming into effect, across multiple jurisdictions, such as the Canadian anti-money laundering regulations and Interest rate benchmark reform, continue to provide challenges and impact the Issuer's operations and strategies.

Emerging Risks	**Description**
Digital Disruption and Innovation	Demographic trends, evolving client expectations, the increased power to analyse data and the emergence of disruptors are creating competitive pressures across a number of sectors. Established technology companies, newer competitors, and regulatory changes continue to foster new business models that could challenge traditional banks and financial products. In addition, these trends and developments are eliciting re-energized efforts from traditional competitors to meet the evolving needs of clients and compete with non-traditional competitors. Finally, the adoption of new technologies, such as AI and machine learning, presents opportunities for the Issuer, but could result in new and complex risks that would need to be managed effectively.
Climate Change	Extreme weather events and the global transition to a low carbon economy could result in a broad range of impacts, including potential strategic, reputational, structural and credit related risks for the Issuer and its clients. In addition, climate change regulations, frameworks, and guidance are rapidly emerging and evolving across the globe. Increasing regulatory expectations create a new set of compliance risks that need to be managed.

(ii) Replacing the “Operational risk” section with the following:

Operational risk is the risk of loss or harm resulting from people, inadequate or failed internal processes and systems or from external events. Operational risk is inherent in all of the Issuer’s activities and third party activities and failure to manage operational risk can result in direct or indirect financial loss, reputational impact or regulatory censure.

Notwithstanding anything in this risk factor, this risk factor should not be taken as implying that the Issuer will be unable to comply with its obligations as a company with securities admitted to the Official List of the FCA or as a supervised firm regulated by the FCA or PRA.

The Issuer’s operations expose it to many different operational risks, which may adversely affect its businesses and financial results. The following table is not exhaustive, as other factors could also adversely affect the Issuer’s results.

Risk	Description
Cybersecurity	Cybersecurity risk includes risks in the form form of cyber-attacks, data breaches, cyber extortion and similar compromises. Resulting implications could include business interruptions, service disruptions, financial loss, theft of intellectual property and confidential information, litigation, enhanced regulatory attention and penalties, and reputational damage. The Issuer has a dedicated team of technology and cybersecurity professionals that manage a comprehensive program to help protect the organization against breaches and other incidents by ensuring appropriate security and operational controls are in place. The Issuer continues to strengthen its cyber-control framework and to improve its resilience and cybersecurity capabilities including 24 hour monitoring and alerting of potentially suspicious security events and incidents. Throughout the year, investments continued to be made on the program and multiple scenarios and simulations were conducted to test the Issuer’s resiliency strategy.
Data management and privacy	Ineffective or inconsistent data governance and management may compromise the Issuer’s data and information assets which could result in financial, reputational and regulatory compliance impacts. The use and management of data and the governance over data, are becoming increasingly important as the Issuer continues to invest in digital solutions and innovation, as well as, expanding its business activities. This is also reflected through recent regulatory developments relating to privacy, such as the General Data Protection Regulation by the European Union (EU) and the California Consumer Privacy Act (CCPA). The Chief Privacy Office and the Chief Data Officer partner with cross-functional teams to develop and implement enterprise-wide standards and practices that describe how data (including personal information) is used, protected, managed and governed.

Money laundering and Terrorist financing	Money laundering is any act or attempt to disguise the source of money assets derived from criminal activity and terrorist financing is the provision of funds for terrorist activity. The Issuer maintains an enterprise-wide program designed to deter, detect and report suspected money laundering and terrorist financing activities across the organization, while ensuring compliance with the laws and regulations of the various jurisdictions in which the Issuer operates. Risks of non-compliance include enforcement actions, criminal prosecutions and reputational damage. The Issuer's Global AML Compliance Group is dedicated to the continuous development and maintenance of robust policies, guidelines, training and risk-assessment tools and models to help its employees deal with ever-evolving money laundering and terrorist financing risks. The global anti-money laundering/anti-terrorist financing program is regularly evaluated to ensure it remains aligned with industry standards, best practices and all applicable laws, regulations and guidance.
Third party risk	Failure to effectively onboard and manage service providers may expose the Issuer to service disruption, financial loss, and other risks. The Issuer has a risk-based enterprise-wide program designed to provide oversight for third party relationships that enables it to respond effectively to events that can cause service disruptions, financial loss or various other risks that could impact the Issuer.

