Royal Bank of Canada Investor Presentation

Q2/2019

All amounts are in Canadian dollars unless otherwise indicated and are based on financial statements prepared in compliance with International Accounting Standards 34 *Interim Financial Reporting*, unless otherwise noted. Our Q2 2019 Report to Shareholders and Q2 2019 Supplementary Financial Information are available on our website at rbc.com/investorrelations.





Caution regarding forward-looking statements

From time to time, we make written or oral forward-looking statements within the meaning of certain securities laws, including the "safe harbour" provisions of the United States Private Securities Litigation Reform Act of 1995 and any applicable Canadian securities legislation. We may make forward-looking statements in this presentation, in other filings with Canadian regulators or the SEC, in reports to shareholders, and in other communications. Forward-looking statements in this document include, but are not limited to, statements relating to our financial performance objectives, vision and strategic goals. The forward-looking information contained in this presentation is presented for the purpose of assisting the holders of our securities and financial analysts in understanding our financial position and results of operations as at and for the periods ended on the dates presented, as well as our financial performance objectives, vision and strategic goals, and may not be appropriate for other purposes. Forward-looking statements are typically identified by words such as "believe", "expect", "foresee", "forecast", "anticipate", "intend", "estimate", "goal", "plan" and "project" and similar expressions of future or conditional verbs such as "will", "may", "should", "could" or "would".

By their very nature, forward-looking statements require us to make assumptions and are subject to inherent risks and uncertainties, which give rise to the possibility that our predictions, forecasts, projections, expectations or conclusions will not prove to be accurate, that our assumptions may not be correct and that our financial performance objectives, vision and strategic goals will not be achieved. We caution readers not to place undue reliance on these statements as a number of risk factors could cause our actual results to differ materially from the expectations expressed in such forward-looking statements. These factors – many of which are beyond our control and the effects of which can be difficult to predict – include: credit, market, liquidity and funding, insurance, operational, regulatory compliance, strategic, reputation, legal and regulatory environment, competitive and systemic risks and other risks discussed in the risk sections of our 2018 Annual Report and the Risk management section of our Q2 2019 Report to Shareholder; including global uncertainty, Canadian housing and household indebtedness, information technology and cyber risk, regulatory changes, digital disruption and innovation, data and third party related risks, climate change, the business and economic conditions in the geographic regions in which we operate, the effects of changes in government fiscal, monetary and other policies, tax risk and transparency and environmental and social risk.

We caution that the foregoing list of risk factors is not exhaustive and other factors could also adversely affect our results. When relying on our forward-looking statements to make decisions with respect to us, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Material economic assumptions underlying the forward looking-statements contained in this presentation are set out in the Economic, market and regulatory review and outlook section and for each business segment under the Strategic priorities and Outlook headings in our 2018 Annual Report, as updated by the Economic, market and regulatory review and outlook section of our Q2 2019 Report to Shareholders. Except as required by law, we do not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by us or on our behalf.

Additional information about these and other factors can be found in the risk sections of our 2018 Annual Report and the Risk management section of our Q2 2019 Report to Shareholders.

Information contained in or otherwise accessible through the websites mentioned does not form part of this presentation. All references in this presentation to websites are inactive textual references and are for your information only.

About RBC 1

About RBC



The RBC story



Diversified business model with leading client franchises

- Well-diversified across businesses, geographies and client segments
- Able to capitalize on opportunities created by changing market dynamics and economic conditions
- Wide breadth of products and capabilities to meet our clients' financial needs and build deep, longterm relationships

Market leader with a focused growth strategy

- Market leader in Canada and one of the largest financial institutions globally⁽¹⁾
- Clear strategy for continued long-term growth in Canada, the U.S. and select global markets

Financial strength underpinned by prudent risk and cost management

- Track record of earnings and dividend growth while maintaining a disciplined approach to risk and cost management
- Credit ratings amongst the highest globally
- Strong capital position and a high quality liquid balance sheet

Innovation is in our DNA

- Long history of innovation and proven ability to adapt to industry trends
- Investments in technology allow us to drive efficiencies and deliver an exceptional client experience
- Focused on simplifying, digitizing and personalizing our products to make it easier for clients and employees to do business and lower costs
- Announced our commitment to \$100 billion in sustainable finance by 2025
- Issued our first <u>€500 million 5-year green bond offering</u> and RBC CM hosted our 6th annual Green Bond Conference
- RBC and iShares expanded its ETF offering with <u>launch of the iShares Sustainable Core ETFs</u>



- Released our <u>2018 ESG⁽²⁾ Performance Report and Public Accountability Statement</u>: the report highlights RBC's commitment to ESG priorities as well as its purpose-driven, principles-led approach to delivering leading performance
- Through RBC Future Launch, we supported the launch of the <u>YouthfulCities Urban Work Index</u>: to help young people prepare for the future of work
- Hosted the "Transition Day of Learning" that saw 95 investors and ESG influencers come together
 to discuss the low-carbon transition and the role investors can play to enable it

Market leader with a focused strategy for growth



Largest in Canada⁽¹⁾

A market leader across all key businesses

Top 15 Globally⁽¹⁾

One of the 15 largest global banks by market capitalization with operations in 36 countries

16 Million+ Clients

Served by 84,000+ employees worldwide

Purpose

Help clients thrive and communities prosper

Vision

To be among the world's most trusted and successful financial institutions

Strategic Goals



In Canada: To be the undisputed leader in financial services



In the United States: To be the preferred partner to corporate, institutional and high net worth clients and their businesses



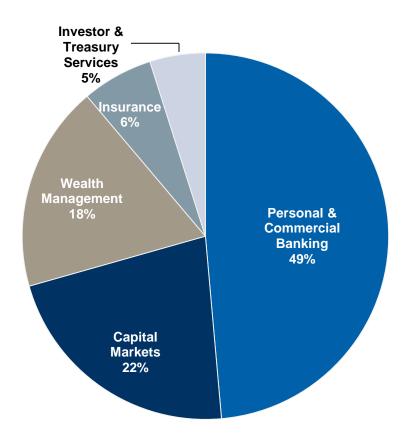
In Select Global Financial Centres: To be a leading financial services partner valued for our expertise

