BANK OF CANADA
BANQUE DU CANADA

ANNUAL REPORT 2017

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The *Annual Report* is available on the Bank of Canada's website at bankofcanada.ca.

For further information, contact:

Public Information Office
Communications Department
Bank of Canada
234 Wellington Street
Ottawa, Ontario K1A 0G9
Telephone: 613-782-8111; 1-800-303-1282 (toll-free in North America)
Email: info@bankofcanada.ca
Website: bankofcanada.ca

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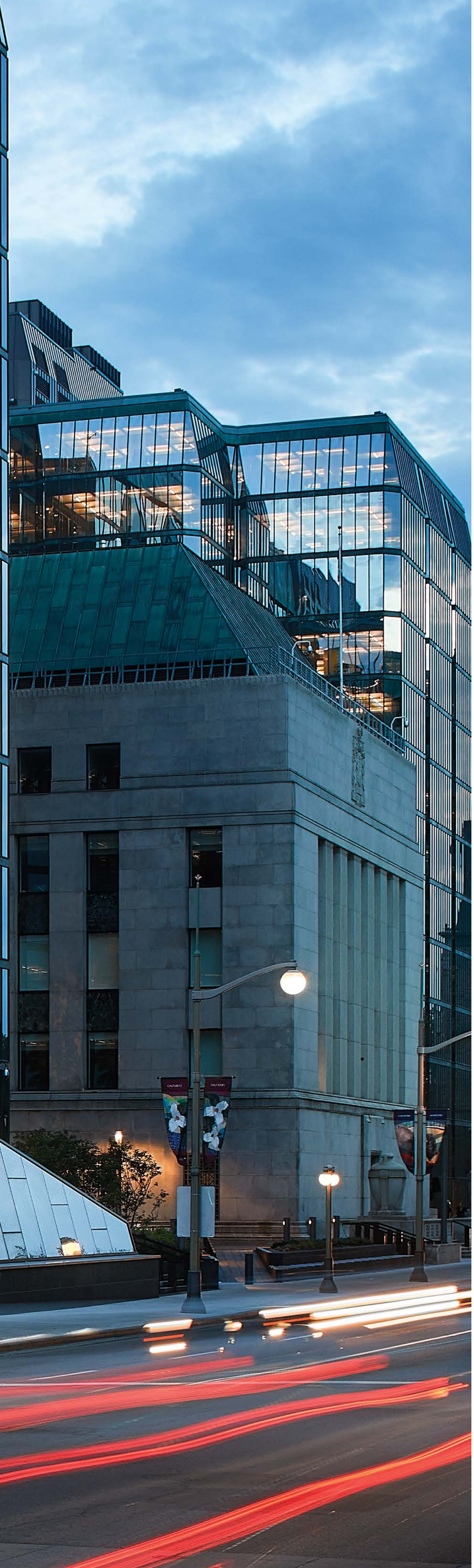


Contents

Governor Stephen S. Poloz and Senior Deputy Governor Carolyn A. Wilkins exit through the Wellington Street doors to attend a briefing at the nearby Parliament buildings. The classical granite "centre building," completed in 1938, was renovated and upgraded as part of head office renewal.

GOVERNOR'S FOREWORD

2017: A year of significant progress

This past year, Canadians marked the 150th anniversary of Confederation—a major milestone for our relatively young country. From coast to coast to coast, unique events captured the imaginations of young and old, drew many international visitors and reminded everyone what makes this country so special.

Here at the Bank of Canada, we marked this special anniversary with the release of a commemorative $10 bank note just ahead of the July 1st Canada Day celebrations. This is the first time that four individuals are portrayed on the front of a Canadian bank note, including the first Canadian woman and the first Indigenous person. The commemorative note portrays two fathers of Confederation, Sir John A. Macdonald and Sir George-Étienne Cartier; Canada's first female Member of Parliament, Agnes Macphail; and James Gladstone, or Akay-na-muka (his Blackfoot name), the first Senator of First Nations origin. The reverse side of the note depicts four iconic scenes from across Canada beneath a beautiful rendition of the northern lights.

We also opened the reimagined Bank of Canada Museum in Ottawa on July 1, where all Canadians can learn about the Bank and discover how the work we do fits into their daily lives. Nearly 3,000 visitors explored the museum on its first day, and more than 42,000 people came through the doors in the first six months.

Behind these high-profile, symbolic developments, the Bank made significant progress in several important areas, not least of which was in the Canadian economy itself. Indeed, Canadians can look back at 2017 with considerable satisfaction. We saw economic growth of some 3 per cent, the highest in the G7; more than 400,000 new jobs were created; and inflation remained very close to the 2 per cent target. Economic indicators paint a positive picture for 2018 as well.

In this much-improved context, the Bank raised its policy interest rate twice—in July and September—reversing the rate cuts that had been put in place during 2015 to help the economy adjust to the large drop in oil prices. Although some areas in the economy are still adjusting, the overall economy is operating close to potential and inflation is near target, except for some temporary factors affecting the inflation data. Should this continue, the economy will need less monetary stimulus over time—a clear sign of progress. However, the Bank will remain cautious in adjusting its interest rate, since a number of uncertainties remain.

Uncertainty has been the watchword for monetary policy for the past several years. Inflation has tended to run below expectations in many advanced economies. While much of the downward pressure on inflation in Canada was the result of slack in the economy, other factors could be at play, such as developments in the digital economy, or heightened international competition. The Bank needs to understand these undercurrents to achieve its inflation target.

A related matter is that wages—a key element of the inflation process—have not picked up by as much as one might expect, given the strong advance in employment observed over the past year. We believe this indicates there is more labour market slack than meets the eye, considering the possible re-entry of people into the workforce, especially older workers or youth who stayed in school while the economy was underperforming. Therefore, the economy may have more capacity than traditional measures would suggest, meaning that it can grow above potential for longer without generating higher inflation.

"Although some areas in the economy are still adjusting, the overall economy is operating close to potential and inflation is near target."

All the above uncertainties are essentially positive. They suggest there is more upside potential in Canadian living standards now that the economy is firing on all cylinders. But there are also downside risks. In the context of very low interest rates and rising house prices, some Canadian households have accumulated a considerable debt load in recent years. That means the economy may be more sensitive to higher interest rates today than in the past, and the Bank will need to monitor this sensitivity in real time. It is noteworthy that elevated financial sector vulnerabilities are expected to begin to ease in the months ahead for the first time in years. This is because the economy is stronger, making higher levels of debt more serviceable, and strengthened mortgage-lending rules will make new mortgages more resilient than the existing stock of debt.

A more immediate concern, however, is the future of the North American Free Trade Agreement (NAFTA). Uncertainty about NAFTA is already affecting business investment decisions in Canada. The Bank is monitoring this risk to the economy very closely.

Getting back to the theme of progress, the Bank returned to its renewed head office at the beginning of 2017, with rave reviews from staff. My colleagues and I hosted many guests from Canada and around the world, including His Excellency Governor General David Johnston; members of the Senate Committee on Banking, Trade and Commerce and the House of Commons Standing Committee on Finance; prominent architects and heritage experts; business people; other central bankers; and the media.

We participated in the City of Ottawa's annual "Doors Open" event on June 4, welcoming some 800 visitors that day. The Bank also received a City of Ottawa Urban Design Award recognizing our revitalized outdoor public spaces.

The Bank also made significant progress in its medium-term plan during 2017—a plan structured around reinventing central banking, renewing ways of doing business and reinforcing a culture of innovation. A few highlights are worth touching on.

First, in 2017 we made substantial investments in our economic models. In particular, we upgraded our main monetary policy model, the Terms-of-Trade Economic Model, to incorporate a richer structure of housing and household debt dynamics. This is helping us to understand and forecast the behaviour of the economy in the presence of elevated household debt.

Second, we did some important experimental work using distributed ledger technology. Our interest in this technology comes from its potential to reduce transaction costs for financial system participants and to simplify the clearing and settlement of securities such as stocks and bonds. This research is still in its early days but is showing promise.

A third significant area of work is in the modernization of Canada's payments systems. Working closely with Payments Canada, the Bank oversaw the development of a three-phase, multi-year modernization plan, and the right resources are now in place to implement it.

Fourth, the Bank made large investments in the resilience of its own operations and those of the financial system. Cyber risk is rapidly emerging as a top priority for the financial system. The system's high degree of interconnectivity means that a successful attack on one member can become a successful attack on all. We are working closely with the principal players to ensure that our system's defences are best-in-class, and that we have robust recovery plans in place should an attack occur. In terms of its own resilience, the Bank has replicated some mission-critical functions outside its head office and is in the process of establishing redundant operational capability well outside the Ottawa region to ensure business continuity in the event of major disruptions in our primary locations.

Other areas of progress are also noteworthy. In 2017 we launched a new cycle of research for the next renewal of our inflation-target agreement in 2021. We hosted a conference with external experts to discuss fundamental issues related to our monetary policy framework, broadcasting it live on the web. We named an Advisor for Communications to the senior leadership of the Bank, embedding communications as a core part of our policy deliberation process. We made the decision, beginning in 2018, to schedule speeches by Governing Council members following each interest rate decision for which we do not issue a *Monetary Policy Report*, which is four times per year. And, after an extensive consultation process, a new regular $10 bank note featuring human rights icon Viola Desmond was designed and has entered production. The new note will hit the streets in late 2018.

None of these achievements would be possible without the best staff, which in turn means offering a work environment that is second to none. Being named one of Canada's Top 100 Employers for the eighth year running was testament to efforts made across the entire organization, for which I am very grateful.

I also wish to offer my sincere thanks to our Board of Directors, a group of dedicated people drawn from all of Canada's regions. They hold us to the highest standards, for Canadians deserve a leading central bank that is dynamic, engaged and trusted, committed to a better Canada.

Stephen S. Poloz
Governor

2017 AT A GLANCE

3.0%
Canada's real GDP growth in 2017[1]

2%
Inflation-control target—renewed in 2016

1.0%
Policy interest rate (December 31, 2017)

411
Total number of sessions held in the Bank's IdeaSpace to promote innovation

2.4 billion
Total number of bank notes in circulation

$142 billion
Gross value of marketable bonds to be issued in 2017–18

86%
Percentage of bank notes in circulation made of polymer

1.8 million
Page views of the C150 commemorative bank note website

42,755
Total number of visitors to the new Bank of Canada Museum

80 US cents
Exchange rate for 1 Canadian dollar (December 29, 2017)

$4.6 billion
Canada's total outstanding retail debt in 2017

1.6%
Average total CPI inflation

1 Estimate as at December 31, 2017

$1.2 billion

Amount remitted by the Bank of Canada in 2017 to the Receiver General of Canada

$975.7 million

Net income for the Bank in 2017

91%

Percentage of employees surveyed who would recommend the Bank of Canada as a good place to work

$76.6 billion

Market value of liquid reserves held in the Exchange Fund Account in US dollars (December 31, 2017)

$6.15 billion

Final demand for Canada's US$3.0 billion 5-year Global Note issued in November in US dollars

55

Number of Bank research papers published in academic journals

$281,872

Total staff donations to the Bank of Canada workplace charitable campaign

1,700

Approximate number of Bank of Canada employees

MANAGEMENT DISCUSSION AND ANALYSIS

Governor Poloz and Senior Deputy Governor Wilkins answer questions at the news conference following the release of the November Financial System Review.

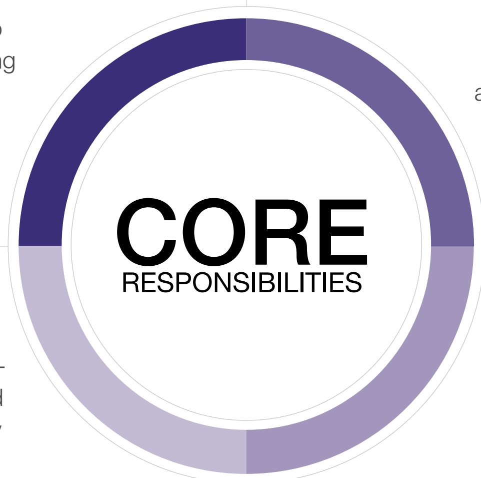
BANK OF CANADA MANDATE AND PLANNING FRAMEWORK

Mandate

The Bank of Canada is the nation's central bank. Its mandate, as defined in the *Bank of Canada Act*, is "to promote the economic and financial welfare of Canada."

The Bank's vision is to be a leading central bank—dynamic, engaged and trusted—committed to a better Canada.

The four core areas of responsibility are as follows:



MONETARY POLICY:
The objective of monetary policy is to preserve the value of money by keeping inflation low, stable and predictable.

FINANCIAL SYSTEM:
The Bank promotes safe, sound and efficient financial systems, within Canada and internationally; oversees major clearing and settlement systems; and conducts transactions in financial markets in support of these objectives.

CURRENCY:
The Bank designs, issues and distributes Canada's bank notes; oversees the note distribution system; and ensures a consistent supply of quality bank notes that are readily accepted and secure against counterfeiting.

FUNDS MANAGEMENT:
The Bank provides funds-management services for the Government of Canada, itself and other clients. For the government, the Bank provides treasury-management services and acts as fiscal agent for the government's public debt and foreign exchange reserves.

Planning framework

The Bank has a robust planning framework in place to implement and operationalize its mandate and vision. Every three years, the Bank establishes a medium-term plan (MTP) to set out its strategic direction and objectives.

Central Banking for a New Era: The Bank of Canada's 2016–18 Medium-Term Plan enables the Bank to continue its tradition of excellence while enhancing its readiness for the future.

The MTP helps the Bank respond to the realities of its policy and operating context, anchors annual planning and budgeting activities, and serves as the foundation for departmental and staff performance agreements.

Reporting

The *Annual Report* is the Bank of Canada's public accountability document, outlining its financial and non-financial performance each year. The Bank of Canada also publishes quarterly financial reports.

The Bank maintains a comprehensive website featuring a variety of research papers, speeches, public reports, data and audiovisual materials to promote public understanding of its ongoing work.

More information

- *Central Banking for a New Era: The Bank of Canada's 2016–18 Medium-Term Plan*

The 2016–18 medium-term plan

The 2016–18 MTP is built on a foundation of three themes that, together, bring to life the vision of being a leading central bank that is dynamic, engaged and trusted.