(iii) Replacing the "Legal and regulatory environment risk" section with the following:

Legal and regulatory environment risk is the risk that new or modified laws and regulations, and the interpretation or application of those laws and regulations, will negatively impact the way in which the Issuer operates, both in Canada and in the other jurisdictions in which it conducts business. The full impact of some of these changes on the Issuer's business will not be known until final rules are implemented and market practices have developed in response. The Issuer continues to respond to these and other developments and is working to minimize any potential adverse business or economic impact. The following provides a high-level summary of some of the key regulatory changes that have potential to increase the Issuer's costs, impact its profitability and increase the complexity of the Issuer's operations.

Global Uncertainty

Trade policy remains a risk to the global economic outlook. Throughout 2019, the International Monetary Fund lowered its 2019 and 2020 global growth projections due to continued geopolitical uncertainty, weaker than anticipated global trade activity and softening inflation. While Canada, the U.S. and Mexico successfully renegotiated the North American Free Trade Agreement, it remains uncertain whether the new Canada-United States-Mexico Agreement (CUSMA) will be ratified by the end of calendar 2019. The Canadian economy is vulnerable to continued trade tensions given Canada's trading relationships with both the U.S. and China. Tensions remain elevated between China and the U.S. as they continue to negotiate a trade deal. The outcome of the Brexit negotiations remains uncertain, as the EU granted the U.K. an extension until January 31, 2020 to determine the terms of its withdrawal from the EU.

Consumer Protection

The Canadian federal government has focused its attention on issues relating to consumer protection and the sales practices of banks. While the government's proposed legislative changes to consumer protection provisions applicable to banks were approved on December 13, 2018, some of the changes have not yet become effective and the government remains in the early stages of developing a regulatory framework to support the new provisions.

Privacy

In May 2019, the Canadian government released a digital charter with principles for data use and governance, along with proposed privacy law reforms that include greater individual control over data and stronger regulatory enforcement and oversight. In addition, in June 2019, the Standing Senate Committee on Banking, Trade and Commerce released its report calling for urgent legal reform to quickly advance open banking. Although timing is uncertain, significant reform is anticipated that may impact Canadian and international business processes and privacy risk management practices.

Outside of Canada, unprecedented privacy breach fines and settlements have been issued, demonstrating increasing regulatory vigilance and enforcement. The CCPA, which becomes effective on January 1, 2020, is currently the most comprehensive state privacy law in the U.S., and includes numerous new and expanded privacy requirements and obligations for companies doing business in the state, or collecting California residents' personal information. The U.S. Regional Head of Privacy is coordinating activities across the Issuer's U.S. businesses, and a U.S. Information Governance and Privacy Committee was established to monitor the implementation of the CCPA and future state privacy laws as well as to oversee privacy issues. Legislative and regulatory developments are also being closely monitored since the General Data Protection Regulation became law in the EU. The Office of the Privacy Commissioner of Canada (OPC) continues to call for more modern legislation, including the ability to audit businesses and fine companies that do not adhere to privacy laws. These actions demonstrate the ongoing trend toward increased regulatory intervention in the use and safeguarding of personal information, and the Issuer is reviewing the potential implications for the Issuer's various businesses. The Issuer's Global Privacy Program is responsible for ensuring the Issuer's organization meets these evolving global principles.

Canadian Anti-Money Laundering (AML) regulations

In July 2019, amendments to Canada's Proceeds of Crime (Money Laundering) and Terrorist Financing Act regulations were released and will become effective by June 2021. These amendments aim to improve the effectiveness of Canada's anti-money laundering and counter-terrorism financing regime, and to improve compliance with international standards. New regulations, which represent increased oversight and regulatory monitoring, will require substantial changes to the Issuer's client-facing, transaction and payment processing, and records management systems mainly due to the need for the capture of additional client data.

Canadian Housing Market and Consumer Debt

The Government of Canada and a number of provincial governments have introduced measures to respond to concerns relating to the level and sustainability of Canadian household debt. Risks in this area continue to be closely monitored with further regulatory responses possible depending on market conditions and any heightened concerns that may be raised.