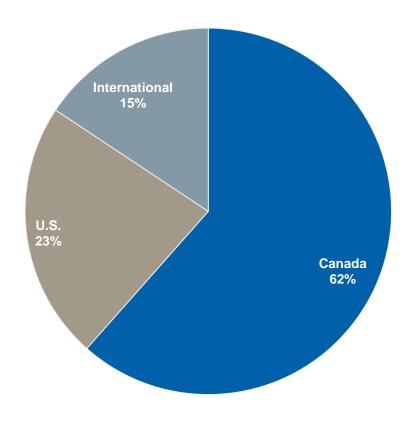




Earnings by Business Segment⁽¹⁾
Latest twelve months ended April 30, 2019

Revenue by Geography⁽¹⁾
Latest twelve months ended April 30, 2019



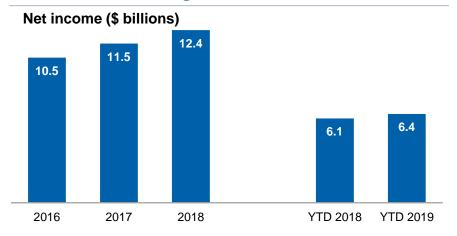


Strong financial profile

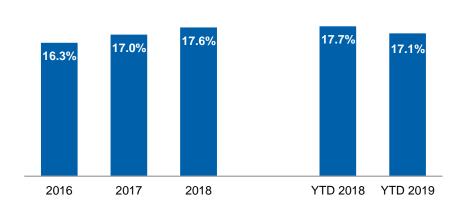


Consistent earnings growth and solid ROE while maintaining a strong capital position with a disciplined approach to risk

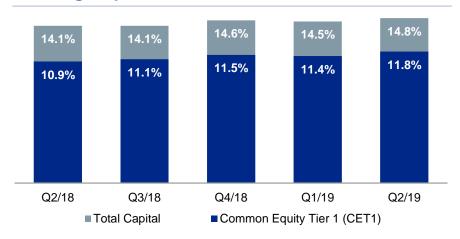
Consistent Earnings Growth



Strong Return on Equity(1)



Strong Capital Position



Strong Leverage and Liquidity Ratios

Leverage Ratio

4.3%

Liquidity Coverage Ratio

127%

Credit Ratings Amongst the Highest Globally

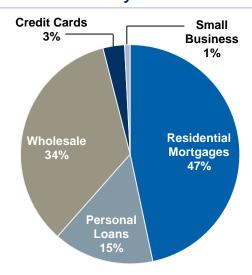
	Moody's	S&P	DBRS	Fitch
Legacy senior long-term debt ⁽²⁾	Aa2	AA-	AA	AA
Senior long-term debt ⁽³⁾	A2	Α	AA (low)	AA
Outlook	Stable	Stable	Positive	Stable

Prudent risk management

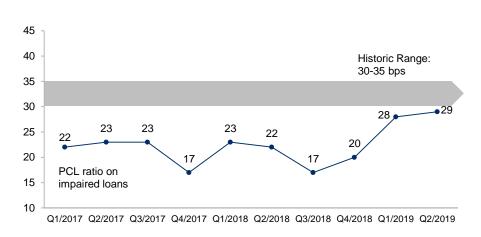


A disciplined approach and diversification have driven stable credit trends

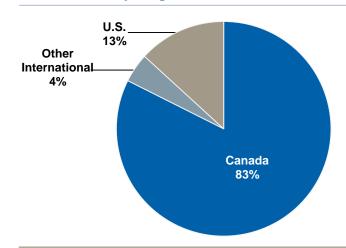
Loan Book Diversified by Portfolio⁽¹⁾



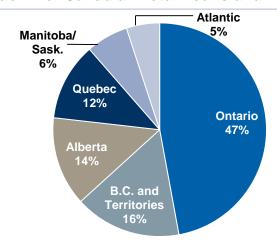
PCL Ratio on Impaired Loans⁽²⁾ (bps)



Breakdown by Region of Total Loans and Acceptances⁽¹⁾



Breakdown of Canadian Total Loans and Acceptances(1)



About RBC 7





Financial performance objectives measure our progress against our goal of maximizing total shareholder returns

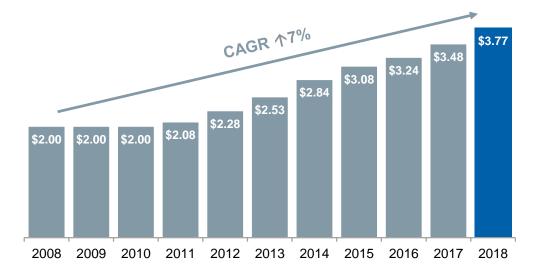
Medium-Term Financial Performance Objectives

Diluted EPS Growth	7%+
Return on Equity	16%+
Capital Ratios (CET1)	Strong
Dividend Payout Ratio	40% - 50%

Achieved Solid TSR⁽¹⁾ Performance

	RBC	Peer Average
3 Year	15%	11%
5 Year	12%	8%
10 Year	14%	13%

Strong Dividend Growth(2)



Business Segments





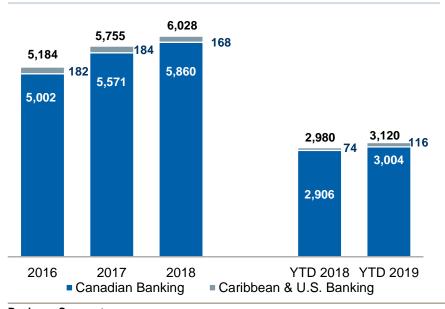


- The financial services leader in Canada
 - #1 or #2 market share in all key product categories
 - Most branches and one of the largest mobile sales networks across Canada
 - Superior cross-sell ability
- In 16 countries and territories in the Caribbean
 - 2nd largest bank by assets⁽¹⁾ in English Caribbean
- Innovative direct banking to U.S. cross-border clients
- Ongoing investment to digitize our banking channels

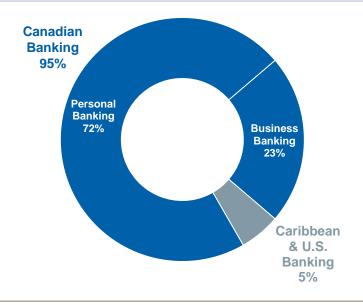
Q2/2019 Highlights

Clients (MM)	14.0+
Branches	1,264
ATMs	4,496
Active Digital (Online and Mobile) Users ⁽²⁾ (MM)	7.0
Employees (FTE)	35,000+
Net Loans & Acceptances ⁽¹⁾ (\$BN)	441.9
Deposits ⁽¹⁾ (\$BN)	389.0
AUA ⁽¹⁾ (\$BN)	277.9

Net Income (\$ millions)



Revenue by Business Line(3)



Personal & Commercial Banking – Canadian Banking



Strategic Priorities Building A Digitally-Enabled Relationship Bank[™]

Transform How We Serve Our Clients

- Make it easier for clients to access products and services digitally
- Create capacity and capability to focus on advice, complex servicing and sales, and problem resolution
- Focus on innovating our branch network

Accelerate Client Growth

- Grow commercial market share through industry-specific credit strategies
- Target high-growth retirement segment and business succession planning
 Continue to increase client acquisitions including law acquests; high net was a companied by a companied
- Continue to increase client acquisitions including key segments: high net worth, newcomers and students and young adults while deepening existing client relationships

Rapidly Deliver Digital Solutions

- Continue to deliver leading digital capabilities and functionality through our award-winning mobile app
- Create partnerships to innovate, making it easier to bank with RBC
- Invest in research and development to understand and meet rapidly changing client expectations