REINVENT

RENEW

REINFORCE

Theme 1: Reinventing Central Banking

Strategic goals	1.1 Advance the frontiers of monetary policy frameworks and research to build economic resilience 1.2 Incorporate financial stability considerations into the Bank's policy advice and operations 1.3 Ensure sound and effective payment systems, methods and technologies 1.4 Consider the implications of alternative futures
Progress in 2017	▪ Made significant enhancements to the Bank's economic models, including ToTEM, the Terms-of-Trade Economic Model ▪ Advanced development of nexus models to link financial stability and monetary policy ▪ Implemented the 2017 research plan, with more papers published on the web and in academic journals ▪ Rolled out the Canada 150 commemorative bank note, with a total of 40 million notes issued ▪ Strengthened connections with Canada's financial markets ▪ Continued leadership and important partnerships on financial technology (fintech) and digital currencies ▪ Contributed to Payments Canada's vision for the future of Canada's payment systems
Key areas of focus in 2018	▪ Continue to build the next generation of monetary policy models, supported by a renewed analytic environment ▪ Further integrate the nexus suite of models in policy analysis ▪ Provide support to Payments Canada on the modernization of payment systems ▪ Continue to provide policy advice and conduct research related to the implications of fintech ▪ Issue the 2018 Viola Desmond $10 bank note, while continuing research, development and design for the next bank note, to be issued in 2021 ▪ Launch the new financial system survey

Theme 2: Renewing Ways of Doing Business

Strategic goals	2.1 Be connected and transparent 2.2 Be nimble and resilient
Progress in 2017	▪ Returned to the Bank's renewed head office and transitioned staff to the new operating environment ▪ Hosted a record number of Bank events to welcome stakeholders, central banks and the public to the new facility ▪ Continued renewal of human resources programs, processes and tools, including a new approach to performance and development, and an updated compensation framework ▪ Advanced planning for an alternative site to ensure the long-term resilience of Bank operations ▪ Emphasized cyber security as a priority for the Bank and financial system partners ▪ Increased partnerships and collaboration with internal and external stakeholders ▪ Introduced improved internal operating processes ▪ Opened the new Bank of Canada Museum, attracting a record number of visitors ▪ Enhanced outreach activities with sources of business, economic and market intelligence ▪ Promoted digital approaches to delivering information to the public and Bank employees
Key areas of focus in 2018	▪ Continue to enhance cyber security and business recovery capabilities, including the relocation of some mission-critical functions ▪ Continue to build the foundation for a modernized auction system ▪ Implement an action plan to attract and retain researchers ▪ Further develop and promote the Bank of Canada Museum

Theme 3: Reinforcing a Culture of Innovation

Strategic goals	3.1 Nurture a culture where innovative ideas and creative solutions are expected 3.2 Enhance business innovation and knowledge sharing
Progress in 2017	▪ Held an innovative multimedia workshop to promote dialogue on the 2021 renewal of the inflation-targeting agreement ▪ Encouraged use of novel techniques and new sets of data to analyze the Canadian economy ▪ Made extensive use of the IdeaSpace, the Bank's innovation lab, to design creative solutions and develop new ways of working ▪ Provided training and tools for leaders and employees to support learning and innovation ▪ Implemented programs to embed innovation in day-to-day thinking and internal processes ▪ Launched a new master's scholarship award for women in economics and finance
Key areas of focus in 2018	▪ Enhance programming and tools to help leaders foster innovation and inspire and coach employees ▪ Introduce leading-edge employee development programs ▪ Adjust information technology processes to support integration of managed and cloud services ▪ Increase staff access to more sophisticated analytic data ▪ Continue with a digital approach to Bank communications, content and data

MONETARY POLICY

Monetary policy in 2017

The Canadian economy grew rapidly in 2017, supported by stimulative monetary and fiscal policies. The growth was broad-based, with investment finally picking up. Strong growth in the first half of the year moderated somewhat in the second half, and the economy ended the year close to its potential level.

In this context, the Bank reduced the amount of monetary stimulus in 2017 by increasing the policy interest rate to 1 per cent—the level it was prior to the sharp drop in oil prices that started in the middle of 2014. Two rate increases, by one-quarter of a percentage point each, were made in July and September.

Total consumer price index (CPI) inflation, supported by higher gasoline prices, was very close to the Bank's 2 per cent inflation-control target at the start of 2017. Subsequently, a combination of temporary factors and the impact of earlier economic slack resulted in a weakening of inflation. As some of those factors dissipated and gas prices firmed again, inflation rebounded to end the year close to the target.

Medium-term inflation expectations have continued to be well anchored at the 2 per cent target

<table>
<tr><th>Objectives and indicators</th><th>Reference level (per cent)</th><th>2013 (per cent)</th><th>2014 (per cent)</th><th>2015 (per cent)</th><th>2016 (per cent)</th><th>2017 (per cent)</th></tr>
<tr><td colspan="7">Achievement of Bank target for CPI inflation</td></tr>
<tr><td>Average yearly total CPI inflation[a]</td><td rowspan="2">2.0</td><td>0.9</td><td>2.0</td><td>1.1</td><td>1.4</td><td>1.6</td></tr>
<tr><td>Average cumulative total CPI inflation since 2001[b]</td><td colspan="5">1.9</td></tr>
<tr><td colspan="7">Expectations of inflation remaining anchored to our target</td></tr>
<tr><td>Inflation expectations at a 10-year horizon[c]</td><td>2.0</td><td>2.0</td><td>2.0</td><td>2.0</td><td>2.0</td><td>2.0</td></tr>
</table>

a. Average yearly total CPI inflation is defined as the growth rate in the average price level for 2017 compared with the average price level for 2016.
b. Average cumulative total CPI inflation since 2001 is defined as the compound annual growth rate between the average price level for 2017 and the average price level for 2001.
c. Consensus Economics—10-year projections

The Bank of Canada's role

The primary objective of Canada's monetary policy is to enhance the well-being of Canadians by contributing to sustained economic growth, increased levels of employment and an improved standard of living.

Experience has shown that the best way monetary policy can achieve this goal is by giving Canadian households and businesses confidence in the value of their money—in other words, by keeping inflation low, stable and predictable.

This allows Canadians to make informed spending and investment decisions, encourages longer-term investment in Canada's economy, and contributes to sustained job creation and productivity growth.

At the heart of Canada's monetary policy framework is the 2 per cent inflation target, which is the midpoint of a 1 to 3 per cent inflation-control range. The target is set jointly by the Bank and the Government of Canada and is renewed every five years. The inflation target is symmetric: the Bank is equally concerned about inflation rising above or falling below the target.

In its conduct of monetary policy, the Bank's Governing Council takes a risk-management approach within a flexible inflation-targeting framework. Since monetary policy affects the economy with a lag, decisions must be forward-looking and rely on analysis and forecasts by Bank staff, as well as on other insights from external sources. Given that Canada is a small open economy and maintains a flexible exchange rate regime, global forces are an important consideration in the conduct of monetary policy.

Economic context

Increasingly synchronous global growth provided the backdrop for the conduct of monetary policy in Canada in 2017. Stronger global demand supported demand for Canadian goods and services. Meanwhile, the domestic economy continued to show strength, notably in the service sectors.

The complex economic adjustments triggered by the previous sharp decline in the price of oil were essentially complete by the middle of 2017. Growth broadened across regions and components of aggregate demand. Household spending and the housing market continued to show strength, supported by favourable borrowing conditions, rising employment and the effects of the Canada child benefit introduced in 2016.

Despite continued uncertainty about the future of US trade and fiscal policies, business investment was stronger in 2017. This is a significant factor in the economy's potential for growth.

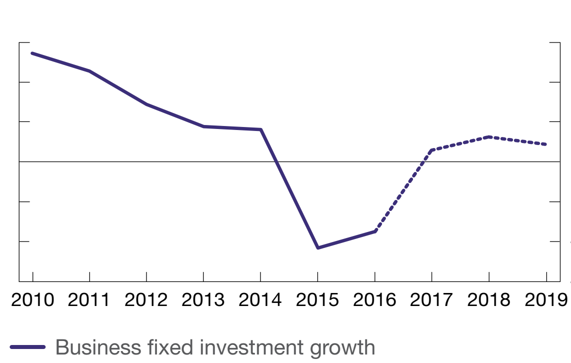
The economy cooled in the second half of the year, amid a decline in exports, particularly within the automotive sector. Housing activity declined, led by a slowdown in Ontario. Nevertheless, the pace of economic growth was projected at year-end to remain above potential growth.

Public spending on infrastructure became increasingly evident in economic data. The labour market showed remarkable strength, with unemployment falling to its lowest level on record at the end of the year. Wages also strengthened, although their growth was modest.

CPI inflation reached a trough of 1 per cent in June. An increase in competition among food retailers and policies to lower electricity costs in Ontario put downward pressure on inflation, as did the impact of past economic slack. Higher gasoline prices then began to push inflation up, and the softness in food inflation also began to fade. Overall, inflation averaged 1.6 per cent in 2017.

For the year, the Canadian economy experienced real growth of 3.0 per cent,[1] roughly twice the pace of the previous year. At year-end, growth was expected to moderate in 2018.

Investment has increased and is expected to grow steadily
Annual data



Sources: Statistics Canada and Bank of Canada estimates and calculations

Achievements in 2017

The Bank's stimulative monetary policy helped inflation come closer to its target in 2017. The decision to raise interest rates twice—and thus reduce the stimulus—was supported by thorough and timely staff research on the major developments affecting the Canadian economy.

Analysis focused on issues linked to the appropriate pace of raising interest rates. Key topics included the sensitivity of the economy and of household financial vulnerabilities to tighter monetary policy, ongoing slack in the labour market, and the investment climate in the wake of ongoing uncertainty about US trade and fiscal policies. Analysts also examined how to account for uncertainty in the conduct of monetary policy and monetary policy communications.

The Bank's main monetary policy model, ToTEM, was updated. ToTEM now better captures the behaviour of borrowers and savers, the implications of high household debt, and the performance of the Canadian housing market in general.

Following the 2016 renewal of its inflation-control target agreement with the Government of Canada, the Bank started preparations in 2017 for the next renewal in 2021. This work involves consultation and research on a wide range of topics related to Canadian monetary policy.

1 Estimate as at December 31, 2017

From left: Nadine Baudot-Trajtenberg (Bank of Israel), Athanasios Orphanides (MIT) and Stephen Williamson (Western University) led a panel discussion on lessons from other central banks at the Bank's workshop "Monetary Policy Framework Issues: Toward the 2021 Inflation-Target Renewal."

To help shape the monetary policy research agenda for the next five years, the Bank hosted a monetary policy workshop involving academics, private sector economists, financial market experts, journalists, labour representatives and other central bankers. Participants explored topics such as the role and objectives of monetary policy; the effectiveness of various policy tools, transparency and communication; and lessons learned from other central banks.

The Bank also undertook research and analysis on the increasing digitalization of the Canadian economy. The digital economy is redefining the way Canadian companies produce goods and services, while changing the type of skills required by employers. Understanding this trend will be crucial to well-founded economic analysis and policy advice in years ahead.

Looking forward

The Canadian economy is expected to continue to operate near its full capacity in 2018, with inflation remaining close to 2 per cent.

While higher interest rates will likely be required over time, Governing Council indicated in December 2017 that it would continue to be cautious, guided by incoming data on the economy's sensitivity to interest rates, the evolution of economic capacity, and the dynamics of both wage growth and inflation.

The Bank will be paying close attention to issues such as the extent to which business investment is creating new economic capacity and the impact on inflation of both globalization and the digital economy.

The Bank will continue to develop the next generation of monetary policy models in 2018 to support its monetary policy analysis. Nexus models, which integrate data related to both financial stability and monetary policy, will be added to the tool kit over time.

Building on the 2017 workshop on monetary policy framework issues, the Bank will continue research on topics such as the efficacy of alternative monetary policies and the implications of the effective lower bound on interest rates.

The Bank will also perform research to deepen its understanding of the channels through which potential changes in trade policy would affect the global economy.

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FINANCIAL SYSTEM

Financial system in 2017

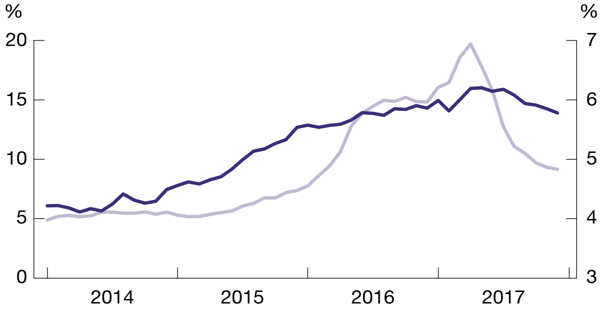
Canada's financial system continues to be resilient. In 2017, it was bolstered by improved economic conditions, new underwriting standards for residential mortgages and the implementation of planned regulatory reforms.

The Bank's two issues of the *Financial System Review* (FSR) in 2017 highlighted the key vulnerabilities and risks facing the financial system and were complemented by short videos that explained key concepts.

As in past years, much of the focus was on high household debt—especially the large share of debt held by highly indebted households—as well as housing market imbalances.

The rise in household indebtedness continues to be driven by strong growth in mortgage credit in Toronto and Vancouver. Increases in house prices were supported by strong demand fundamentals and limited supply, as well as speculative behaviour driven by past price increases. Growth in the national benchmark house price reached a multi-year high early in the year

Growth in mortgage lending remains strong and the national benchmark house price continues to increase



Year-over-year growth in residential mortgage credit and home equity lines of credit (right scale)

Year-over-year growth in the quality-adjusted Canadian benchmark house price (left scale)

Sources: Canadian Real Estate Association, Statistics Canada and Bank of Canada calculations

Last observation: December 2017

The Bank of Canada's role

An effective and resilient financial system is crucial to the long-run stability and growth of the Canadian economy, allowing consumers and firms to purchase goods and services with confidence and to make informed decisions about financial transactions and investments.

Canada's financial system relies primarily on financial institutions, financial markets, and clearing and settlement systems to process a full range of financial activity—saving, borrowing, investing, buying and selling.

The Bank

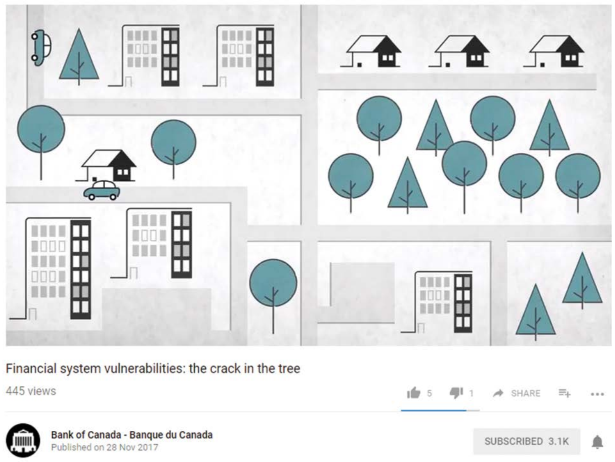
- has specific oversight responsibilities for major clearing and settlement systems, the financial market infrastructures (FMIs) that are designated as systemically important for Canada;
- facilitates the smooth operation of Canadian payment systems and acts as settlement agent, or "banker," for members of Payments Canada that are direct participants in the Large Value Transfer System, Canada's main payment system; and
- provides liquidity on a routine basis and, if required, on an extraordinary basis to a range of Canadian financial institutions and designated FMIs.

The Bank works with the Government of Canada, provincial agencies, market participants, and other central banks and international organizations to ensure that systemically important and prominent FMIs operate in ways that control risk and promote efficiency and stability in Canada's financial system.

More generally, the Bank assesses vulnerabilities and risks to the stability of the Canadian financial system. It communicates this assessment to the public in the semi-annual *Financial System Review,* as well as through public speeches and other channels.

The Bank engages in deliberations on financial regulatory policies both in Canada and internationally. In particular, the Bank is a member of the Senior Advisory Committee that provides advice to the Minister of Finance on policies related to financial stability.