Interest Rate Benchmark Reform

London Interbank Offered Rate (LIBOR) is the most widely referenced benchmark interest rate across the globe for derivatives, bonds, loans and other floating rate instruments; however, there is a regulator-led push to transition the market from LIBOR and certain other benchmark rates to alternative risk-free, or nearly risk-free, rates that are based on actual overnight transactions. However, some regulators and market participants continue to evaluate other options. In addition to the U.S. and U.K., regulators and national central banks internationally, including the Bank of Canada, have warned the market they will need to be prepared for certain benchmark rates to be discontinued at the end of 2021. Derivatives, floating rate notes and other financial contracts whose terms extend beyond 2021, and that refer to certain benchmark rates as the reference rate, will be impacted.

Other Regulatory Initiatives Impacting Financial Services in Canada

Several initiatives are underway or contemplated. From the perspective of the federal government this includes: a consultation process on the merits of open banking in a Canadian context; a consultation on the digital/data-driven economy; and consultations on the details of its deposit insurance review. From a provincial perspective, the Canadian Securities Administrators are engaged in a consultation process on registration and business conduct rules relating to over-the-counter (OTC) derivatives products, including bank activities in this area.

United States Tax Reform

The majority of the provisions of the U.S. Tax Cuts and Jobs Act legislation (U.S. Tax Reform), which was passed in December 2017, took effect at the beginning of calendar 2018 or for fiscal years beginning in 2018. Regulations clarifying certain aspects of the new law, however, continue to be released. In December 2018, the U.S. Treasury released proposed regulations clarifying some of the international tax provisions of the law. In December 2019, the U.S. Treasury released final regulations and additional proposed regulations clarifying many of the rules for calculating a Base Erosion Anti-Abuse Tax (BEAT). The Issuer is currently reviewing the impact of these regulations and is awaiting release of further guidance on other international tax provisions.

United States Regulatory Initiatives

Policymakers continue to evaluate and implement reforms to various U.S. financial regulations, which could result in either expansion or reduction to the U.S. regulatory requirements and associated changes in compliance costs. For example, the SEC has enacted Regulation Best Interest that establishes new standards of conduct for broker-dealers that make investment recommendations to retail customers. Broker-dealers will be required to comply starting in June 2020. Additionally, since August 2019, the financial regulatory agencies responsible for implementing the Volcker Rule have adopted amendments revising the requirements regarding proprietary trading and compliance programs, which are expected to reduce the Issuer’s related compliance costs. In October 2019, the Fed and the Federal Deposit Insurance Corporation (FDIC) finalized rules related to resolution plans for bank holding companies, insured depository institutions, as well as foreign banks and their intermediate holding companies. Also in October 2019, the Fed, FDIC, and the Office of the Comptroller of the Currency (OCC) finalized rules related to enhanced prudential standards, regulatory capital, and liquidity requirements for foreign banking organizations operating in the U.S. The Issuer will continue to monitor developments and any resulting implications for the Issuer.

U.K. and European Regulatory Reform

In addition to the implications from Brexit, which could impact the way in which the Issuer manages its operations and provides services in the U.K. and the EU, other forthcoming regulatory initiatives include:

- The EU's Securities Financing Transactions Regulation, which will require transaction reporting of securities financing transactions is expected to take effect in the second calendar quarter of 2020, extended from its previous effective date of the first calendar quarter of 2019; and
- The EU's Central Securities Depository Regulation rules which are intended to increase discipline in the settlement of securities transactions and is scheduled to take effect in September 2020.

These regulations could increase compliance costs for the Issuer and the interpretation or application of these regulations could negatively impact the way in which the Issuer operates.

(iv) Replacing the "Systemic risk" section with the following:

Systemic risk is the risk that the financial system as a whole, or a major part of it – either in an individual country, a region, or globally – is put in real and immediate danger of collapse or serious damage with the likelihood of material damage to the economy, and that this will result in financial, reputation, legal or other risks for the Issuer.