Innovate to Become a More Agile and Efficient Bank

- Accelerate investments to simplify, digitize and automate for clients and employees
- Change or eliminate products and processes that do not add economic or client value
- Invest in employees to enhance digital, agile and change capabilities

Recent Awards



North American Retail Bank of the year for the 2nd consecutive year and Best Loyalty and Rewards Strategy⁽¹⁾



Highest in Customer Satisfaction Among Mobile Banking Apps for the 2nd consecutive year⁽²⁾



Celent Model Bank 2019 Award for API Strategy and in 2018, RBC won the Personal Financial Experience and Employee Productivity categories⁽³⁾

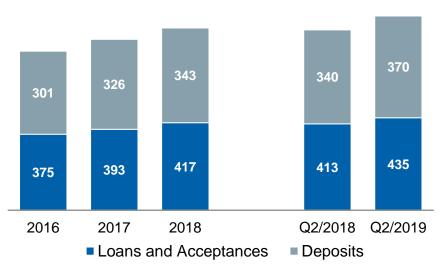


Financial Institution of the Year for the 2nd consecutive year by Digital Finance Institute⁽⁴⁾





Solid Volume Growth (\$ millions)(1)

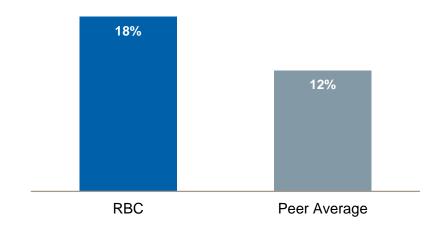


#1 or #2 Market Share in All Key Categories⁽³⁾

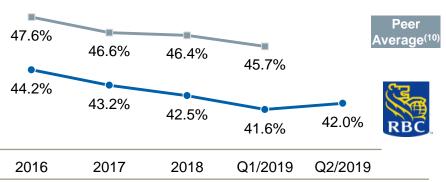
Product	Market share	Rank
Personal Lending ⁽⁴⁾	23.6%	1
Personal Core Deposits + GICs	19.6%	2
Credit Cards ⁽⁵⁾	28.0%	1
Long-Term Mutual Funds ⁽⁶⁾	31.7%	1
Business Loans (\$0-\$25MM) ⁽⁷⁾	26.9%	1
Business Deposits ⁽⁸⁾	25.6%	1

Superior Cross-Sell Ability

Percent of households with transaction accounts, investments and borrowing products⁽²⁾



Continue To Improve Our Efficiency Ratio⁽⁹⁾



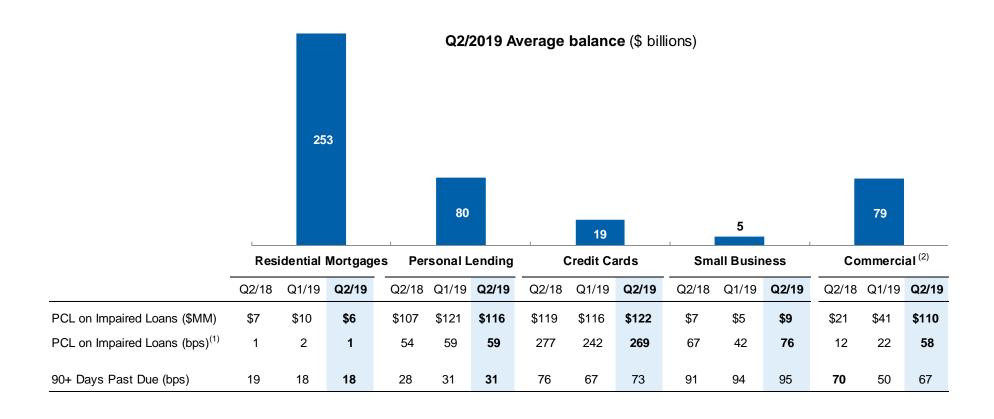
Business Segments

12



Stable retail PCL in Canadian Banking offset by higher commercial PCL

PCL on Impaired Loans Across our Canadian Banking Business Lines

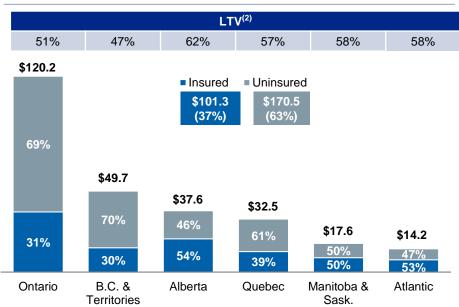






Canadian Residential Mortgage Portfolio⁽¹⁾

As at April 30, 2019 (\$ billions)



Canadian Banking Residential Lending Portfolio⁽²⁾ As at April 30, 2019

	Total (\$287.6BN)	Uninsured (\$210.1BN)
Mortgage	\$248.0BN	\$170.5BN
HELOC	\$39.6BN	\$39.6BN
LTV (2)	53%	52%
GVA	44%	44%
GTA	49%	49%
Average FICO Score ⁽²⁾	791	798
90+ Days Past Due(2)(3)	19 bps	16 bps
GVA	8 bps	8 bps
GTA	6 bps	5 bps

Canadian Mortgage Portfolio

- Average remaining amortization on mortgages of 18 years
- Strong underlying quality of uninsured portfolio
 - ~50% of uninsured portfolio have a FICO score >800
- Greater Toronto Area (GTA) and Greater Vancouver Area (GVA) average FICO scores are above the Canadian average
- Average LTV ratio for newly originated and acquired uninsured residential mortgages is <70% for both the GTA and GVA
- Condo exposure is ~10% of residential lending portfolio

Business Segments 14

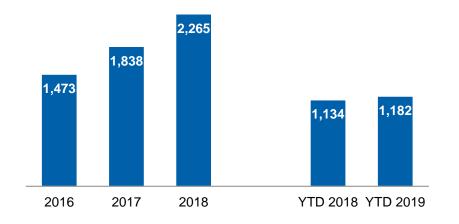
Wealth Management



Strategic Priorities

- Global Asset Management: Deliver investment performance and extend leadership position in Canada, while continuing to build and grow in the U.S. and other key global markets
- Canadian Wealth Management: Continue to deepen client relationships and deliver a differentiated client experience that is increasingly digitally-enabled and supported by data-driven insights
- U.S. Wealth Management: Leverage the combined strengths of City National Bank, RBC Wealth Management and Capital Markets to accelerate growth in the U.S.
- International Wealth Management: Continue to leverage the strengths and capabilities of RBC to drive growth in HNW and UHNW client segments⁽¹⁾

Net Income (\$ millions)



Recent Awards

Best Private Bank for Customer-Facing Digital Capabilities (Family Wealth Report Awards, 2019)

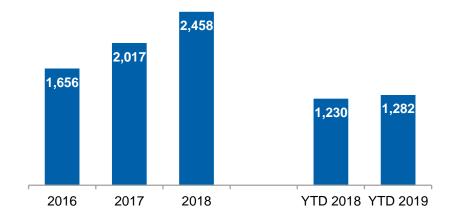
RBC GAM – TopGunSM Investment Team of the Year (Brendan Wood International's Canadian TopGunSM Investment Minds Awards for 2018/2019)