The Bank also participates in international work promoting financial stability, including under the auspices of the Financial Stability Board, the Basel Committee on Banking Supervision, the Committee on Payments and Market Infrastructures, and the Bank for International Settlements.



The Bank used innovative multimedia tools to explain important concepts discussed in the November Financial System Review. *"The crack in the tree" was used as an analogy for vulnerabilities affecting Canada's financial system.*

but then eased, owing, in part, to the introduction of a tax on non-resident purchases in Toronto and its surrounding area.

In late 2016, the federal government introduced measures to tighten the underwriting standards for insured mortgages (those with a down payment of less than 20 per cent). These measures led to a decline in the share of new insured mortgages issued to highly indebted households. Additional changes that will affect uninsured mortgages became effective in January 2018.

Improving economic conditions, higher interest rates and changes to housing finance policies in 2017 were expected to improve the quality of new lending and weigh on housing market imbalances over time.

In 2017, the Bank put an increased focus in the FSR on the vulnerability of the financial system to cyber technology threats. New information technology platforms have allowed the financial sector to deliver services more efficiently, but cyber attacks have the potential to affect both single institutions and the entire financial system.[2]

Achievements in 2017

In 2017, the Bank continued to review and update the policies and operating functions that fall under its mandate to contribute to a more resilient financial system and mitigate emerging risks. This work relies on effective collaboration with partners in the public and private sectors.

The Bank has intensified its focus in recent years on identifying and assessing systemic vulnerabilities and risks in the Canadian financial system, publishing its findings twice a year in the FSR. New data describing individual loans helped to assess vulnerabilities in 2017.

Financial stability and the monetary policy nexus was the theme of the Bank's 26th annual economic conference. The two-day event attracted economists from around the world and advanced understanding of issues such as coordinating monetary and fiscal policy with macroprudential policies, including housing finance and bank capital regulations.

The Bank also made significant progress on the development and use of "nexus" models. These models are used to assess the impact and effectiveness of macroprudential policies, such as regulations related to housing finance and bank capital, and how they interact with monetary and fiscal policies.

The Bank continued to enhance its capacity to stress test both the banking sector and the broader financial system.

Modernizing Canada's payment systems

The Bank contributed to several components of Payments Canada's program to modernize Canada's payment systems. Payments Canada is the organization responsible for the payment system infrastructure that underpins the Canadian financial system and economy.

The Bank helped shape Payments Canada's document, *Modernization Target State*, which was released in late December. The document outlines the key elements for updating Canada's payment systems, infrastructure, rules and standards:

- A new system, called "Lynx," will replace the current Large Value Transfer System, which facilitates secure, real-time large-value payments and supports settlement of other payment networks and financial market infrastructures.

2 See the Managing the Bank of Canada section of this report.

- A new system is planned for clearing retail batch payments, replacing the Automated Clearing Settlement System.
- A new payments infrastructure, the Real-Time Rail, is under development to enable fast, convenient payments and funds transfers for smaller payments. This platform is intended in part to spur innovations in payment services.

Separately, the Bank continued its participation in Project Jasper, an ongoing collaborative research initiative with Payments Canada, several major Canadian banks and the financial innovation consortium R3. A proof of concept has been developed to understand the mechanics, limits and possibilities of distributed ledger technology (DLT).

The project's initial findings, outlined in a discussion paper published in 2017, indicate that DLT for wholesale payments is viable but does not offer significant advantages over current payment systems, which are operating quite efficiently. However, greater benefits may arise from interaction with a larger DLT ecosystem, potentially including the settlement of securities or cross-border transactions.

Financial system policy and regulation

The Bank works with government partners, regulatory authorities and financial institutions to develop and implement policies and standards that contribute to Canada's financial stability and provide a sound foundation for Canada's economic growth.

This includes implementation of the Basel III framework[3] to promote the stability of financial institutions, as well as regulatory reforms related to fixed-income and over-the-counter derivatives markets.

Amendments made in 2017 to the *Payment Clearing and Settlement Act* will enhance the Bank's ability to proactively respond to risks affecting designated financial market infrastructures (FMIs) before they materialize into broader or systemic risks.

The Bank moved to implement its revised policies for Emergency Lending Assistance (ELA), which provides liquidity support to financial institutions in extraordinary circumstances. The list of collateral an institution may use to be eligible for ELA has been expanded. The *Bank of Canada Act* was amended in 2017 to facilitate acceptance of mortgage collateral in these circumstances.

Deputy Governor Sylvain Leduc delivers a speech in May 2017 at the annual meeting of Payments Canada in Toronto. His theme was how upgrading Canada's core payment systems will contribute to financial stability and help the Bank keep inflation on target.

Changes to the Bank's process for publishing foreign exchange rates were implemented in May 2017. Only the 26 currencies traded most actively against the Canadian dollar are now published, based on a new methodology.

Looking forward

- The Bank will continue to track risks and vulnerabilities in Canada's financial system. A new financial system survey will be launched in 2018 to gather market participants' views on systemic risk, and new data sets will be added to the Bank's current monitoring tools.
- The Bank will lead ongoing work to develop an integrated plan to ensure the continuity of Canada's wholesale payment ecosystem should a cyber event affect a large Canadian bank or major FMI.
- As part of its oversight responsibilities for systemically important clearing and settlement systems, the Bank will continue to support the modernization of Canada's payment systems.
- Project Jasper will move into its next phase. The Bank will work with Payments Canada and other partners to study additional potential applications for DLT in the financial system, both in a domestic securities settlement project (with TMX Group) and on a cross-border payment system project (with the Monetary Authority of Singapore).

3 See the Global Engagement section of this report.

Governor Poloz and Senior Deputy Governor Wilkins release the November Financial System Review *at the Bank's conference centre on Wellington Street. The facility was used for the first time since the completion of the Head Office Renewal project in early 2017.*

- The continuous operation of FMIs, including payment clearing and settlement systems, is crucial to the Canadian financial system and the economy more broadly. Financial sector authorities, including the Bank of Canada, will continue work to develop a resolution regime for FMIs that would protect critical services and avoid the need for a public bailout in the highly unlikely event of an FMI failure.
- In collaboration with the Office of the Superintendent of Financial Institutions and the International Monetary Fund, the Bank will advance its use of stress-test exercises to assess the resilience of the financial system. The Bank will also broaden the scope of its own stress-testing work to include more financial institutions.
- Bank staff are working with representatives of the Canadian Securities Administrators and the Department of Finance to develop mandatory transparency requirements for government debt securities. These requirements, when they become effective, will augment existing sources of transparency and support investor protection by facilitating investors' ability to make informed trading decisions.

More information

- Poloz, S. S. 2017. "Three Things Keeping Me Awake at Night." Speech at the Canadian Club Toronto, Toronto, Ontario, December 14.
- The *Financial System Review* was published in June and November.
- Payments Canada released a detailed future view of Canadian payments.
- *Project Jasper: A Canadian Experiment with Distributed Ledger Technology for Domestic Interbank Payments Settlement*
- Chapman, J., R. Garratt, S. Hendry, A. McCormack and W. McMahon. 2017. "Project Jasper: Are Distributed Wholesale Payment Systems Feasible Yet?" *Financial System Review* (June): 1–11.
- Department of Finance Canada. 2017. *Potential Policy Measures to Support a Strong and Growing Economy: Positioning Canada's Financial Sector for the Future* (August 11).
- Bank of Canada exchange rates

Sébastien Bélanger works on the Bank's Exchange Fund Account team. The Bank manages the funding and investment of assets and liabilities in the account on behalf of the Government of Canada.

FUNDS MANAGEMENT

Funds management in 2017

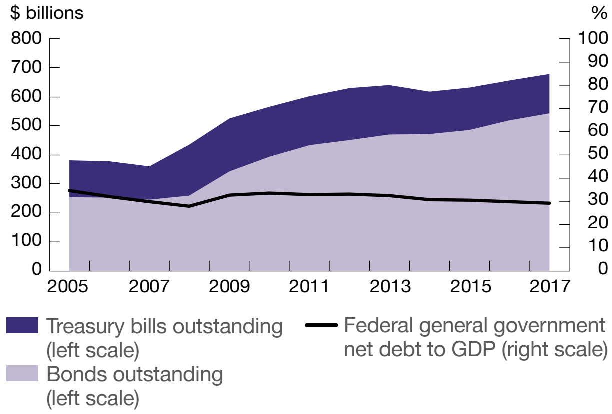
The Government of Canada's borrowing requirements and the outstanding stock of debt increased in 2017, as outlined in the government's annual fiscal plan.

Global interest rates remained low, despite steps toward monetary policy normalization in the United States and some other advanced economies. This created a challenging environment for generating significant returns on Canada's foreign reserves and the Bank of Canada's pension fund assets.

The Bank started the process to discontinue the government's retail debt program, as announced in the 2017 federal budget.

The Bank strengthened its focus on business and operational resilience in its funds-management systems in 2017, given the heightened risk of cyber threats.

Domestic marketable debt outstanding



Sources: Department of Finance Canada, Statistics Canada and Bank of Canada

Achievements in 2017

Consistent with the objectives of the government's debt-management strategy for 2017–18, debt activities focused on refinancing government debt coming to maturity, raising stable and low-cost funding for government programs and services, and maintaining a liquid and well-functioning market for Government of Canada securities.

As always, this involves striking a balance between the costs and risks associated with the debt structure. The government's borrowing needs are driven by the refinancing of maturing debt, expected financial sources or requirements, and changes in cash balances.

The Bank of Canada's role

The Bank

- acts as fiscal agent and banker for the Government of Canada, providing efficient and resilient banking services. It administers and provides advice on the federal government's debt and foreign reserves and, in co-operation with the Department of Finance Canada, develops policies and programs for managing Canada's borrowing and investment activities.
- manages the government's cash balances; conducts auctions for domestic debt; manages the funding and investment of assets and liabilities in the Exchange Fund Account, which contains Canada's liquid foreign exchange reserves; and administers the government's retail debt program.
- provides banking, settlement and custodial services to the Bank, the federal government, official international financial organizations, foreign central banks, designated financial market infrastructures, financial institutions that are members of those systems, and some federal Crown corporations.
- monitors, manages and reports on financial risks related to activities undertaken as fiscal agent of the government, as well as those associated with the Bank's own balance sheet, and acts in a managerial and oversight role for the custodial activities relating to collateral management of domestic and foreign operations.
- conducts research and develops analytical tools to enhance policy advice on funds-management and payment system issues.
- acts, on behalf of the owner, as the custodian of unclaimed balances—Canadian-dollar deposits or negotiable instruments held by federally regulated banks or trust companies for which there has been no activity for a period of 10 years or longer.
- acts as administrator of the Bank of Canada Pension Plan, including managing the assets held in the Pension Trust Fund and the Supplementary Trust Fund.

While the government's cash balances were expected to remain unchanged through 2017–18, refinancing needs for debt expected to mature were projected at December 31 to be $247 billion, in addition to the expected financial requirement of approximately $39 billion.

For the government's 2017–18 fiscal year:

- Gross bond issuance was expected to be $142 billion, representing an increase of about $8.6 billion from 2016–17 levels.
- The stock of treasury bills was expected to be $131 billion at year-end, a decrease of $5.7 billion compared with the previous year.
- The stock of total market debt was expected to reach $729 billion, a year-over-year increase of $33.9 billion.
- The market value of liquid reserves held in the Exchange Fund Account (EFA) was about US$76.6 billion as at December 31, 2017. About 67 per cent of the reserves were invested in US dollars, with the balance held in euros, pounds sterling and Japanese yen.

Bond issuance program

The Government of Canada bond issuance program in fiscal 2017–18 was the largest ever. The Bank of Canada, acting as fiscal agent for the government, executed the borrowing program.

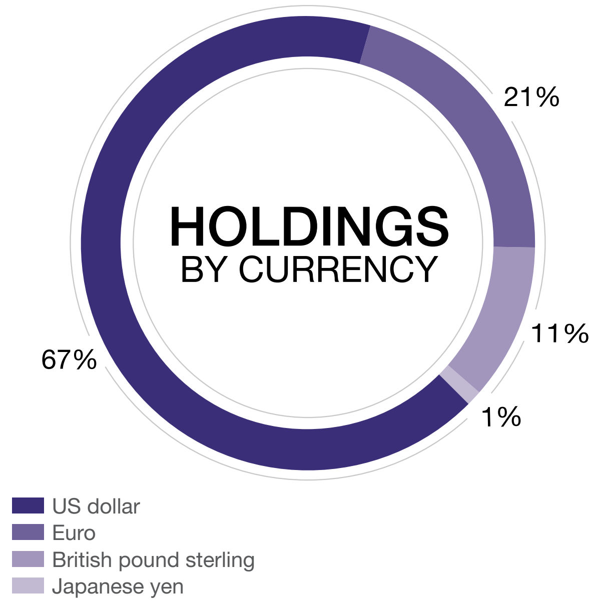
As part of the government's debt-management strategy, bond issuance satisfied the liquidity requirements for each of the core sectors of the program while focusing on short- and medium-term bonds (2-, 3- and 5-year maturities).

The government also chose in 2017 to issue ultra-long bonds[4] to lower funding costs and reduce refinancing risks over a longer term. Ultra-long bonds are not considered part of the government's regular borrowing program and are used at the government's discretion when market conditions are favourable.

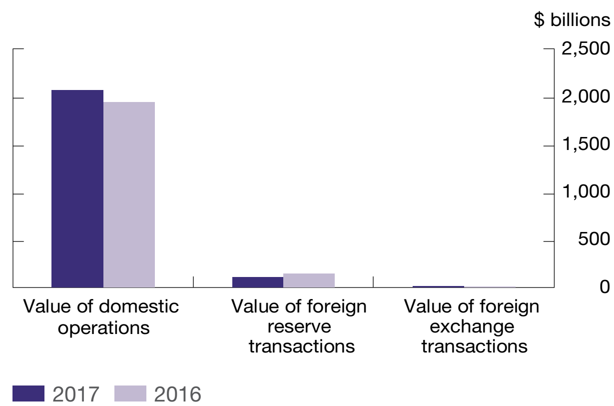
In August, the Bank assisted the government in reopening for the first time the 2.75 per cent December 1, 2064, ultra-long bond, using an auction process instead of syndication. A total of Can$750 million of ultra-long Government of Canada bonds were issued. A second ultra-long bond auction took place in November for an additional Can$500 million.

4 Bonds with maturities of 40 years or longer

Liquid foreign exchange reserves held in the Exchange Fund Account
As at December 31, 2017



Value of market operations



At the government's direction, the Bank assisted in raising funds for Canada at low cost in international markets in 2017. In November, the government issued a US$3.0 billion 5-year global note, with the proceeds used to supplement and diversify Canada's foreign exchange reserves. Acting as fiscal agent, the Bank was instrumental in this activity.

The bond issue was considered successful, with a final spread of +9 basis points to US 5-year treasuries, the best pricing seen by any issuers other than the

US government or its agencies. Final demand was in excess of US$6.15 billion, and there were more than 100 orders, indicating strong interest from all major classes of investors around the world.