The Issuer's earnings are significantly affected by the general business and economic conditions in the geographic regions in which it operates. These conditions include consumer saving and spending habits as well as consumer borrowing and repayment patterns, business investment, government spending, exchange rates, sovereign debt risks, the level of activity and volatility of the capital markets, strength of the economy and inflation. For example, an extended economic downturn may result in higher unemployment and lower family income, corporate earnings, business investment and consumer spending, and could adversely affect the demand for the Issuer's loan and other products and result in higher provisions for credit losses. Given the importance of the Issuer's Canadian operations, an economic downturn in Canada or in the U.S. would largely affect the Issuer's personal and business lending activities in its Canadian banking businesses, including mortgages and credit cards, and could significantly impact the Issuer's results of operations. The U.S. economy is vulnerable to trade tensions with China as they continue to negotiate a trade deal. The Canadian economy is vulnerable to trade tensions with, and between, the U.S. and China, given Canada's trade relationship with both nations.

The Issuer's earnings are also sensitive to changes in interest rates. While the Bank of Canada left its policy rate unchanged in 2019, market interest rates have generally declined, due in part to easing by other central banks globally. A continuing low interest rate environment in Canada, the U.S. and globally would result in net interest income being unfavourably impacted by spread compression across many of the Issuer's businesses while an increase in interest rates would benefit the Issuer's businesses. However, a significant increase in interest rates could also adversely impact household balance sheets. This could result in credit deterioration which might negatively impact the Issuer's financial results, particularly in some of its Personal & Commercial Banking and Wealth Management businesses.

Deterioration in global capital markets could result in volatility that would impact results in the Issuer's Capital Markets business, while in Wealth Management weaker market conditions would lead to lower average fee-based client assets and transaction volumes. In addition, worsening financial and credit market conditions may adversely affect the Issuer's ability to access capital markets on favourable terms and could negatively affect the Issuer's liquidity, resulting in increased funding costs and lower transaction volumes in Capital Markets and Investor & Treasury Services.

Systemic risk is considered to be the least controllable risk facing the Issuer. The Issuer’s ability to mitigate this risk when undertaking business activities is limited, other than through collaborative mechanisms between key industry participants, and, as appropriate, the public sector, to reduce the frequency and impact of these risks.

AMENDMENT TO STATEMENT REGARDING GOVERNMENTAL, LEGAL OR ARBITRATION PROCEEDINGS

Paragraph 3 of the section entitled “General Information” on page 170 of the Base Prospectus is hereby deleted in its entirety and replaced with the following:

> “Other than the matters disclosed under the subsection entitled "Tax examinations and assessments" in Note 23 of the 2019 Audited Consolidated Financial Statements set out on page 198 of the Issuer's 2019 Annual Report, and the matters disclosed (with the exception of the subsection entitled "Other matters") in Note 26 of the 2019 Audited Consolidated Financial Statements set out on pages 201 and 202 of the Issuer's 2019 Annual Report and in each case 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”.

UPDATES 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 2019 Annual Report, Element B.4b of the Summary to the Programme is updated as set out below:

B.4b	Known trends affecting the Issuer and its Industry:	The banking environment and markets in which the Issuer conducts its businesses will continue to be strongly influenced by developments in the Canadian, the United States and European economies and global financial markets. As with other financial services providers, the Issuer continues to face increased supervision and regulation in most of the jurisdictions in which it operates. Significant developments include continuing changes to global and domestic standards for capital and liquidity, global trade agreements, legislative developments on data privacy, amendments to anti-money laundering regulations and the United States (the "U.S."), the United Kingdom (the "U.K.") and European regulatory reforms.

Following the release of RBC's 2019 Annual Report, Element B.12 of the Summary to the Programme is updated as set out below:

B.12	Key Historical Financial Information; no material adverse change and no significant change statements:	With the exception of the figures for return on common equity, information in the tables below for the years ended October 31, 2019 and 2018 has been extracted from the Issuer's 2019 audited consolidated financial statements (the "**2019 Audited Consolidated Financial Statements**"), prepared in accordance with International Financial Reporting Standards ("**IFRS**") as issued by the International Accounting Standards Board, which are incorporated by reference in the Base Prospectus. The amounts under return on common equity for the years ended October 31, 2019 and 2018 have been extracted from the Issuer's 2019 Management's Discussion and Analysis in its 2019 Annual Report for the year ended October 31, 2019:

Selected Consolidated Balance Sheet Information

	As at October 31, 2019	As at October 31, 2018
	(in millions of Canadian dollars)	
Loans, net of allowance for loan losses	618,856	576,818
Total assets	1,428,935	1,334,734
Deposits	886,005	836,197
Other liabilities	447,827	408,083
Subordinated debentures	9,815	9,131
Non-Controlling interest	102	94
Equity attributable to shareholders	83,523	79,861

Condensed Consolidated Statement of Income Information

	Year ended October 31, 2019	Year ended October 31, 2018
	(in millions of Canadian dollars, except per share amounts and percentage amounts)	
Net interest income	19,749	17,952
Non-interest income	26,253	24,624
Total revenue	46,002	42,576
Provision for credit losses (PCL)	1,864	1,307
Insurance policyholder benefits, claims and acquisition expense	4,085	2,676
Non-interest expense	24,139	22,833
Net Income	12,871	12,431
Earnings per share		
– basic	$8.78	$8.39
– diluted	$8.75	$8.36
Return on common equity (ROE)[1,2]	16.8%	17.6%

1. This measure does not have a standardized meaning under generally accepted accounting principles (GAAP) and may not be comparable to similar measures disclosed by other financial institutions. For further details, refer to the Key performance and non-GAAP measures section of the Issuer's 2019 Management's Discussion and Analysis in the Issuer's 2019 Annual Report.
2. Average amounts are calculated using methods intended to approximate the average of the daily balances for the period. This includes Average common equity used in the calculation of ROE. For further details, refer to the Key performance and non-GAAP measures section of the Issuer's 2019 Management's Discussion and Analysis in the Issuer's 2019 Annual Report.

		Statement of no significant or material adverse change Since October 31, 2019, there has been no material adverse change in the prospects of the Issuer and its subsidiaries taken as a whole.
		Since October 31, 2019, there has been no significant change in the financial or trading position of the Issuer and its subsidiaries taken as a whole.

Following the amendment of certain risk factors, namely the Information Technology and Cyber Risks, Privacy, Data and Third Party Related Risks, Geopolitical Uncertainty, Canadian Housing and Household Indebtedness and Regulatory Changes risk factors, Element D.2 of the Summary to the Programme is updated as set out below:

D.2	Key Information on the key risks that are specific to the Issuer:	The following is a summary of the key risks relating to the Issuer: **Information Technology and Cyber Risks:** Information technology (IT) and cyber risks remain as top risks, not only for the financial services sector, but for other industries worldwide. The Issuer is subject to heightened risks in the form of cyber-attacks, data breaches, cyber extortion and similar compromises, due to the size, scale, and global nature of the Issuer's operations, its heavy reliance on the internet to conduct day-to-day business activities, its intricate technological infrastructure and the Issuer's use of third party service providers. Additionally, clients' use of personal devices can create further avenues for potential cyber-related incidents as the Issuer has little or no control over the safety of these devices. As the volume and sophistication of cyber-attacks continue to increase, the resulting implications could include business interruptions, service disruptions, financial loss, theft of intellectual property and confidential information, litigation, enhanced regulatory attention and penalties, and reputational damage. Furthermore, the adoption of emerging technologies, such as cloud computing, artificial intelligence (AI) and robotics, call for continued focus and investment to manage the Issuer's risks effectively. **Privacy, Data and Third Party Related Risks:** The management, use, and protection of data is a top risk given the high value attributed to data and the potential exposure to operational risks, reputational risks, and regulatory compliance risks. The growing importance of effective privacy and information management practices and controls has been demonstrated by the pace and size of recent regulatory enforcement. Further, as the Issuer continues to partner with third party service providers and adopt new technologies and business models (e.g., cloud computing), the Issuer's potential exposure to these risks increases. **Geopolitical Uncertainty:** Persisting trade tensions, policy changes, and uncertainties pertaining to Brexit and the political direction of the U.S., U.K. and Europe, have continued to impact global economic growth prospects and market sentiment. The Canadian economy is vulnerable to continued trade tensions given the country's trading relationships with the U.S. and China. Tensions also remain elevated between China and the U.S. as they continue to negotiate a trade deal. In addition, the changing political landscape in Hong Kong and ongoing tensions in the Middle East add further to global and economic uncertainty. **Canadian Housing and Household Indebtedness:** The Government of Canada, and a number of provincial governments, have introduced measures to respond to concerns related to housing affordability in certain markets and elevated levels of Canadian household debt. Lower mortgage rates, along with a solid labour market and strong population growth, helped spark a recovery in the Canadian housing market in 2019. The turnaround, however, has been slower in Western Canada due