Outstanding Global Private Bank – North America (Private Banker International Global Wealth Awards, 2018)

Outstanding Wealth Planning and Trust Provider (Private Banker International Global Wealth Awards, 2018)

Best Private Bank in Canada (PWM and The Banker Global Private Banking Awards, 2018)

Cash Earnings (\$ millions)(2)



Business Segments 15

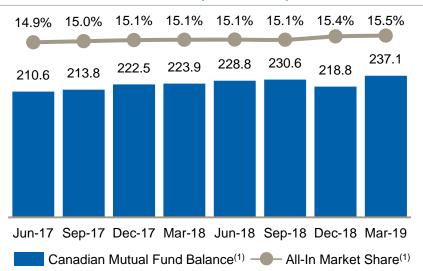




Building a high-performing global asset management business

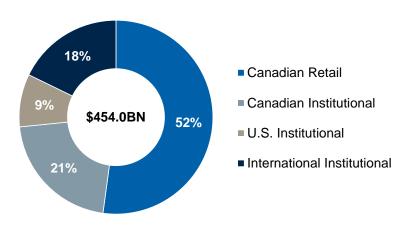
- Driving top-tier profitability in our largest Wealth Management business
 - \$454.0BN in client assets
 - Investor asset mix of 52% Retail / 48% Institutional client assets
- Extending our lead in Canada
 - Largest retail fund company in Canada, ranked #1 in market share capturing 31.8% amongst banks and 15.5% all-in⁽¹⁾
 - 3rd largest institutional pension asset manager in Canada⁽²⁾
- Delivering strong investment capabilities to support growth
 - Top performing investment firm with ~81% of AUM outperforming the benchmark on a 3-year basis⁽³⁾
 - Continued growth of investment capabilities and innovative solutions for both institutional clients and retail investors

Canadian Retail AUM (\$ billions)



Diversified Asset Mix

Q2/2019 AUM by Client Segment (\$ billions)(4)



Wealth Management



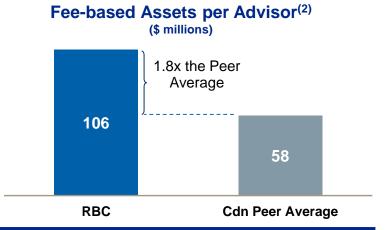
Canadian Wealth Management

Maintaining profitable growth

- Generating 24.8% of RBC Wealth Management earnings with strong pretax margin
- Number 1 HNW⁽¹⁾ market share in Canada⁽²⁾

Driving strong advisor productivity

- Canadian leader in fee-based assets per advisor⁽²⁾
- Consistently driving revenue per advisor of over \$1.53MM per year, 28% above Canadian industry average⁽²⁾
- Strong asset growth complimented by favourable market conditions
- Leveraging enterprise linkages to extend market share gains



U.S. Wealth Management (including City National)

RBC Wealth Management U.S.

- 7th largest full-service wealth advisory firm in the U.S. as measured by number of financial advisors and 6th largest by assets under administration⁽³⁾
- Enhancing the client-advisor experience through a digitally-enabled, goals-based planning approach and strengthening the range of advisory solutions and product offerings
- Continuing to attract and onboard new advisors and clearing relationships while improving advisory productivity and operational efficiency
 City National
- A premier U.S. private and commercial bank that creates a platform for long-term growth in the U.S.
- Operates with a high-touch, branch-light client service model in selected high growth markets, including: Los Angeles, the San Francisco Bay area, Orange County, San Diego, New York, and Washington DC
- Expanding the CNB business model to selected high growth markets

International Wealth Management

- Enhancing advisor and product capabilities to accelerate organic client acquisition
- Continuing to focus on high-priority client segments across HNW and UHNW⁽¹⁾, especially in select target markets where we have scale
- Leveraging RBC's global capabilities to bring the best of RBC to our clients

Insurance



Strategic Priorities

- Improve Distribution Effectiveness and Efficiency: By enhancing our proprietary distribution channels and focusing on the delivery of technology and operational solutions
- Deepen Client Relationships: By continuing to be an innovative, client-focused provider of a full suite of insurance solutions for mass underserved, mass affluent and HNW clients
- Simplify. Agile. Innovate.: By accelerating our digital initiatives' time-to-market, improving quality and cost effectiveness
- Pursue Select International Opportunities: Within our risk appetite, with the aim of continuing to grow our core reinsurance business

Highlights

Among the largest Canadian bank-owned insurance organizations, serving more than four million clients globally

#1 in individual disability sales with 40%(1) market share

#2 in Segregated fund net sales & continues to be one of fastest growing segregated fund providers⁽²⁾

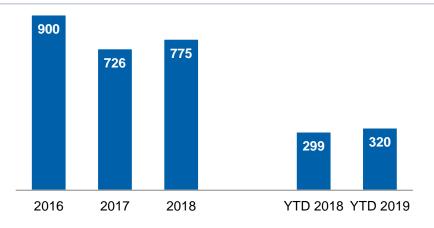
RBC Guaranteed Investment Funds continue to be one of the fastest growing segregated fund providers in Canada with a YoY growth of 17.3%⁽²⁾

#2 in sales in the Canadian group annuity market in 2018 with 18% market share

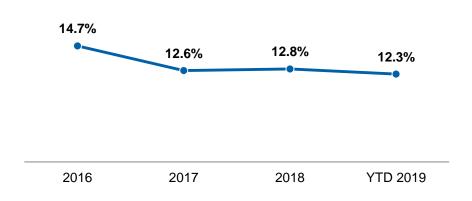
Group annuity market continues to grow rapidly with another record year of growth of 24%

Access to new technology and expanded set of insurance solutions for our clients through partnership with Aviva

Net Income (\$ millions)(3)



Efficiency Ratio⁽⁴⁾



Business Segment 18

Investor & Treasury Services



- Specialist provider of asset services, a leader in Canadian cash management and transaction banking services, and a provider of treasury services to institutional clients worldwide
 - Rated by clients as the #1 Global Custodian for the eighth consecutive year⁽¹⁾
 - Ranked the #1 Fund Administrator overall for the sixth consecutive year⁽²⁾
 - Named Best Trade Finance Bank in Canada for the seventh consecutive year⁽³⁾
- Short-term funding and liquidity management for RBC

Strategic Priorities

Grow income and market share among Canadian asset managers, investment counsellors, pension funds, insurance companies and transaction banking clients

Develop long-term partnerships with sophisticated and fast-growing asset managers

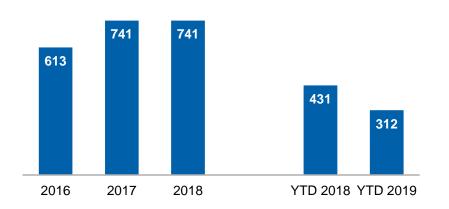
Automate and scale our business to support our clients' growth ambitions