Retail debt program

On behalf of the Department of Finance Canada, the Bank services and maintains the government's retail debt, primarily in the form of Canada Savings Bonds (CSBs) and Canada Premium Bonds (CPBs)—including accounting and communications activities and by providing services related to operations and systems support.

The Canada Savings Bonds Program, created in 1946, historically provided the government with a diversified source of funds. However, by 2017 the program was no longer cost-effective—representing just over half of 1 per cent of the government's total debt—or a preferred investment by Canadians. Given these factors, the government decided to discontinue the program.

The Bank started a multi-year process to wind down all retail debt programs, and the sale of bonds ended in 2017. Although all CSBs and CPBs will have matured by December 1, 2021, the Bank will continue to manage the outstanding stock of retail debt products (approximately Can$4.6 billion in 2017) well past that date. Interest on the bonds will accrue until the bond matures or is redeemed, whichever comes first.

The Bank sent notification letters to some 20,000 stakeholders and 800,000 bond owners on the upcoming changes to the CSB program.

Funds-management policy

The government strives to promote transparency and regularity in the management of its debt. In co-operation with the Department of Finance Canada, the Bank develops policies and programs for managing Canada's borrowing and investment activities.

In support of this transparency objective, the Bank published its Canadian debt-strategy model in 2017 to shed light on Canada's debt-issuance strategy, further develop the existing debt model and potentially uncover ideas for alternative debt models. Canada was the first sovereign debt issuer to publicly release the model underpinning its debt strategy.

The Bank also contributed to the development of a debt-management preparedness guide that includes contingency plans for the government to respond to potential stress scenarios where access to funding could be jeopardized. The guide includes tools for debt and treasury managers to use in the event of a crisis.

With respect to the management of Canada's official international reserves, the Bank implemented a new Statement of Investment Policy (SIP), approved by the Minister of Finance in 2016, which governs the acquisition, management and divestiture of assets held in the EFA.

The SIP includes an updated governance structure, strategic asset allocation and an investment benchmark for the management of reserve assets. It also notes the use of internal credit assessments to inform investment decisions.

The Bank has been a global leader among central banks in the area of credit risk management. It attracted representatives from 10 global institutions in 2017 to a two-day expert panel discussion on internal credit rating methodologies for sovereigns. Canada's methodology, part of the credit risk management framework for the EFA, fully implements the recommendations of the Financial Stability Board's *Principles for Reducing Reliance on CRA Ratings*.

In 2017, in its role as administrator of the Bank of Canada Pension Plan, the Bank undertook a formal review of several plan policies and procedures in response to changes to the pension fund's assets in recent years and in preparation for the next triennial study of the fund's assets and liabilities, planned for 2018.

Operations

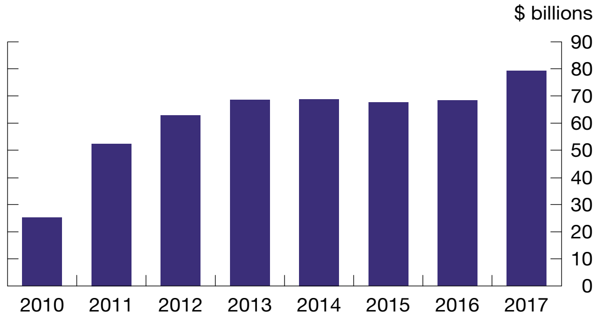
As a prominent partner in ensuring the smooth operation of Canada's financial markets, the Bank adjusted its processes and systems in 2017 to facilitate the transition of Canada's markets for fixed-income, equity and some investment funds from a three-business-day settlement cycle to a two-day cycle.

The Bank laid the groundwork in 2017 to launch a new Unclaimed Balances Management System, which will facilitate the receipt and processing of Canadian-dollar deposits or negotiable instruments held by federally regulated banks or trust companies for which there has been no activity for a period of 10 years or longer.

The existing paper-based claim adjudication system will be replaced by an integrated claim workflow and payment management solution. This will make it easier for the public to search for balances and make claims, and financial institutions will use a secure electronic portal to submit their annual unclaimed balance records. The Bank is working with participating financial institutions to ensure that they are prepared for the change.

Foreign client holdings of securities at the Bank of Canada

End-of-year value, amount in custody



The Bank is also upgrading the internal systems related to its domestic market operations (both as fiscal agent for the Government of Canada and on its own behalf) in support of its financial system, monetary policy and funds-management responsibilities.

The Auction Modernization Initiative (AMI) will involve the introduction of new computer applications and business processes for a variety of functions, to be phased in through 2020. The goal is to increase business flexibility and operational efficiency, improve service delivery to both internal and external clients, and reduce risks for this segment of the Bank's operations.

Looking forward

- The Bank will continue in the years ahead to wind down the Government of Canada's retail debt program. More bond owners will be made aware of their matured bond series and the importance of timely redemption.
- The Bank will negotiate a new contract for the back-office operations of the CSB program, focusing on flexible, adaptable and scalable program delivery in the years ahead, as well as cost-efficiency.
- The new Unclaimed Balances Management System will be phased in through 2018.
- The AMI will move into its next phase. Beginning in 2019, the Bank will make the new systems available to its counterparties and introduce automated processes in market operations.
- The Bank will continue to enhance the internal credit risk assessment framework by reviewing and improving internal rating methodologies. In 2018, staff will do a full structural review of the methodology for rating multilateral development banks to ensure that it remains at the leading edge of global best practices.

More information

- The Government of Canada Debt Management Strategy
- 2018–19 Debt Management Strategy Consultations
- Muller, P. and J. Bourque. 2017. "Methodology for Assigning Credit Ratings to Sovereigns." Bank of Canada Staff Discussion Paper No. 2017-7.
- Chen, D. X., P. Muller and H. Wagué. 2017. "Multilateral Development Bank Credit Rating Methodology: Overcoming the Challenges in Assessing Relative Credit Risk in Highly Rated Institutions Based on Public Data." Bank of Canada Staff Discussion Paper No. 2017-6.
- Canada Savings Bonds website

Inuit Elder Manitok Thompson performs the closing prayers at the ceremony where the Canada 150 commemorative bank note was unveiled on April 7, 2017.

CURRENCY

Currency in 2017

The Bank continues to provide Canadians with access to secure bank notes while keeping an eye on the transition to digital forms of currency.

At year-end, approximately 2.4 billion Canadian bank notes were in circulation. Polymer notes represented about 86 per cent of the total, with the older paper bank notes now relatively rare.

The *Polymer* series continued to perform well, lasting a minimum of 3.5 times longer than paper. The increased durability of polymer, together with its recyclability, results in more-economical and environmentally friendly bank notes.

New security features make polymer notes increasingly difficult to counterfeit, which is reflected in Canada's low counterfeiting rate. At the end of 2017, the counterfeiting rate was 11 parts per million, consistent with levels experienced in the past two years.

The Bank continued to pursue its counterfeit-deterrence activities with the retail community, as well as through ongoing collaboration with the Royal Canadian Mounted Police (RCMP) and Public Safety Canada under the National Counterfeit Enforcement Strategy.

On June 1, 2017, the Bank of Canada issued the $10 commemorative bank note celebrating the 150th anniversary of Confederation. Governor Stephen S. Poloz and Parliamentary Secretary to the Minister of Finance Ginette Petitpas Taylor were among the first to spend a commemorative note at a downtown Ottawa store.

The Bank of Canada's role

The Bank of Canada is responsible for providing Canadians with bank notes they can use with confidence. The Bank oversees the complete life cycle of a bank note, including design, development, production, distribution, removal and destruction. The goal is to ensure that bank notes in circulation continue to meet the needs of Canadians by being secure against counterfeiting, meeting a high standard of quality and being available in sufficient supply.

The Bank undertakes a broad spectrum of research to inform the strategic direction for its Currency function. Research topics include bank note security and design, the quality and performance of notes in circulation, the use of cash, and the future of bank notes. The Bank also studies the oversight, regulation and issuance of retail electronic payment methods.

Regular consultations with stakeholders in law enforcement, retail and banking, and the public at large provide valuable information on topics such as how cash is being used, the visual content of future bank notes, and the use and cost of alternative payment systems.

To deter counterfeiting of Canadian currency, the Bank collaborates with law enforcement agencies and the judiciary and conducts educational activities to increase the routine verification of bank notes by retailers and the public.

The Bank participates in international working groups and collaborates with research institutes and other central banks to pool knowledge, share opinions and resources, exchange best practices and contribute research in currency-related fields.

Bank staff members Richard Wall, Managing Director of Currency, and Suzette Argo visited Cape Dorset, Nunavut, to exchange C150 bank notes. The work of Cape Dorset artist Kenojuak Ashevak (1927–2013), "Owl's Bouquet," is featured on the note. Credit: Claire Foussard, Dorset Fine Arts.

Achievements

The Bank released a commemorative $10 bank note to mark the 150th anniversary of Confederation and continued with its preparations for future polymer bank notes.

Work continued on the design and development of the next regularly circulating $10 bank note, which will be the first to feature a Canadian woman. Viola Desmond, a defender of social justice, was chosen for the honour, following an extensive consultation process with Canadians. In 2016, an independent advisory council of distinguished Canadians developed a short list of five iconic Canadian women who, together, illustrate the diverse and important contributions women have made in shaping Canada's history. The Minister of Finance made the final selection.

The Bank advanced its bank note research efforts in 2017, including specific work on e-payment technologies, leading-edge bank note security features and cross-border currencies. The Bank began working with the MIT Media Lab on a concept for a central bank digital currency.

Results of the Cost of Payments Study were released in early 2017, providing insight on the cost of cash and other payment methods in Canada.

The Bank is part of a research consortium that includes the National Research Council of Canada and other partners in the public and private sectors. A two-year project has been under way to develop and test security features for future bank notes.

Currency operations continued to supply Canadians with secure, high-quality bank notes through rigorous supply-chain management and quality-assurance practices, as well as ongoing collaboration with the Bank's financial institution partners.

Through the Currency Information Management Strategy, the Bank has developed the capability to collect and analyze data from many sources to enhance the quality of bank notes in circulation and identify trends in the use of cash and the movement of bank notes through the distribution system.

The strategy has resulted in several improvements. The exchange of data with supply-chain partners and key stakeholders was improved and automated;

Commemorating Canada's 150th

The commemorative bank note was designed with a number of innovative security features, such as a multi-coloured metallic rendering of "Owl's Bouquet," a print by Inuit artist Kenojuak Ashevak.

The Bank of Canada marked the 150th anniversary of Confederation with the release of a commemorative $10 bank note. Governor Stephen S. Poloz and Parliamentary Secretary to the Minister of Finance Ginette Petitpas Taylor officially released the note on June 1, 2017, to ensure availability in time for Canada Day.

This note represents the first time that four individuals have been portrayed on the front of a Canadian bank note: Agnes Macphail—the first Canadian woman Member of Parliament; James Gladstone, or Akay-na-muka (his Blackfoot name)—the first senator of First Nations origin; and fathers of Confederation Sir John A. Macdonald and Sir George-Étienne Cartier.

Canada's natural beauty and unique landscapes are showcased on the reverse of the note. Images of Canada's diverse regions depict the Lions/Twin Sisters (Western Canada), a wheat field (Prairie provinces), the Canadian Shield (Central Canada), Cape Bonavista (Eastern Canada) and the northern lights (Northern Canada).

The note also has new security features, such as a colour-shifting illustration of the Memorial Chamber arch on Parliament Hill and three-dimensional maple leaves. The Bank collaborated with its bank note printer, the Canadian Bank Note Company, on the integration of substrate, foil and print design, resulting in a beautiful, secure commemorative note that was produced in time for the anniversary.

After introducing new *Bank Note Design Principles* in 2014, the Bank invested significant effort in researching and developing the note's visual content. Data from nationally representative surveys and public consultations were used to generate a wide variety of options for themes and images. The Bank also sought advice from dozens of subject matter experts to translate those themes and images into a meaningful design.

The note was well received by the public and media throughout the year. Results of a national survey indicated that Canadians felt positively about the Canada 150 bank note, agreeing that it contributed to marking the 150th anniversary of Confederation (over 80 per cent), reflected Canada (over 90 per cent) and was well designed (over 85 per cent).

Close collaboration with financial institutions ensured that the notes were broadly available across the country. Just over 40 million notes were produced, making one available for each Canadian. The notes were distributed until the end of 2017 and will circulate for years to come as a memento of the country's 150th birthday.

infrastructure and technology were upgraded to support staff analysis of bank note trends; and pilot studies were conducted to assess the effectiveness of note flow tracking. The system also supports serial number searches for active investigations by law enforcement agencies.

The Bank moved forward with plans to modernize its cash-processing centres to ensure that they remain cutting-edge and adaptable to a changing cash-distribution environment. This will involve enhancing systems and processes related to information technology, control, security and auditing, and cash-handling and packaging, as well as employee training and occupational health and safety.

The Bank led discussions on the bank note distribution system, in collaboration with major financial institutions, to ensure the system's ongoing efficiency and effectiveness.

Regional offices in Vancouver, Calgary, Toronto, Montréal and Halifax have a strong presence across Canada, providing support for the public consultations on bank note design and engaging Canadians in the release of new bank notes. Regional offices also worked with law enforcement partners, financial institutions and the retail community to educate Canadians about bank note authentication and counterfeit deterrence.

Looking forward

- The Bank will complete the design, printing and other preparations to circulate the new $10 note featuring Viola Desmond toward the end of the year.
- The Bank will continue to explore the potential for a cashless society. Staff will research, analyze and monitor the effect of new payment systems and technologies on the use of bank notes, and will continue research on digital currencies.
- Large-scale industrial tests will be conducted on new bank note technologies that may be applied to future bank notes.
- Initiatives to provide the Bank with integrated data and analytics from all phases of the bank note life cycle will proceed, making information and analytical data more accessible.
- The Bank will implement its External Stakeholder Engagement Strategy to ensure a consistent, comprehensive and coordinated approach to outreach and engagement with Currency stakeholders.

More information

- Information on the commemorative bank note
- Webcast of the announcement that Viola Desmond will be the subject of the new $10 bank note

The Bank's revitalized plaza became a popular gathering spot for citizens in the summer of 2017. The City of Ottawa recognized the Bank's contribution to the city's public places and civic spaces with a 2017 Ottawa Urban Design Award.

MANAGING THE BANK OF CANADA

Managing the Bank in 2017

The highlight of 2017 was the Bank's move back to the renewed head office building on Wellington Street, following completion of the extensive three-year renovation project.

Programs were introduced to encourage employees to use the updated technology and workspaces effectively and to foster dialogue, creativity and experimentation.

For the eighth consecutive year, the Bank was named one of Canada's Top 100 employers and one of the top 25 employers in the National Capital Region.

Once again, Bank employees participated in the Bank's annual workplace charitable campaign, making donations to both the United Way and Health Partners, a group of national health charities. A record $281,872 was raised through direct contributions and internal fundraising events.

Composition of Bank staff, by role

Approximate, for 2017

* Total number includes approximately 1,500 employees in core operations and 200 working on projects (temporary).

About managing the Bank of Canada

A strong management and operating framework provides the foundation for the Bank of Canada's core functions and activities.