		to the presence of additional cooling measures in British Columbia, coupled with more modest economic growth in Alberta and Saskatchewan. Low interest rates should help ease upward pressures on household debt service ratios but should interest rates begin to rise, this could have materially negative credit implications for the Issuer's broader consumer lending activities. **Regulatory Changes:** The Issuer operates in multiple jurisdictions, and the continued introduction of new or revised regulations leads to increasing focus across the organization on meeting higher regulatory requirements across a number of different markets. Financial and other reforms coming into effect, across multiple jurisdictions, such as the Canadian anti-money laundering regulations and Interest rate benchmark reform, continue to provide challenges and impact the Issuer's operations and strategies. **Credit Risk:** Credit risk is the risk of loss associated with an obligor's potential inability or unwillingness to fulfil its contractual obligations on a timely basis. Credit risk may arise directly from the risk of default of a primary obligor of the Issuer (e.g., issuer, debtor, counterparty, borrower or policyholder), indirectly from a secondary obligor of the Issuer (e.g., guarantor or reinsurer) or through off-balance sheet exposures, contingent credit risk and/or transactional risk. Credit risk includes counterparty credit risk from both trading and non-trading activities. The failure to effectively manage credit risk across all the Issuer's products, services and activities can have a direct immediate and material impact on the Issuer's earnings and reputation. **Market Risk:** Market risk is defined to be the impact of market prices upon the financial condition of the Issuer. This includes potential gains or losses due to changes in market determined variables such as interest rates, credit spreads, equity prices, commodity prices, foreign exchange rates and implied volatilities. **Liquidity and Funding Risk:** Liquidity and funding risk is the risk that the Issuer may be unable to generate sufficient cash or its equivalents in a timely and cost-effective manner to meet its commitments as they come due (including the Securities). Liquidity risk arises from mismatches in the timing and value of on-balance sheet and off-balance sheet cash flows. Core funding, comprising capital, longer-term wholesale liabilities and a diversified pool of personal and, to a lesser extent, commercial and institutional deposits, is the foundation of the Issuer's structural liquidity position. The Issuer's ability to access unsecured funding markets and to engage in certain collateralised business activities on a cost-effective basis are primarily dependent upon maintaining competitive credit ratings. Credit ratings and outlooks provided by rating agencies reflect their views and methodologies. Ratings are subject to change, based on a number of factors including, but not limited to, the Issuer's financial strength, competitive position, liquidity and other factors not completely within the Issuer's control. A lowering of the Issuer's credit ratings may have potentially adverse consequences for the Issuer's funding capacity or access to the capital markets, may affect the Issuer's ability, and the cost, to enter into normal course derivative or hedging transactions and may require the Issuer to post additional collateral under certain contracts, any of which may have an adverse effect on its results of operations and financial condition.

SUPPLEMENTARY OFFERING CIRCULAR

Page 16 of this Supplement (the "**2nd 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 FINANCIAL CONDUCT AUTHORITY AND THE OFFERING CIRCULAR DOES NOT CONSTITUTE A PROSPECTUS FOR THE PURPOSE OF THE PROSPECTUS DIRECTIVE.

RBC accepts responsibility for the information in this 2nd 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 2nd 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;

(iii) Statement of No Material Adverse Change;

(iv) Risk Factors; and

(v) Amendment to Statement Regarding Governmental, Legal or Arbitration Proceedings;

each of 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**", references to "**2nd Supplementary Prospectus**" shall be deemed to be to the "**2nd Supplementary Offering Circular**" and, references to "**Notes**" shall be deemed to be reference to "**Non PD Notes**".

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.