Employ sound risk management practices and commercial insights to mitigate risks in the pursuit of profitable growth

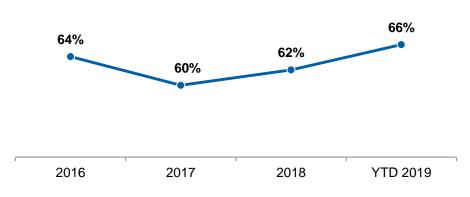
Design and deliver digitally-enabled products and services to transform the way we interact with our clients

Inspire and develop a change-ready workforce

Net Income (\$ millions)



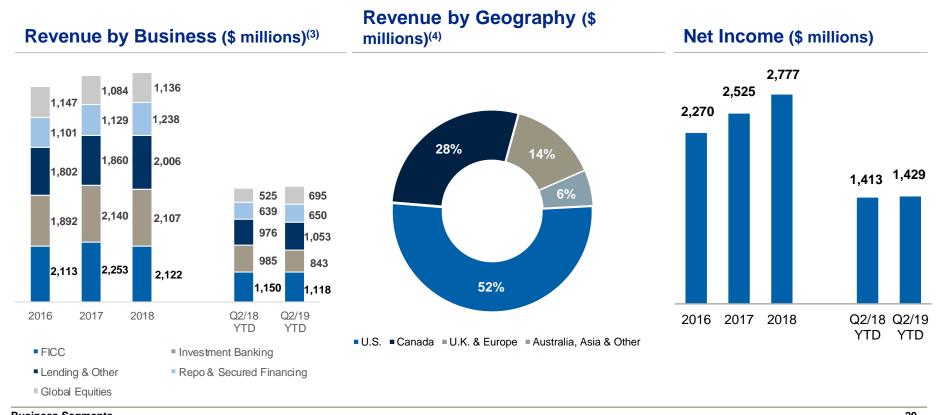
Efficiency Ratio



Capital Markets



- A leading North American investment bank with core markets across Canada, the U.S. and the U.K./Europe
 - 10th largest global investment bank by fees⁽¹⁾
- Strategically positioned in the largest financial centers, focused on the world's largest and most mature capital markets encompassing ~80% of the global investment banking fee pool⁽²⁾
- RBC Capital Markets is recognized by the most significant corporations, institutional investors, asset managers, private equity firms, and governments around the globe as an innovative, trusted partner with an in-depth expertise in capital markets, banking, and finance



Business Segments

(1) Dealogic — Fiscal 2019, O2 VTD, (2) Thomson Reuters, Global Investment Ranking Review, full year 2018, (3) Global Markets segment revenue has been restated to align select portfolios.

Capital Markets



Strategic Priorities

Create valued relationships with our clients by being an innovative and trusted partner

- Focus on long-term client relationships aligned with our global capabilities
- Support our clients by partnering with them to understand their strategic objectives and delivering solutions to achieve their goals
- Collaborate to deliver clients our full suite of global products and services

Continue to grow our Global Investment Banking and Global Markets franchises

- Continue to grow and strengthen our senior coverage teams in the U.S., U.K. and Europe
- Drive technology innovation in our Global Markets businesses through electronification, algorithmic trading, and other initiatives
- Focus capital and coverage to deepen relationships with clients that are the most significant users of Capital Markets
- Partner with other enterprise segments to bring clients One RBC solution, specifically, with U.S. Wealth Management

Optimize Capital Use to Earn High Risk-Adjusted Returns on Assets and Equity Optimize capital use to earn high risk-adjusted returns by maintaining both a balanced approach between investment banking and trading revenue and a disciplined approach to managing the risks and costs of our business

Recent Awards



Best Investment Bank in Canada⁽¹⁾



Best Place to Work for LGBT Equality⁽²⁾

Recent Big Deals



BB&T and SunTrust Agree to \$66 Billion Merger of Equals – RBC Capital Markets Acted as Sole Financial Advisor to BB&T



RBC Capital Markets
Acts as M&A Advisor on
Brookfield Business
Partner's \$13.2 Billion
Acquisition of Johnson
Control's Power
Solutions Business



Sole Bookrunner & Structuring Agent on \$655mm of Amazon Lease Collateralized Pass-Through Note Certificates

(Cloud Notes™)

Capital Markets

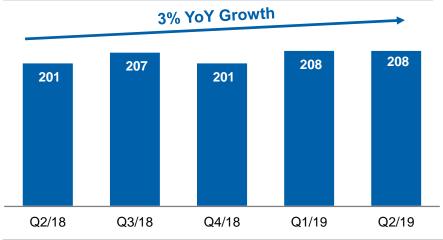


Capital Markets Total Assets, Average

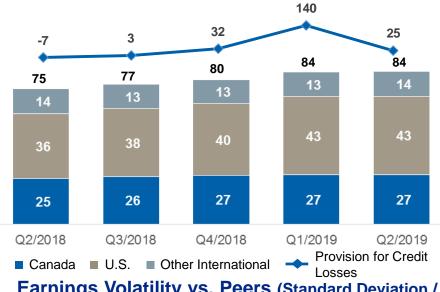
(\$ billions)



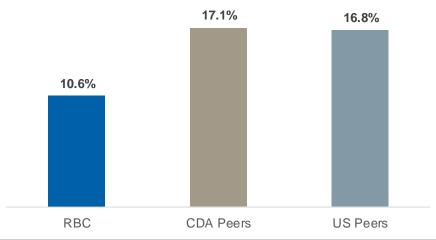
Risk-Weighted Assets, Spot (\$ billions)



Geographic Diversification Across Loan Book Average loans outstanding by region (\$ billions)⁽¹⁾



Earnings Volatility vs. Peers (Standard Deviation / Avg Earnings)⁽²⁾



Business Segments 22

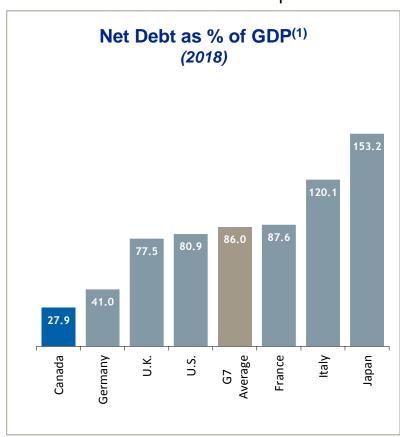
Economic Backdrop

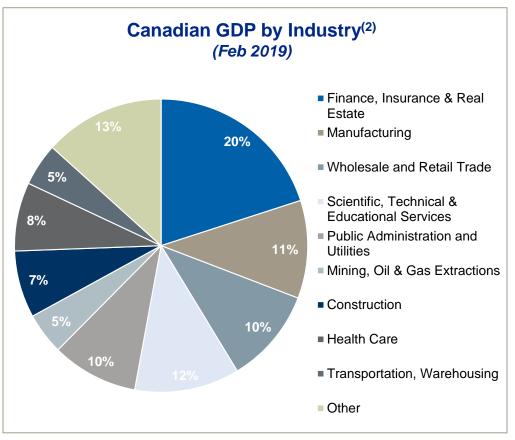






- Strong rating as a result of fiscal prudence, conservative bank lending practices and solid economy
- Lowest net debt to GDP ratio among G7 peers⁽¹⁾
- Growth in the economy has slowed in part due to transitory disruptions to activity in the energy sector, but also because of rising interest rates and limited remaining slack in the economy. GDP is expected to increase at a more moderate pace in 2019 and 2020