Efficient, cost-effective and innovative operations promote employee engagement and productivity and contribute to the achievement of the business objectives established in the Bank's medium-term plan (MTP).

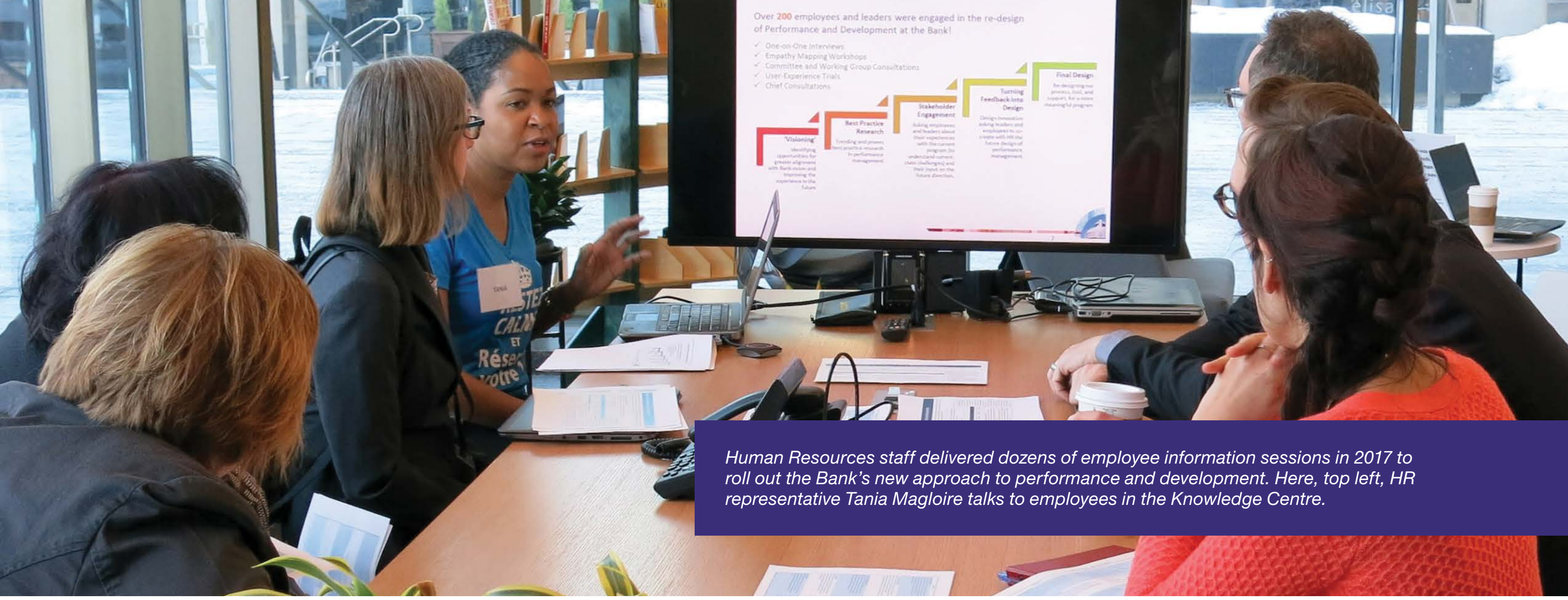
In addition to the economists and financial system specialists who work in the Bank's core functions, leaders and staff in corporate administration departments focus on the management of

- people—attracting, engaging and retaining highly qualified employees;
- corporate processes—executive decision making and governance, compliance, risk management, legal systems, corporate policy and communications;
- assets—maintaining buildings, securing people and physical assets, and procuring services;
- finances—budgeting, accounting, control and audit; and
- information—technology, data and security.

Principles of corporate administration

To be

- a value-added business partner, with relationships and knowledge that business lines need to solve problems
- operationally excellent, with efficient and integrated processes and systems, superior analytics, and shared planning and budgeting
- easy to do business with, delivering efficient and responsive services and advice
- effective corporate stewards, able to provide the advice, guidance and support needed for wise decision making and stewardship of the Bank's finances, information and employees



Human Resources staff delivered dozens of employee information sessions in 2017 to roll out the Bank's new approach to performance and development. Here, top left, HR representative Tania Magloire talks to employees in the Knowledge Centre.

Achievements

Human resources

Considerable effort is made each year to provide employees with a superior work environment, distinctive development opportunities and competitive total compensation.

In 2017, the Bank remained focused on recruiting and retaining the talent it needs, with specific programs focused on targeted employee groups. New approaches to branding and outreach were used for cyber security roles, and programs were developed to attract and retain economists and financial sector specialists.

The Bank is committed to encouraging women to pursue graduate studies in economics and finance to achieve gender balance in these roles at central banks. With the Senior Deputy Governor's executive sponsorship, the Bank launched the Master's Scholarship Award for Women in Economics and Finance in 2017. The program provides students with a financial award to offset tuition costs and an offer of employment upon graduation.

A three-year program to renew the Bank's human resources (HR) programs, processes and tools, known as HR Modernization, marked its second year in 2017. A new approach to performance and development was introduced early in the year, followed by key elements to support implementation, including

- a revised set of core competencies to make it clear what behaviours ensure success at the Bank, and new performance ratings that embed these expectations;
- updates to the compensation framework that reinforce and reflect the new approach;
- clear expectations and training for leaders on providing coaching and feedback to their team members; and
- changes to the year-end performance and salary review process and tools to simplify them and ensure they support the new approach.

The Bank upgraded and streamlined the software employees use to perform day-to-day tasks, such as requesting leave and registering for training. As well, HR clients and cross-functional teams provided input that led to improvements in the processes and paperwork related to retirement and childcare leave.

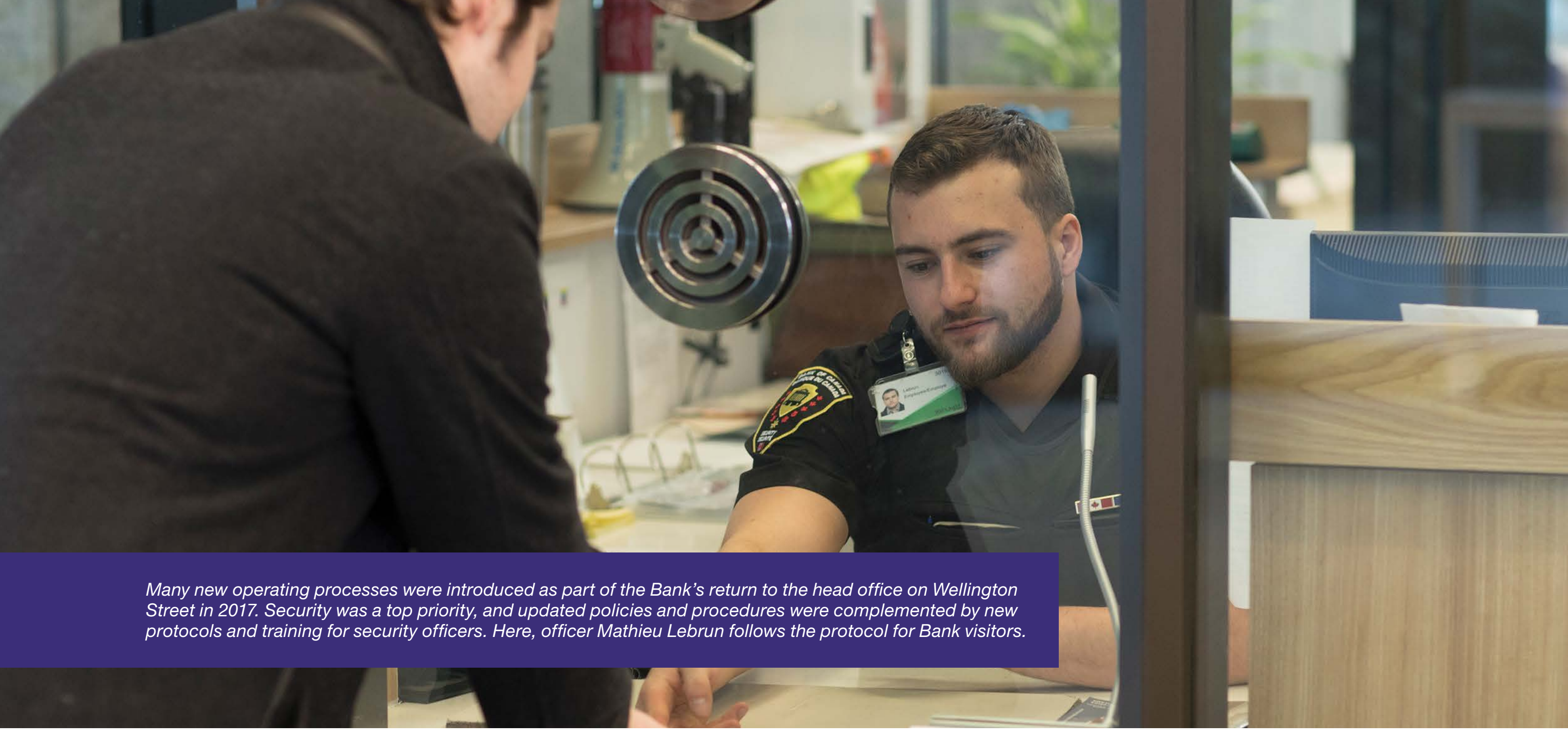
In 2017 the Bank conducted a work environment check-up survey to collect employee opinions on working at the Bank. There was strong support for the process, with 88 per cent of Bank employees responding. Results confirmed that employees are very engaged and satisfied overall, with 91 per cent saying they would recommend the Bank as a workplace to their friends.

The survey results are used by management to identify areas for continuous improvement. Throughout the autumn, the Senior Deputy Governor hosted a series of discussions with employees on various themes. Departments have started to develop action plans to respond to employee feedback.

The Bank has a comprehensive employee communications program, using a variety of tools and events throughout the year to keep staff informed and engaged in their work.

Aside from being integral to the success of HR programs and Bank initiatives, effective employee communications is considered an important factor in the Bank's selection as one of Canada's Top 100 employers.

In 2017, employee communications played a key role in the seamless transition of staff and operations to the renewed head office. As well, the Bank moved forward with plans to emphasize digital channels to communicate with employees.



Many new operating processes were introduced as part of the Bank's return to the head office on Wellington Street in 2017. Security was a top priority, and updated policies and procedures were complemented by new protocols and training for security officers. Here, officer Mathieu Lebrun follows the protocol for Bank visitors.

Operating infrastructure

The Bank's operating infrastructure is adapted and improved each year to keep up with the rapid pace of change in technology and constantly evolving business needs.

Employees were relocated by the end of the first quarter to the Wellington Street head office.

Many new operating processes were introduced as part of the return to Wellington Street. Security was a top priority, and updated policies and procedures were complemented by new protocols and training for security officers. The Bank also activated contract arrangements for building maintenance and food services to tap into specialized external expertise.

Chief Operating Officer Filipe Dinis spoke to public sector financial managers attending a conference in Gatineau, Quebec, about how the Bank is building a culture of innovation. The event was organized by the Financial Management Institute of Canada.

Employees settled into their new workspaces and started using the many shared spaces and facilities designed to improve efficiency and promote collaboration and innovation at the Bank.

In particular, staff made extensive use of the Bank's innovation lab—known as the IdeaSpace. This facility was specially designed and equipped to facilitate cross-departmental collaboration, new ways of working and creative solutions to complex problems.

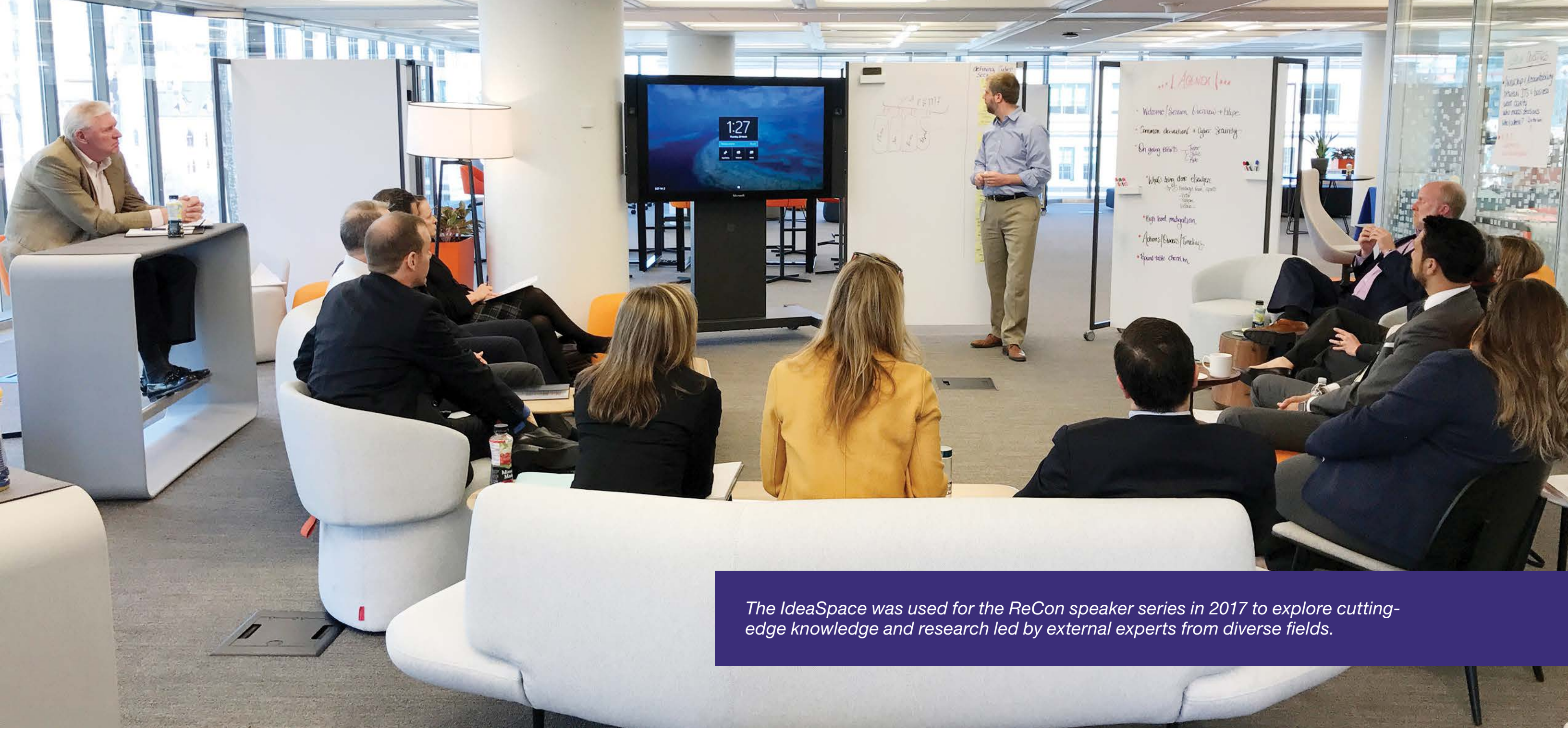
A total of 411 sessions were held in the IdeaSpace throughout the year, with topics ranging from project planning and strategizing to process improvement workshops and policy presentations. One example was the ReCon speaker series, which explored cutting-edge knowledge and research led by external experts from diverse fields—beyond economics and finance.

The Bank also implemented new tools and processes to promote efficiency in the workplace, including lean and agile methodologies and new software to support the management of projects, change activities and client relationships.

Resilience

A major priority for the Bank is to ensure that the key systems and processes that support the country's market and banking operations continue to operate without interruption.

As part of a multi-year information technology (IT) strategy, the Bank took further steps in 2017 to improve the resilience of its IT infrastructure, applying best practices from other central banks and related institutions.



The IdeaSpace was used for the ReCon speaker series in 2017 to explore cutting-edge knowledge and research led by external experts from diverse fields.

The Business Recovery Enhancement (BRE) Program, for example, aims to improve the resilience of the Bank's data centres, network and technology infrastructures, and business systems. Objectives include ensuring recovery of Bank business systems within acceptable timelines, safeguarding key data against corruption and loss, and enhancing overall operational processes.

BRE was focused in 2017 on measures to safeguard the integrity of Bank systems. This involved establishing a third data centre and associated services outside of the National Capital Region (NCR). Other measures included mapping business processes and technology linkages to enhance risk management and improve process rigour and standardization.

To complement BRE measures to promote system resilience, the Bank launched a new project in 2017 to increase its resilience related to its employees. A second operations site outside the NCR is being established so that critical banking and market operations will continue uninterrupted should staff in Ottawa be unavailable for any reason. It is slated to be fully functional by late 2021.

The Bank also made progress in 2017 on converting specific components of its IT infrastructure and solutions to cloud-based platforms. A cloud adoption strategy—featuring the Cloud Centre of Excellence—ensures a methodical approach to all initiatives currently or potentially using cloud services. The strategy contributes to the Bank's resilience by ensuring some IT systems are kept up-to-date by vendors, as appropriate, to meet the Bank's needs.

The Bank also made significant improvements in 2017 to the IT tools used for research related to monetary policy, financial systems and other fields. High-performance computing capabilities were upgraded to allow staff to analyze larger quantities of data and create more sophisticated economic and financial models.

Cyber security

The Bank continued to assess and respond to the vulnerability of Canada's economy to cyber threats in 2017.

Complex IT platforms have allowed the financial sector to deliver services more efficiently. Financial market infrastructures (FMIs) act as hubs for financial transactions through which banks and other financial institutions connect directly or indirectly to exchange funds, securities and other financial products.

However, this connectivity means that a successful cyber attack against a single institution or a key service provider could spread relatively quickly throughout the financial system. Such an attack could potentially cause significant disruption to Canada's economy and financial stability.

For these reasons, the Bank is working with industry to reinforce the resilience of core payment systems and to ensure that key participants can recover quickly in the event of a cyber attack. The goal is to promote resilience, consistency and coordination among specific institutions as well as the broader wholesale payments system. FMIs designated for oversight by the Bank are required to meet domestic and international standards for assessing and addressing operational risks, including cyber security.

Recognizing the key role of the public sector in preparing for cyber threats, the Bank works with other federal departments and agencies to ensure a coordinated approach.

Meanwhile, the Bank is augmenting its own cyber security program to prevent, detect and respond to threats that may compromise the confidentiality, integrity and availability of its digital information assets. The focus is on protecting systems and data, enhancing processes and tools, and educating staff about their role and responsibilities in safeguarding corporate assets.

Looking forward

- The HR Modernization program will be completed in 2018. Improved recruitment tools will be introduced to complement the many improved HR processes implemented in 2017.
- Phase 2 of BRE—the creation of a new data centre—will be completed in 2018. This will be followed by the transition of business systems to the new architecture that will help manage operational risks in years ahead.
- The Bank will continue to build its alternative operations centre, with fit-up of the leased office space to proceed in 2018. The site is scheduled for completion in early 2019.
- The cyber security program will continue to mature and adjust to the evolving cyber threat landscape.
- A renewed sabbatical program and a new research award will be launched in 2018 to help attract and retain economists and financial sector specialists.
- As part of its commitment to diversity—a component of its culture of innovation—the Bank will sponsor a diversity and inclusion conference in the first quarter of 2018, partnering with the Office of the Superintendent of Financial Institutions.

COMMUNICATIONS AND OUTREACH

Achievements in 2017

The Bank of Canada is committed to open and transparent communication with Canadians about its policies, actions and analysis.

Households, businesses and investors can have more confidence in the value of their money and the safety of their financial system when they better understand the Bank's role.

In the context of a shifting media landscape, increased digitalization of communications and heightened public expectations for transparency from public institutions, the Bank is developing new and innovative ways to engage with various stakeholder groups—the media, financial market participants and the public at large.

The goal is to communicate with Canadians clearly and effectively, while providing a comprehensive account of the Bank's activities. To achieve this, the Bank integrates communications considerations into its policy work and operations.

Highlights of 2017 included

- a "digital first" strategy for publications and research, with communications products moving from print-based to online publishing;
- an innovative monetary policy conference that included broad stakeholder engagement and online public input on Canada's inflation target;
- a broader communications strategy to educate Canadians on the work of the Bank through the Bank of Canada Museum; and
- the Bank's first press conference in its new media facility following the release of the autumn *Financial System Review*.

The Bank of Canada was celebrated for its clear communication with an accolade from *Central Banking* for "Transparency" in 2017. The magazine cited the Bank's efforts to stay "at the leading edge of transparency" by embedding communications in the policy process, applying fresh thinking to shared content and adding a new top-level communications role to its leadership team.

To uphold public confidence in the transparency and integrity of its work on behalf of Canadians, the Bank adheres to a set of principles for Governing Council's external communications.[5]

Engaging Canadians on the inflation-target renewal

The Bank's top communications priority is to help Canadians understand the relationship between its monetary policy decisions and inflation.

5 See the *Principles for External Communication by Members of Governing Council*.

Monetary policy transparency and communication was one of the topics discussed at the Bank's 2017 inflation-targeting workshop. Panel members included Kevin Carmichael, Centre for International Governance Innovation; Pierre Siklos, Wilfrid Laurier University; and Michael Ehrmann, European Central Bank.

To kick off its five-year research agenda leading up to the next renewal of the inflation-targeting agreement with the Government of Canada in 2021, the Bank invited more than 50 external economists, academics, journalists and policy-makers to participate in a full-day workshop.

The purpose of the workshop, led by Senior Deputy Governor Carolyn A. Wilkins, was to engage with external experts and encourage diverse views on key issues around the monetary policy framework. The issues raised will help shape the Bank's broader research agenda leading up to the 2021 renewal.

For the first time, the Bank invited media to attend and conducted a live webcast of the workshop. The public were also invited to engage directly with workshop panellists by sending in their questions and comments via Twitter.

Website and social media

The Bank provided an enhanced digital experience for online visitors in 2017.

A sophisticated interactive website helped Canadians explore the visual elements of the $10 bank note issued to commemorate Canada's 150th anniversary. This was the Bank's first use of "parallax" web design—a scrolling feature, complete with 3-D effects, that enhances the browsing experience.

The site became extremely popular soon after its launch in early June and by year-end had attracted some 1.8 million page views. Viewers also chose to make more than 250,000 social network referrals, enabling the Bank to achieve widespread public awareness.

The strong interest—extending around the world—was partially due to wide sharing of an "Easter egg" playfully hidden in the site's source code, which generated a surprise digital version of Canada's national anthem.

The Bank introduced several new website features in 2017 to make complex financial and economic information more accessible and improve the experience of users working with economic data:

- New digital products were created to complement the *Financial System Review*, including plain-language video primers on how the Bank assesses vulnerabilities and risks in the Canadian financial system.
- New lookup tools were created to allow users to download and interact with foreign exchange rate data for 26 currencies.
- Interactive charts were created for frequently used data such as inflation indicators and the Bank's commodity price index. The Bank's *Weekly Financial Statistics* package was also retired and replaced with real-time digital dashboards.
- The first fully digital versions of the Bank's *Business Outlook Survey* and *Senior Loan Officer Survey* were published, doubling their readership.
- Hundreds of new data series, including supporting data and model codes, were made available, together with applications to allow external researchers to develop their own tools to work with Bank data.
- Selected staff analytical notes were also published in digital form.

The Bank also held its first Twitter Q&A session during its annual student recruitment campaign to answer questions from students seeking employment with the Bank.

Social media: 127,000 Twitter followers;
20,887 LinkedIn followers;
247,300 video views;
3,150 YouTube subscribers

Website: 60.3 million page views;
2.6 million average monthly visits to the Bank's website;
12.7 million annual visits by unique users

Media relations: 11 press conferences;
20 media interviews; 33 press releases;
229 responses to media queries

Speeches: 21 public speeches
by Governing Council

Public information: 13,633 phone calls
and 10,550 emails from the public
seeking information

Governor Stephen S. Poloz welcomed the Governor General, His Excellency the Right Honourable David Johnston, to view the renewed Bank of Canada Head Office in 2017.

Bank of Canada Museum

The Bank completed the assembly, installation and testing of exhibits in the new Bank of Canada Museum in time for its official opening on July 1, 2017, which attracted nearly 3,000 visitors.

Historically, the museum served as a showcase for Canada's National Currency Collection. Head office renewal created an opportunity for the Bank to rebuild the facility and expand its mandate at the same time. The museum's broader purpose is now to educate Canadians on the Bank's core functions.

Visitors learn about the Bank's role in the economy with the help of their own digital avatar, who leads them through interactive exhibits and games. The museum's largest interactive display is a digital touch wall measuring 10 square metres and featuring 64 interconnected LED panels that allow users to learn about and interact with some 400 artifacts.

Artifacts from the currency collection remain an essential part of the reimagined museum. They were moved back to the Bank in 2017 after three years in storage, and some 1,400 artifacts were installed in the display space. The Bank continues to make acquisitions for the collection; in 2017 it acquired a group of rare tokens from fur trading posts in Western Canada and several medieval pieces.

The Bank of Canada Museum opened officially on July 1, 2017, attracting nearly 3,000 visitors.

The number of visits to the museum in 2017 exceeded expectations. In just six months of operation, it attracted 42,755 visitors, about 6,000 more than the attendance number for the full year when the museum was last open in 2012.

Four touring exhibitions continued in 2017. As well, the Bank contributed 16 artifacts from its collection to an upcoming 2018 exhibition at the Canadian Museum of History on the ill-fated Sir John Franklin expedition in search of the Northwest Passage.

Stakeholder relations

Engaging in two-way communications with the public, businesses, industry associations, academia, labour and other groups is invaluable to the formulation of monetary policy and to the Bank's accountability.

Discussions with external groups help Governing Council members better understand prevailing dynamics in the economy and the financial system, as well as structural issues and economic research relevant to the work of the Bank.

The Bank conducted an ambitious outreach program in 2017. Members of Governing Council travelled across the country and internationally, consulting with local business leaders, financial and economic experts, and other stakeholders. Events hosted by Governing Council members included

- 83 public and private speaking engagements;
- 30 media activities (interviews, round tables, editorial boards, press conferences); and
- 24 consultations, round tables and dinners.

The Bank participated in the City of Ottawa's annual "Doors Open" event on June 4, welcoming some 800 visitors. Groups were given a guided tour of the Bank's new spaces, including the renowned indoor atrium designed in the 1970s by Canadian architect Arthur Erickson.

The Bank's regional offices in Vancouver, Calgary, Toronto, Montréal, Halifax and New York play a key role in these outreach activities, thanks to their close ties with industry, government, educational institutions and other organizations. They lead and coordinate the *Business Outlook Survey*, the *Senior Loan Officer Survey* and other research activities, providing an important perspective on regional and national economic issues.

Regional offices also contribute to the Bank's understanding of financial markets. Representatives in the Toronto and Montréal offices consult regularly with financial market participants across the country, and the New York office serves as a liaison with the financial community in the United States.

In Ottawa, the Bank hosted more events and meetings for external stakeholders in 2017 to mark both the reopening of its renovated head office and Canada's 150th anniversary.

Ottawa residents and other visitors were given tours and presentations on how the Bank's new facilities were designed to promote innovation, collaboration and efficiency in the workplace. The Bank also hosted a record number of large conferences and meetings in its newly renovated facility, making use of the new conference centre and auditorium.

The Bank's revitalized plaza also became a popular gathering spot for citizens in the summer of 2017. The City of Ottawa recognized the Bank's contribution to the city's public places and civic spaces with an Ottawa Urban Design Award.

Academic outreach

High-quality research underpins all the Bank's work and played an important role in informing policy analysis in 2017. Bank research priorities are outlined in the Bank's Medium-Term Research Plan, 2016–2018.

In 2017, Bank research was largely focused on better understanding the post-crisis economy and its implications for monetary policy, as well as the nexus between price stability and financial stability. Other main areas of interest included identifying financial system vulnerabilities and the demand for cash, and implications of new payment systems and technologies.

As part of its commitment to share more research with the public, the Bank highlights its current research through a monthly newsletter and website link. A total of 61 staff working papers, 17 staff discussion papers, 26 staff analytical notes and 5 technical reports were published in 2017. Additionally, 55 papers by bank staff were either published or accepted in academic peer-reviewed journals.

The Bank engages with academic and other research partners to foster vigorous discussion and information exchange on topics of importance. Three new participants joined the Bank's **Visiting Scholar** program in 2017, bringing the total number of scholars to eight. Several joint projects are under way.

The Bank hosted the 2017 meeting of the Central Bank Research Association (CEBRA), which brings together policy-relevant research on topics of interest to central banks and international financial institutions. Here, Bank staff member Christian Friedrich presents research on the impact of US monetary policy on international capital flows.

The Bank's annual communications activities

Left: Deputy Governor Tim Lane delivered a speech in March 2017 on the implications of climate change—and actions to address it—for Canada's economy and financial system. Here he joins moderator Roger Beauchemin to take questions from the audience at the Finance and Sustainability Initiative in Montréal, Quebec. Credit: Wonder Photography

Right: Deputy Governor Sylvain Leduc delivered a speech at the Sherbrooke, Quebec, Chamber of Commerce in October, and took the opportunity to meet with local entrepreneurs. Luc Dionne (right), president of Tekna Plasma Systems, gave him a tour of the plant where his team produces advanced material powders.

Extensive outreach and stakeholder engagement activities ensure that the views of individuals, businesses and organizations in Canada are understood and considered by the Bank in the course of conducting its policy actions.

Eight times a year, the Bank announces its decision on the key policy interest rate, complemented quarterly by the release of its *Monetary Policy Report* (MPR).

The Bank also publishes its *Financial System Review* (FSR) twice a year to help Canadians understand risks to the stability of Canada's financial system.

In addition to these regular publications and related tools, members of Governing Council communicate important Bank messages through speeches to Canadians and international audiences, many of which are webcast.

The release of major publications such as the MPR and the FSR is followed by a news conference and media interviews with the Governor and the Senior Deputy Governor (SDG). Members of the media attend lock-ups at the Bank's head office to obtain embargoed copies of speeches and publications.