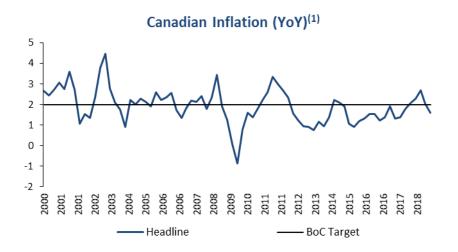


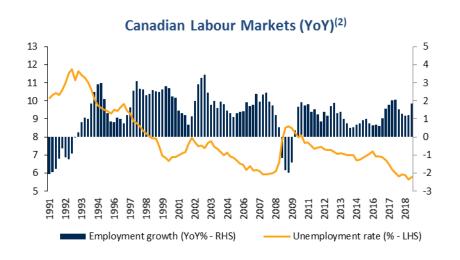




Growth in economy to slow with economy hitting capacity

- Headline inflation eased to 1.6% on average in Q1 on the back of lower energy prices. Underlying inflation trends continue to be around the Bank of Canada's 2% midpoint target with limited slack in the economy keeping a floor under prices
- Labour markets continued to improve. The unemployment rate ticked up to 5.8% on average in Q1/2019 from a cycle-low 5.6% in Q4/2018 but is still historically very low
 - Alberta remains a soft spot with a 7.0% unemployment rate in Q1 still elevated
- GDP growth slowed significantly in Q4/2018 (0.4%, annualized) and looks to have been similarly soft in Q1/2019 (RBC economics tracking a 0.7% increase). Transitory disruptions in the oil & gas sector and bad weather appear to have been factors, though. We expect underlying growth trends are somewhat stronger. We expect GDP increases of 1.5% in 2019 and 1.8% in 2020





2019 Economic Outlook



		Projected Economic Indicators for 2019 ⁽¹⁾				
	GDP Growth	Inflation	Unemployment Rate ⁽²⁾	Interest Rate (3 mth T-bills)	Current Account Balance/GDP ⁽²⁾	Budget Surplus/GDP ⁽³⁾
Canada	1.5%	2.0%	5.9%	1.65%	(2.0%)	(0.6%)
U.S.	2.6%	2.0%	3.7%	2.4%	(2.3%)	(4.6%)
Euro Area	1.2%	1.0%	7.8%	NA	3.0%	(1.0%)
Canada	gain in 2017. The Housing activity Consumer spen healthy. The Bank of Ca economy still apwould push the	 The Canadian economy is forecast to grow by 1.5% in 2019 following a 1.8% increase in 2018 and a 3.0% gain in 2017. This year likely got off to a slow start due to weakness in the energy sector and bad weather. Housing activity has been stabilizing at lower levels following policy changes and rising interest rates. Consumer spending has also increased at a more moderate pace, though the labour market remains healthy. The Bank of Canada is no longer signaling that short-run interest rates will be hiked any time soon. The economy still appears to be healthy on balance but there is little sign of inflation pressures emerging that would push the central bank to hike rates quickly. We do not expect any additional hikes to the overnight target rate through 2020. 				
U.S.	 The U.S. economy is forecast to grow by 2.6% in 2019 following a 2.9% gain in 2018. Both are above the economy's longer run trend. Consumer spending is likely to increase at a more moderate rate as the effects of income tax cuts continue to fade, though a strong labour market and rising wages will support spending. Business investment is expected to continue to increase but could be dampened somewhat by market volatility and concerns about trade policy and global growth. The U.S. Federal Reserve still looks firmly on hold in terms of possible further interest rate hikes. The U.S. economy continues to look healthy, but benign inflation pressures and giving the central bank the option for patience. 					
Euro Area	 Euro area GDP growth is expected to slow to a 1.2% pace in 2019 following a 1.8% increase in 2018. Some of the recent loss of momentum reflects political uncertainty, as well as the impact of slowing global growth on the industrial sector. Inflation remains low despite the strengthening economic backdrop, though wage growth picked up in 2018. The European Central Bank ended net asset purchases at the start of the year. Their guidance is for rates to remain on hold this year. 					





Structural backdrop to the Canadian and U.S. housing market

	Canada ⁽¹⁾	U.S. ⁽¹⁾
	 Government influences mortgage underwriting policies primarily through control of insurance eligibility rules 	 Agency insured only if conforming and LTV under 80%
	Fully insured if loan-to-value (LTV) is over 80%	 No regulatory LTV limit – can be over 100%
	 Must meet 5-year fixed rate mortgage standards 	 Not government-backed if private insurer defaults
	 Government-backed, on homes under \$1MM 	
Degulation	 Down-payment over 20% on non-owner occupied properties 	
Regulation	 CMHC last increased mortgage loan insurance premiums in 2017 by ~15% for new mortgages with LT over 90% 	-V
	 Minimum down payment for new government-back insured mortgages is 10% for portion of the value of a home being purchased that is between \$500,000 – \$999,000, and 5% below \$500,000 	
	Re-financing cap of 80% on non-insured	
Consumer	Mortgage interest not tax deductible	Mortgage interest is tax deductible
Behaviour	Greater incentive to pay off mortgage	 Less incentive to pay down mortgage
	Strong underwriting discipline; extensive documentation	Wide range of underwriting and documentation
Lender	 Most mortgages are held on balance sheet 	requirements
Behaviour	 Conservative lending policies have historically led to low delinquency rates 	 Most mortgages securitized
Lenders'	 Ability to foreclose on non-performing mortgages, with no stay periods 	 Stay period from 90 days to one year to foreclose on non-performing mortgages
Recourse	 Full recourse against borrowers⁽²⁾ 	 Limited recourse against borrowers in key states

RBC

Legislation and policies – promoting a healthy housing market

February 2018 - Government of British Columbia

• The B.C. government's 2018 budget included a 30-point plan to address housing affordability issues in several areas of the province. The most significant changes are a new speculation tax (rising from 0.5% of assessed value in 2018 to 2% in 2019) that will apply to homeowners who do not pay income tax in the province, as well as an increase in the foreign buyer tax to 20% from 15%

January 2018 - OSFI

 Qualifying rate for uninsured mortgages raised to 2 percentage points above the contract rate or the five-year posted rate, whichever is higher

April 2017 – Government of Ontario

 Introduced 16 measures in a 'Fair Housing Plan' to address mounting risks in the housing market including a 15% Non-Resident Speculation Tax on the purchase price of homes in the Greater Golden Horseshoe region