The Governor and the SDG appear semi-annually before the House of Commons Standing Committee on Finance and the Senate Committee on Banking, Trade and Commerce, as they did in the spring and autumn of 2017.

Members of Governing Council also host regular consultations and round-table meetings with a wide range of private and public sector leaders throughout the year.

Governor Stephen S. Poloz congratulates the winning team from McGill University at the 2017 Governor's Challenge, the Bank's monetary policy competition for university students.

Visiting Scholars in 2017:

- Victor Aguirregabiria, University of Toronto
- Andrew Levin, Dartmouth College
- Yuriy Gorodnichenko, University of California, Berkeley
- Itay Goldstein, Wharton School of the University of Pennsylvania
- Charles M. Kahn, Professor Emeritus at the University of Illinois
- Dean Corbae, Wisconsin School of Business
- Rodney Garratt, University of California, Santa Barbara
- Stephen Williamson, Western University

The **Fellowship Program** fosters excellence in research at Canadian universities and promotes research partnerships with external experts in areas important to the Bank's mandate. Through this program, two types of research awards are available for academics working at Canadian universities. The **Fellowship Award** recognizes excellence among well-established researchers in Canada. The 2017 Fellowship Award recipient was Francisco Ruge-Murcia of McGill University.

The **Governor's Award**, given to exceptional assistant and associate professors doing exemplary work in fields related to central banking, was presented to Mikhail Simutin of the University of Toronto.

In early 2017, the Governor hosted the final rounds of the second Governor's Challenge—an annual university competition designed to promote understanding of the role of monetary policy in Canada's economy. McGill University was the winner.

The finalists for the 2017–18 competition were selected in November; more than 100 students from 25 Canadian universities participated by video conference. The final round was scheduled for February 2018.

More information

- Celebrating Canada's 150th
- Bank of Canada Fellowship Program
- Visiting Scholar program
- Governor's Challenge
- Bank of Canada Museum
- Head Office Renewal
- General Inquiries
  1-800-303-1282 or
  info@bankofcanada.ca
  www.bankofcanada.ca

Stephen S. Poloz, Governor of the Bank of Canada, speaks during an event at the Chamber of Commerce of Canada (CanCham) in Mexico City, Mexico, on Thursday, May 4, 2017. Credit: Bloomberg L.P.

GLOBAL ENGAGEMENT

Global engagement in 2017

The global economy moved into a synchronous expansion in 2017 after years of disappointing growth in the wake of the global financial crisis.

As the global outlook improved, the international community's attention shifted increasingly toward the sustainability and inclusiveness of global growth. Under the German presidency, the G20 focused on steps to enhance economic resilience, continue progress on structural reforms in member economies and emphasize inclusive growth.

At 2017 meetings of the G20 and the International Monetary Fund (IMF), member countries acknowledged the need to do more to ensure that gains from globalization and technological change were spread more equitably within and across countries. Canada is a strong supporter of the inclusive growth agenda and will pursue this theme during its G7 presidency in 2018.

These and other topics were discussed at meetings of the G20 and the IMF in 2017. Canada's representatives supported the thrust of the G20 leaders' commitment to use the full range of policy tools—monetary, fiscal and structural—to achieve strong, sustainable, balanced and inclusive growth, while enhancing economic and financial resilience.

Bank representatives were proactive in building and reinforcing relationships, continuing a dialogue with officials from other countries during and after international financial meetings.

Supporting Canada's G7 leadership

In 2017 the Government of Canada was preparing to assume the presidency of the G7 from January 1 to December 31, 2018.

The G7 is an informal grouping of seven of the world's advanced economies: Canada, France, Germany, Italy, Japan, the United Kingdom and the United States. Leaders come together each year to discuss and build consensus on some of today's most challenging global issues. The G7 Summit will be held June 8 and 9, 2018, in La Malbaie, Quebec, located in the Charlevoix region.

In 2017, the Bank and the Department of Finance Canada collaborated on the preparatory work for the G7 Finance Track, which will feed into the Leaders' Summit. The Leaders' Summit will focus primarily on the theme "investing in growth that works for everyone."

The Bank and Finance Canada will co-host a series of G7 Finance Track events in 2018. One event is the G7 Symposium on Innovation and Inclusive Growth, which will take place in early February 2018. From May 31 to June 2, 2018, the Bank and Finance Canada will co-host the G7 Finance Ministers and Central Bank Governors' meeting.

Finance Minister Bill Morneau and Governor Stephen S. Poloz joined finance ministers and central bank governors of the seven participating countries at the G7 Finance Meeting in Italy in May 2017. Canada will host the next meeting in 2018.

Cyber security

Given the worldwide increase in the frequency, severity and sophistication of cyber attacks, the Bank sees cyber security as an issue for the global economy as much as it is for domestic economic systems and institutions. Cyber attacks can originate from outside Canada and be transmitted across the global network that financial institutions rely on to operate their businesses.

The Bank continues to work with industry, international bodies, and federal and provincial authorities to share information and improve cyber security policies.

The Government of Canada is pursuing greater international co-operation on cyber security to raise awareness and work toward common initiatives to improve cyber resilience. Related issues will be examined during Canada's G7 presidency.

Canada contributed to the development of the *G7 Fundamental Elements of Cybersecurity for the Financial Sector*. This document serves to guide public and private financial sector entities in the design and implementation of cyber security strategies and operating frameworks.

This work complements Canada's domestic efforts to promote a safe and secure global financial system.

Building stronger financial systems

In the face of rapid changes to global financial networks—enabled by new technologies—central banks and related agencies have been working together to improve international financial systems and regulatory frameworks.

A key objective in 2017 was dynamic implementation of new standards, adjusting measures as needed to avoid inconsistences or material unintended consequences. The Bank actively contributed to a framework developed by the Financial Stability Board (FSB) for the evaluation of post-crisis reforms. Given Canada's historic commitment to strong financial standards, the Bank supports the full and consistent implementation of Basel III rules, removal of barriers to cross-border resolution, and the promotion of fair and transparent financial markets.

Senior Deputy Governor Carolyn A. Wilkins attended the International Monetary Fund Annual Meetings in October in Washington, DC. She took part in the panel discussion "Systemic Risk and Macroprudential Stress Testing." Credit: ©IMF

Basel III finalization

In the wake of the global financial crisis, the G20, the FSB and the Basel Committee on Banking Supervision launched an overhaul of existing global banking regulations. The objective of these regulations is to promote banking systems that contribute to economic recovery and growth on a sustainable basis, while fostering a level playing field for internationally active banks.

The Basel III framework includes measures to address some of the vulnerabilities that contributed to the global financial crisis, such as ensuring banks can withstand losses and runs on funding.

Basel III also has more stringent measures to ensure that large banks with significant connections to the rest of the financial system—both domestic and global systemically important banks—are especially well capitalized and have adequate loss-absorbing capacity in resolution to avoid being "too big to fail."

These are complemented by reform initiatives for financial institutions outside the banking sector, such as strategies to mitigate risks related to shadow banking and increasing transparency for over-the-counter derivatives transactions.

The reforms are strongly supported in Canada, where a resilient banking sector helped offset the worst consequences of the financial crisis.

While certain elements of Basel III had already been implemented, final agreement on the framework was reached at the end of 2017.

The FSB published its third annual report to the G20 on the implementation and effects of the G20 financial regulatory reforms in July 2017. Globally, adoption of the core Basel III elements has generally been timely to date, and Canada has implemented the core standards on or ahead of schedule.

Foreign exchange (FX) global code

The Bank of Canada contributed to the development of the *FX Global Code*, a set of principles and guidelines to promote the integrity and effective functioning of the wholesale global foreign exchange market. The Bank worked with other central banks to create the Code, in collaboration with industry representatives from FX markets in 16 jurisdictions.

The Code was launched in May 2017 and will be maintained by the Global Foreign Exchange Committee (GFXC). The GFXC has a mandate to promote "a robust, fair, liquid, open, and appropriately transparent FX market."

The Code is voluntary and intended to serve as a supplement to local laws, rules and regulations. Central banks have agreed to apply the code to their own FX activities, and market participants may choose to sign a standardized statement of commitment to signal their adoption of the code.

Consistent with the approach being adopted by central banks in other jurisdictions, the Bank will make signing the Code's statement of commitment a condition of membership of its Canadian Foreign Exchange Committee. Similarly, it will be a condition of being a counterparty in the Bank's day-to-day foreign exchange activities.

The Bank of Canada's international role

The Bank of Canada's work on the international stage helps it achieve its mandate each year.

Sharing information and insights with global counterparts helps the Bank understand the global economy, which is essential to both formulating monetary policy and identifying risks to the financial system. Such engagement also prepares the Bank to address complex and often interrelated global economic, financial and regulatory challenges, as well as a range of common issues pertaining to financial system policies and central bank operations.

The Governor, Senior Deputy Governor, deputy governors and other Bank leaders engage in dialogue on global economic and financial developments through bodies such as

- the G7 and the G20,
- the International Monetary Fund,
- the Financial Stability Board (FSB),
- the Bank for International Settlements (BIS),
- the International Organization of Securities Commissions, and
- the Organisation for Economic Co-operation and Development.

The Governor serves on the BIS Board of Directors, which determines the strategic and policy direction of the BIS and supervises BIS management. He chairs the Board's Audit Committee, examining matters related to internal control systems and financial reporting.

The Bank of Canada supports FSB activities to develop and promote effective regulatory, supervisory and other financial sector policies in the interests of financial stability around the world.

The Senior Deputy Governor is a member of the FSB Plenary and the FSB Standing Committee on Assessment of Vulnerabilities, which monitors and assesses vulnerabilities in the global financial system.

The Bank contributed to the final design of the Basel III international regulatory framework for banks through its participation in the Basel Committee, the Policy Development Group and various other working groups in the areas of sovereign exposures and liquidity regulation.

Bank officials also participate in a variety of international working groups and committees, either to develop specific recommendations for parent committees or to exchange ideas and collaborate with economists and researchers from other countries.

Fintech

Financial technology, also known as fintech, is an area of interest for all central banks because it relates to the issuance of currency, financial stability and monetary policy. Fintech refers to innovation in digital financial services, such as digital currencies and distributed ledger applications.

Fintech took on increasing prominence internationally in 2017. Given the small size of the fintech sector relative to the financial system, emerging fintech innovations do not represent significant risk at present. However, the FSB continues to monitor and discuss potential financial stability implications of fintech developments.

The Bank contributes subject matter expertise and leadership to fintech policy development through various international organizations.[6] Senior Deputy Governor Carolyn A. Wilkins chaired an FSB committee that examined the supervisory and regulatory issues related to financial stability. The committee published a report on its findings in June 2017.

The recommended fintech framework classifies activities by their primary economic functions, rather than technologies. The framework identifies 10 areas that merit attention, with three priorities for international collaboration:

- managing operational risk from third-party service providers,
- mitigating cyber risks, and
- monitoring macrofinancial risks that could emerge as fintech activities increase.

Senior Deputy Governor Wilkins was the only central bank official who took part in the IMF's High Level Advisory Group on Fintech established in March 2017.

Central counterparties

As part of their response to the global financial crisis, leaders of the G20 committed in 2009 to ensuring that over-the-counter derivatives are cleared through central counterparties (CCPs) to promote stable and efficient financial markets. CCPs are corporate entities that assume various forms of risk related to financial market trades.

Recent international efforts have focused on enhancing the resilience, recovery planning and resolvability of CCPs.

Juyeol Lee, Governor of the Bank of Korea, left, met with Stephen S. Poloz, Governor of the Bank of Canada, in 2017 to formalize a standing bilateral liquidity swap arrangement between the Bank of Canada and the Bank of Korea. This brings Canada's bilateral swap agreements to a total of seven. Swap lines give central banks flexibility to provide liquidity in other currencies if short-term funding markets are strained.

A coordinated international workplan to meet the G20 commitment generated two key documents in 2017. The Bank contributed to both the FSB's *Guidance on Central Counterparty Resolution and Resolution Planning* and the *Resilience of Central Counterparties (CCPs): Further Guidance on the PFMI* (*Principles for Financial Market Infrastructures*) by the Committee on Payments and Market Infrastructures and the International Organization of Securities Commissions.

Central bank collaboration

The Bank contributes to innovation and excellence in central banking policy and operations in Canada and abroad through joint activities with other central banks, the Bank for International Settlements (BIS) and other international organizations.

In 2017, the Bank hosted several large central bank meetings held in North America for the first time:

- the 2017 Central Bank Executive Summit, with 100 attendees from 40 central banks
- the Group of Computer Experts/Central Bank IT Exchange meeting, with participants from 18 central banks

6 These include the FSB; the BIS Committee on the Global Financial System, which monitors developments in global financial markets for central bank governors; the Committee on Payments and Market Infrastructure; and the Basel Committee on Banking Supervision.

- the Working Party on Security Issues meeting, attracting 17 central banks
- the central bank distributed ledger technology network, attended by 9 central banks

The Bank also provides technical assistance to central banks and other international agencies that can benefit from its expertise. Participating institutions may visit the Bank, submit questionnaires or have discussions by video or teleconference. In 2017, the Bank accommodated 105 requests for technical assistance.

More information

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- Canada and the G7
- Canada Supports International Work on Cyber Security
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GOVERNANCE OF THE BANK OF CANADA

Governance in 2017

The *Bank of Canada Act* provides the legal authority and framework for governance of the Bank of Canada.

Governor

The Governor of the Bank of Canada is both the Chief Executive Officer of the Bank and Chair of its Board of Directors.

Pursuant to the *Bank of Canada Act*, the Governor has specific authority and responsibility for the business of the Bank, including the formulation and implementation of monetary policy, the provision of fiscal-agent services to the government, the issuance of bank notes and the provision of liquidity to the financial system. The Governor oversees Canada's major payment clearing and settlement systems, as stipulated in the *Payment Clearing and Settlement Act*.

In his role as Chair, the Governor leads the Board in its oversight responsibilities for financial and administrative matters at the Bank.

Board of Directors

The Board of Directors of the Bank of Canada is composed of the Governor, the Senior Deputy Governor and 12 independent directors.

All independent directors are appointed for three-year renewable terms by the Governor-in-Council (the Cabinet). The Deputy Minister of Finance is an ex-officio, non-voting member of the Board.

The Board has specific responsibilities related to financial and accounting matters and human resources. Monetary policy is neither formulated nor implemented by the Board.

The Bank strives to maintain leading standards of corporate governance and management. To that end, the Board and senior management stay informed about best practices used by similar public institutions, central banks and private sector organizations.

Board members also keep the Bank informed about prevailing economic conditions in their respective regions.

Changes to the Board of Directors in 2017

In December 2017, Finance Minister Bill Morneau announced the appointment of Peter P. Dhillon and the reappointment of Monique Jérôme-Forget to the Board of Directors of the Bank of Canada.

Board of Directors and committee meetings

The Board and its committees meet regularly in Ottawa throughout the year. The Board holds one meeting outside of Ottawa as part of the Bank's regional outreach program. In 2017 the Board met six times, and the external meeting was held in Winnipeg, Manitoba.

In addition, the *Bank of Canada Act* provides for an Executive Committee to act in place of the Board. In 2017, the Executive Committee met twice: in July to receive an economic briefing from the Senior Deputy Governor and in September to receive the Bank's annual Senior Officer and Succession Planning report.