January 2017 - City of Vancouver

Vancouver introduced a tax of 1% of the assessed value of each home which is vacant (principal residence is exempt)

October 2016 - Department of Finance

- Qualifying rate for high-ratio mortgages with a term of five years or more is changed to the 5-year posted rate
- Portfolio-insured low-ratio mortgage loans must meet the eligibility criteria of high-ratio insured mortgage
- Any sale of a principal residence must be reported in the seller's tax return for the year of sale, even if the entire gain is fully protected by the principal residence exemption

July-August 2016 - OSFI & the Government of British Columbia

- OSFI increased scrutiny on mortgage underwriting standards and indicated it will place a greater emphasis on confirming internal
 controls and risk management practices are sound, and take into account market developments
- Foreign buyers registering the purchase of residential homes in Metro Vancouver become subject to an additional property transfer tax of 15% under legislation introduced by the British Columbia government

RBC

Legislation and policies – promoting a healthy housing market

December 2015 - Department of Finance

 Minimum down payment for new government-backed insured mortgages increased from 5% to 10% for portion of the value of a home being purchased that is between \$500,000 and \$999,999 (came into effect February 2016)

April 2014 - CMHC

Discontinued offering mortgage insurance on 2nd homes and to self-employed individuals without 3rd party income validation

July 2012 - CMHC

- Maximum amortization on government-backed insured mortgages reduced to 25 years from 30 years
- Maximum amount that can be borrowed on a mortgage refinancing lowered to 80% from 85%
- CMHC insurance availability is limited to homes with a purchase price of <\$1 million lowered from \$3.5 million
- Set the borrower's maximum gross debt service ratio at 39% and maximum total debt service ratio at 44%

March 2011 - CMHC

- Maximum amortization on government-backed insured mortgages reduced to 30 years from 35 years
- Maximum amount that can be borrowed on a mortgage refinancing lowered to 85% from 90%

February 2010 – Department of Finance

- Borrowers with insured mortgage terms of less than five years must meet the standards for a five-year fixed rate mortgage
- Maximum amount that can be borrowed on a mortgage refinancing lowered to 90% from 95%
- Minimum 20% down payment is required in order to qualify for government-backed mortgage insurance on non-owner-occupied properties

July 2008 - Department of Finance

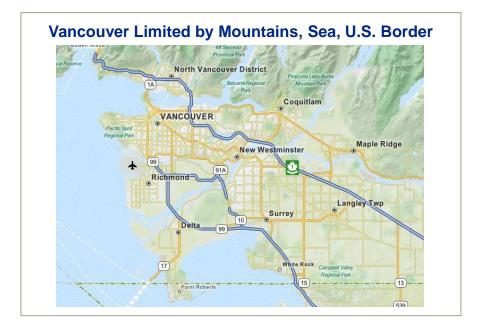
- Maximum amortization on government-backed insured mortgages reduced to 35 years from 40 years
- A minimum 5% down payment is required in order to qualify for government-backed insured mortgages
- Additional minimum credit score requirements, new loan documentation standards, setting a maximum of 45% on borrowers total debt service ratio





- Constraints on undeveloped land around Toronto / Vancouver, have contributed to a shift to higher-density condo housing
 - Provincial growth plan, including 'Green belt' surrounding Toronto, contains urban sprawl and favours condo development
 - Vancouver is restricted in its ability for urban sprawl due to land constraints away from the city center
- Canada has one of the highest per capita rates of permanent immigration in the world⁽¹⁾
 - 22% of Canada's population is foreign born (7.5 MM), highest proportion among the G8 nations (1)
 - 56% of all new immigrants to Canada move to Toronto, Vancouver or Montreal⁽¹⁾
- RBC's exposure to condo development is limited about 3% of our Canadian commercial loan book⁽²⁾
 - Condo exposure is about 10% of our Canadian residential mortgage portfolio⁽²⁾⁽³⁾



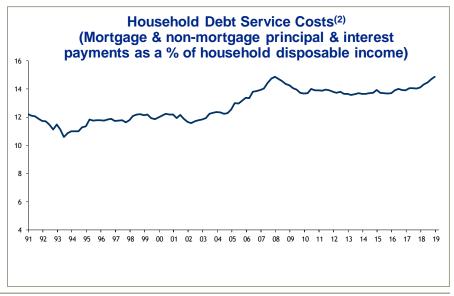






- The stress test introduced on January 1 2018 for uninsured mortgages, had a cooling impact across Canada. The stress test, along with increases in interest rates, caused home resales to decline for a second-straight year by 11% in 2018. In 2017, regulatory changes at the federal and provincial levels in BC and Ontario contributed to a nearly 5% decline in home resales in Canada. To a large extent, this is a 'soft landing' engineered by policy makers
- Demand-supply conditions, however, remain balanced nationally and in most local markets including Toronto where
 prices have now stabilized after softening in 2017 on the heels of Ontario's Fair Housing Plan. Property values are
 generally on a modest rise in Canada except in Vancouver and oil producing regions where market conditions are
 currently weak
- Solid population growth, household income gains and low unemployment rates limit the risk of a downward spiral
- Poor housing affordability is being skewed at the national level by severe conditions in Vancouver and Toronto.
 Affordability is in line with historical norms in most other markets across Canada
- Canada's household debt service ratio showed a small uptick in 2018 and is poised to rise further near term
- Lenders maintaining strong underwriting discipline and require extensive documentation
 - Most mortgages held on balance sheet and conservative lending policies have led to low delinquency rates

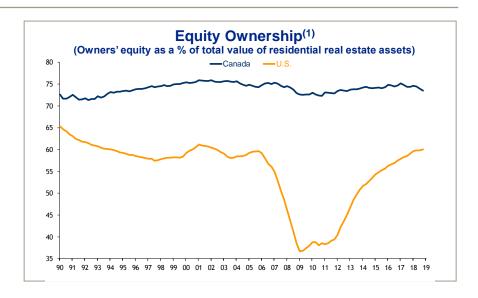


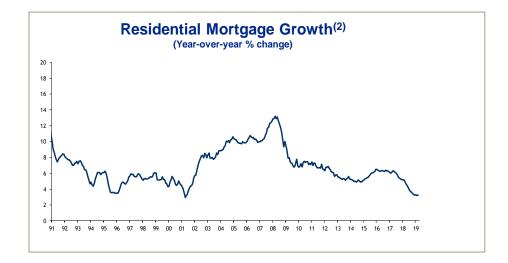


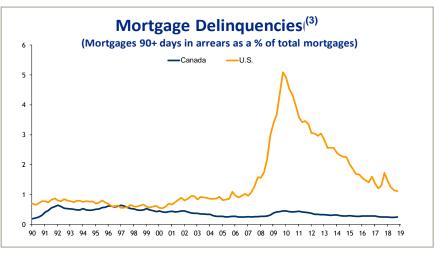


Canadians have significant equity ownership in their homes

- Canadians carry a significant and stable amount of equity in their homes
- The pace of residential mortgage accumulation slowed markedly since early-2017 to a 17-year low in 2018 and early 2019
- Mortgage delinquency rates remain very low in Canada and have been stable through recent credit cycles
- RBC monitors its residential mortgage and broader retail portfolios closely and performs stress tests for dramatic movements in house prices, GDP, interest rates, and unemployment rates







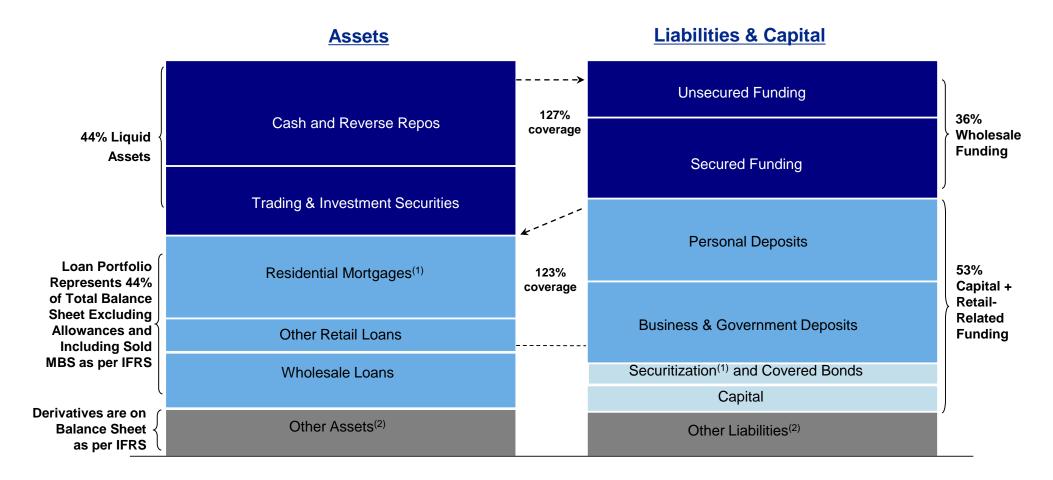
Appendix A – Liquidity & Funding



Strength of a high quality liquid balance sheet



\$1,379 Billion (as at April 30, 2019)



Appendix 35

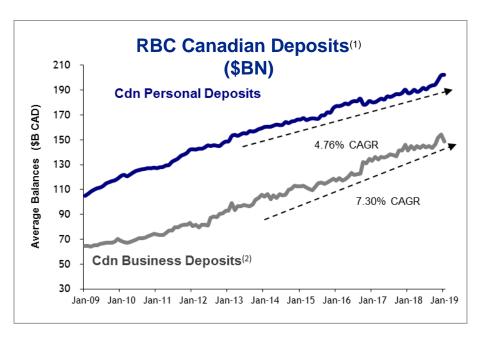




Leveraging the strength of our distribution channels and successful deposit initiatives to drive growth

Canadian relationship deposits

- Initiated successful strategies to grow relationship deposit base
- Canadian relationship deposits continue to grow
- RBC Canadian personal deposit market share is at 19.6% as of Jan 2019
- RBC Canadian commercial demand deposit market share is at 25.6% as of Jan 2019



RBC Relationship Deposits (\$BN) Q2 2019 Q2 2018 HISA (3) \$31 \$34 Advisory Channel Deposits (4) \$35 \$31 Other Personal Deposits 202 \$187 **Business Deposits** 300 \$283 **Total Deposits** \$571 \$532

Appendix 36

Well-diversified wholesale funding platform



- Well-diversified across products, currencies, investor segments and geographic regions
- Raise majority of funding in international markets, preserving significant domestic capacity which can be more readily tapped in stressed market conditions
- Regular issuance in all major markets to promote investor engagement and secondary market liquidity

Canada

- Canadian Shelf (C\$25BN)
- Securitizations (Canadian mortgage bonds, NHA MBS⁽¹⁾ and credit cards)

U.S.

Canad

28%

 SEC Registered Shelf (US\$40BN)

Europe and Asia

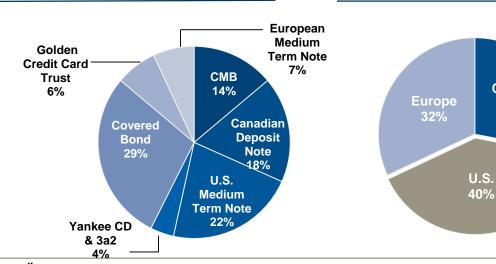
- European Debt Issuance Program (US\$40BN)
- Covered Bond Program (EUR 32BN)
- Japanese Issuance Programs (JPY 1 trillion)

Well Diversified by Product⁽²⁾



Recent Deals

- €500MM Green Bonds 5-year unsecured (bail-in) at LIBOR+61bps
- US\$1.5 Billion 3-year unsecured (bail-in) at LIBOR + 47bps
- €100MM 20-year Covered Bonds at LIBOR + 38bps



RBC Covered Bond Program



Globally Active

- Active program in six different currencies: EUR, CAD, USD, CHF, AUD and GBP
 - C\$38BN currently outstanding

Strong Issuer

- Largest Canadian bank by market capitalization
- Strong credit ratings
- Well capitalized and consistent historical profitability
- Well diversified business mix

Canadian Legislative Changes



- Canadian legislation protects claims of covered bond investors and overrides any other conflicting law related to bankruptcy and insolvency
 - Extensive regulatory oversight and pool audit requirements
 - Mandatory property value indexation

U.S. Market



- Active U.S. dollar covered bond issuer
- Several benchmark bonds outstanding
- Broad U.S. investor base
 - Issued US\$17.2BN across eight deals since September 2012
 - Trace eligible

Appendix 38

Note to users



We use a variety of financial measures to evaluate our performance. In addition to generally accepted accounting principles (GAAP) prescribed measures, we use certain key performance and non-GAAP measures we believe provide useful information to investors regarding our financial condition and result of operations. Readers are cautioned that key performance measures, such as ROE and non-GAAP measures, including amounts excluding Corporate Support, Insurance efficiency ratio, average loans and acceptances excluding certain items, and cash earnings excluding the after-tax effect of amortization of intangibles, do not have any standardized meanings prescribed by GAAP, and therefore are unlikely to be comparable to similar measures disclosed by other financial institutions.

Additional information about our ROE and non-GAAP measures can be found under the "Key performance and non-GAAP measures" sections of our 2018 Annual Report and Q2 2019 Report to Shareholders, as well as in our Q2 2019 Supplementary Financial Information.

Definitions can be found under the "Glossary" sections in our Q2 2019 Supplementary Financial Information and our 2018 Annual Report.

Investor Relations Contacts

Nadine Ahn, SVP Wholesale Finance and Investor Relations (416) 974-3355
Asim Imran, Senior Director, Investor Relations (416) 955-7804

Jennifer Nugent, Senior Director, Investor Relations (416) 955-7805

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