Each committee has terms of reference and an annual workplan to guide its activities.

An independent director acts as Chair of the Fellowship Program Nominating Committee. That post was held by Colin Dodds in 2017.

Board independence

Given that the Governor is both Chair of the Board of Directors and Chief Executive Officer, the independent (non-management) directors elect a lead director for a two-year renewable term to act as a key point of contact with the Governor. Derek D. Key acted as lead director in 2017.

The Board and its committees regularly hold sessions without management or non-independent directors present. Each committee of the Board, except the Pension Committee, consists solely of independent directors.

The Audit and Finance Committee provides Board oversight of the Bank's internal auditors and manages the relationship with the Bank's external auditors, who are appointed by the Governor-in-Council. This committee meets privately on a regular basis with the joint auditors, the Chief Internal Auditor, and the Chief Financial Officer and Chief Accountant.

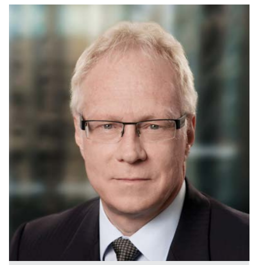
The Board and its committees have the right to retain independent advisors at the Bank's expense.

The Board of Directors


Stephen S. Poloz[2*]
Governor


Carolyn A. Wilkins[2, 7*]
Senior Deputy Governor


Norman M. Betts[4, 7]
Fredericton, New Brunswick


Alan Andrew Borger[3, 5]
Winnipeg, Manitoba


Phyllis Clark[2, 4*, 5]
Edmonton, Alberta


Peter P. Dhillon
Richmond, British Columbia

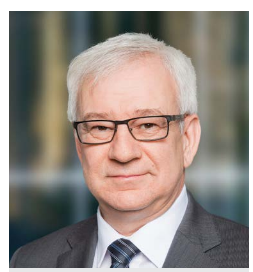

Colin Dodds[6, 7, 8*]
Halifax, Nova Scotia


Monique Jérôme-Forget[2, 3, 6*]
Montréal, Quebec


Claire Kennedy[2, 3*, 4, 6]
Toronto, Ontario


Derek D. Key[1, 2, 3, 5*]
Summerside, Prince Edward Island


Wes Scott[4, 7]
Toronto, Ontario


Jean Simon[3, 6]
Saguenay, Quebec


Greg Stewart[6, 7]
Regina, Saskatchewan


Martin Sullivan[4, 5]
Calvert, Newfoundland and Labrador


Paul Rochon[2]
Deputy Minister of Finance, Member ex officio

1. Lead Director
2. Member of Executive Committee
3. Member of Corporate Governance Committee
4. Member of Audit and Finance Committee
5. Member of Capital Projects Committee
6. Member of Human Resources and Compensation Committee
7. Member of Pension Committee
8. Fellowship Nominating Committee

* Indicates committee chair

Committees of the Board of Directors

Committee	Chair	Mandate	Number of meetings in 2017[a]
Audit and Finance Committee	Phyllis Clark	▪ To provide Board oversight on the financial affairs of the Bank, including its medium-term plan, annual budget and expenditures, and on internal and external audit activities	6
Human Resources and Compensation Committee	Monique Jérôme-Forget	▪ To provide Board oversight on human resources policies and practices, compensation policies, succession planning, and the performance of senior executives ▪ To recommend compensation for the Governor and the Senior Deputy Governor, within ranges set by the Governor-in-Council and subject to its approval	3
Corporate Governance Committee	Claire Kennedy	▪ To provide Board oversight on corporate governance policies and practices, including Board effectiveness, Board member education, terms of reference of the Board and its committees, and the composition of Board committees	3
Capital Projects Committee	Derek D. Key	▪ To provide Board oversight for significant Bank projects	6
Pension Committee[b]	Carolyn A. Wilkins	▪ To provide advice to the Board on the Bank's responsibilities as sponsor and administrator of the Bank of Canada Pension Plan, including Plan investment policies, Plan administration, communications and stakeholder relations	4

a. Attendance figures for the Board are published on the Bank of Canada website.
b. The Pension Committee is composed of four independent directors, the Senior Deputy Governor and three other senior officers of the Bank.

Board conduct, effectiveness and education

The Board regularly assesses its effectiveness by soliciting directors' views on various aspects of the Board's operations, governance and activities. New directors participate in a comprehensive orientation program. The Board has implemented an ongoing director education program and regularly examines its education requirements.

The *Bank of Canada Act* specifies eligibility requirements for members of the Board, including rules to prevent conflict of interest. The Board requires its independent directors to follow the *Code of Business Conduct and Ethics for Directors.*

Director compensation

Independent directors are paid within the ranges established under the *Remuneration Guidelines for Part-Time Governor-in-Council Appointees in Crown Corporations*, administered by the Privy Council Office.

Board member compensation

- Annual retainer: $8,000
- Executive Committee, additional retainer: $3,000
- Committee Chair, additional retainer (excluding Corporate Governance Committee Chair): $1,000
- Corporate Governance Committee Chair, additional retainer: $2,000
- Per diem for meeting attendance: $625

Executive Council, from left: Deputy Governor Lynn Patterson, Deputy Governor Lawrence Schembri, Governor Stephen S. Poloz, Senior Deputy Governor Carolyn A. Wilkins, Deputy Governor Sylvain Leduc, Deputy Governor Timothy Lane, and Chief Operating Office Filipe Dinis.

In accordance with its policy on travel, meals and accommodation expenses, the Bank reimburses independent members of the Board for expenses claimed while attending meetings of the Board, its committees or other Board-related activities.

The Governor, Senior Deputy Governor and Deputy Minister of Finance receive no compensation for their duties as members of the Board.

Bank of Canada management

Governor and Senior Deputy Governor

The Governor and Senior Deputy Governor are appointed for terms of seven years by the independent directors, with the approval of the Governor-in-Council. The length of the term allows the Governor and Senior Deputy Governor to adopt medium- and longer-term perspectives, which are essential to conducting effective monetary policy.

The salaries of the Governor and Senior Deputy Governor are determined by the Board within ranges established by the Government of Canada's Advisory Committee on Senior Level Retention and Compensation. They are subject to approval by the Governor-in-Council.

The remaining components of their total compensation are related to their membership in the Bank of Canada Pension Plan and health and dental benefits. The *Bank of Canada Act* stipulates that the salaries of the Governor and Senior Deputy Governor shall not include any performance-based element.

Governing Council

The Governing Council is made up of the Governor, the Senior Deputy Governor and four deputy governors. The Governing Council is responsible for setting the Bank's strategic direction and overseeing the Bank's core functions. Two committees are in place to provide advice to the Governing Council.

1. **Monetary Policy Review Committee**

   The Monetary Policy Review Committee (MPRC) meets regularly to share information and to provide advice to the Governing Council on monetary policy. The committee plays an important role in the assessment of economic conditions.

   The MPRC consists of the Governing Council, the General Counsel and Corporate Secretary, advisors, managing directors of the economics and communications departments, the financial market directors in Montréal and Toronto, and the Bank's senior representative in New York. The MPRC is chaired by the Governor or, in the absence of the Governor, by the Senior Deputy Governor.

2. **Financial System Review Committee**

   The Financial System Review Committee (FSRC) is the main forum for the presentation and discussion of financial system issues. It has broad membership that includes all members of the MPRC and the Managing Director of the Currency Department. The FSRC is chaired by the Governor or, in the absence of the Governor, by the Senior Deputy Governor.

Bank of Canada management structure

The Chief Operating Officer oversees strategic and operational planning, administration and operations.

The **Executive Council** is the primary forum for management discussion and decisions on the Bank's strategic direction. It is composed of members of the Governing Council and the Chief Operating Officer.

The Bank also has six advisors and a Chief Risk Officer who provide advice and expertise to the Governing Council and the Executive Council.

The **Leadership Forum** focuses on strategic Bank issues and building a leadership culture. Board debriefs, seminars and other meetings are key means of information sharing. The forum consists of members of the Executive Council, together with the Bank's advisors, the Chief Risk Officer and managing directors.

The **Senior Management Council** supports the work of the **Executive Council** by overseeing operational issues, corporate programs, strategic initiatives, financial reporting, annual planning and related risks. The Senior Management Council is composed of the Senior Deputy Governor (Chair), the Chief Operating Officer (Co-Chair), the General Counsel and Corporate Secretary, the Chief Risk Officer, the Chief Financial Officer and Chief Accountant, the Chief Human Resources Officer, the Managing Director of Corporate Services, and the managing directors of four other departments on 18-month rotations. In 2017, the rotating positions were filled by the managing directors of Canadian Economic Analysis, Communications, Currency and Financial Markets.

The Bank's departments are Audit, Canadian Economic Analysis, Communications, Corporate Services, Currency, Executive and Legal Services, Financial Markets, Financial Services, Financial Stability, Funds Management and Banking, Human Resources, Information Technology Services, and International Economic Analysis. In addition, the Managing Director of Economic and Financial Research coordinates the research activities across the economics departments.

Compliance and ethics

The Bank requires that all employees observe the highest standards of professional ethics. To this end, the Bank's comprehensive *Code of Business Conduct and Ethics* is in place to address the personal and professional conduct of Bank employees.

The Code serves as a guide for all employees on the professional ethics expected by the Bank, including behaviour related to conflict of interest, work environment, confidentiality, conduct of personal financial transactions and handling of information. Senior employees and those with access to certain confidential information are subject to enhanced trading restrictions.

Once a year, Bank employees, individuals seconded to the Bank and certain consultants are required to formally acknowledge their awareness of, and compliance with, the Code.

The *Code of Business Conduct and Ethics* is reviewed annually by the Board.

Disclosure of wrongdoing framework

The Bank has a policy and processes to support the disclosure of wrongdoing, including the provision of information to employees on how to report wrongdoing. The processes also provide for management's role in disclosures, investigations and reporting.

Senior Management[1]

Governing Council

Governor
Stephen S. Poloz*

Senior Deputy Governor
Carolyn A. Wilkins*

Deputy Governors
Timothy Lane,* Sylvain Leduc,* Lynn Patterson,*
Lawrence Schembri*

Chief Operating Officer
Filipe Dinis*

Chief of Staff to the Governor and Senior Deputy Governor
Jill Vardy

General Counsel and Corporate Secretary, and Managing Director, Executive and Legal Services
Jeremy S. T. Farr

Advisors
Paul Chilcott, Don Coletti, Sheryl King, Sharon Kozicki, Stephen Murchison and Jill Vardy

Chief Risk Officer
Carol Ann Northcott

Audit
Julie Champagne, *Managing Director and Chief Internal Auditor*

Canadian Economic Analysis
Eric Santor, *Managing Director*

Communications
Jeremy Harrison, *Managing Director*

Corporate Services
Dinah Maclean, *Managing Director*

Currency
Richard Wall, *Managing Director*

Economic and Financial Research
Vacant

Financial Markets
Toni Gravelle, *Managing Director*

Financial Services
Carmen Vierula, *Chief Financial Officer and Chief Accountant*

Financial Stability
Ron Morrow, *Managing Director*

Funds Management and Banking
Grahame Johnson, *Managing Director*

Human Resources
Alexis Corbett, *Managing Director and Chief Human Resources Officer*

Information Technology Services
Sylvain Chalut, *Managing Director and Chief Information Officer*

International Economic Analysis
Rhys Mendes, *Managing Director*

1 As at December 31, 2017
* Member of Executive Council

After returning to the renewed head office in the first quarter, employees started using the many shared spaces and facilities designed to improve efficiency and promote collaboration and innovation at the Bank.

RISK MANAGEMENT

Risk management

The Bank of Canada is exposed to a range of risks from internal and external factors that may influence its ability to achieve its mandate and strategic goals.

The Bank maintains a strong risk management culture and implements an enterprise risk management (ERM) framework that promotes consistent management of strategic, operational and financial risks.

ERM processes are integrated into the Bank's governance and decision making, allowing significant and emerging risks to be identified and appropriately managed, in keeping with the Bank's risk appetite statement (RAS).

The Bank of Canada's risk appetite

The Bank, like any organization, cannot achieve its objectives without taking some degree of risk. While risk taking in an uncalculated fashion can lead to negative consequences, unwarranted risk aversion can also create risks—stifling innovation and leading to inefficiency in operations.

The Bank's Executive Council approves a risk appetite statement (RAS) each year to articulate their philosophy of risk management, as well as the type and amount of risk, at a broad level, that the Bank is willing to accept. The RAS is principles-based and provides high-level guidance to staff on what constitutes acceptable risk taking.

Risk appetite statement

The Bank of Canada's mandate is to promote the economic and financial welfare of Canadians. We pursue our mandate by keeping inflation low, stable and predictable, fostering a safe and efficient financial system, serving as fiscal agent to the Government of Canada, and providing Canadians with bank notes they can use with confidence. Our vision is to be a leading central bank—dynamic, engaged and trusted—committed to a better Canada.

As a central bank, we face a specialized and complex environment in which we manage a range of risks arising from external forces, as well as from our own activities. The operational and financial risks that confront us across all our activities are managed through sound internal controls. At the same time, the policy domain is highly strategic and dynamic in nature, since, at the core, the central bank makes decisions that anticipate the future in the context of uncertainty and, sometimes, public debate. We use judgment to weigh and manage all risks in light of their potential impact on the Bank's credibility, reputation and capacity to achieve its long-term objectives.

Bank employees manage these various risks in accordance with their delegated authority and within a comprehensive system of controls and deliberation processes designed to be commensurate with risk. We regularly monitor known risks and scan the horizon to identify emerging risks in both policy and operational areas.

Accordingly, our risk-management activities are guided by the following:

1. We seek to minimize and manage the impact of risks that could undermine the Bank's ability to fulfill its mandate.
   - We actively seek to prevent the occurrence of material risk events that affect our ability to carry out and support our core functions.
   - We have governance arrangements that help us scrutinize and evaluate the potential consequences of our major policy and operational decisions, and we review and learn from our own and others' experiences.
   - Through our systems and practices, we seek to anticipate and assess new risks to our core functions, and respond to risks effectively should they materialize.
2. We take informed risks to foster innovation, to advance our research and policy development, and to improve our operations and business practices.
   - We encourage leading-edge research and innovative lines of inquiry, including constructive public discourse and debate, to advance our policy thinking and frameworks.
   - We pursue process and technological innovation to respond to and mitigate emerging risks and to increase effectiveness, efficiency and resilience.
   - We consider alternative futures and approaches to meeting our mandate within the context of a changing environment.

Enterprise risk management in 2017

In 2017, the ERM framework was refined to increase the integration of risk information into decision making and strategic planning, enhance the analytic rigour of risk reporting, and articulate and start to embed risk appetite in business practices.

Policy enhancements included the development of a framework for financial risk management. This has resulted in a more systematic, well-understood approach to risk management, characterized by heightened engagement and greater consideration of risk and risk appetite in important Bank decisions.

Risk governance

The objective of the ERM program is to embed risk into governance and enable risk-informed decision making in the Bank's day-to-day operations to meet its legislative mandate and strategic plan.

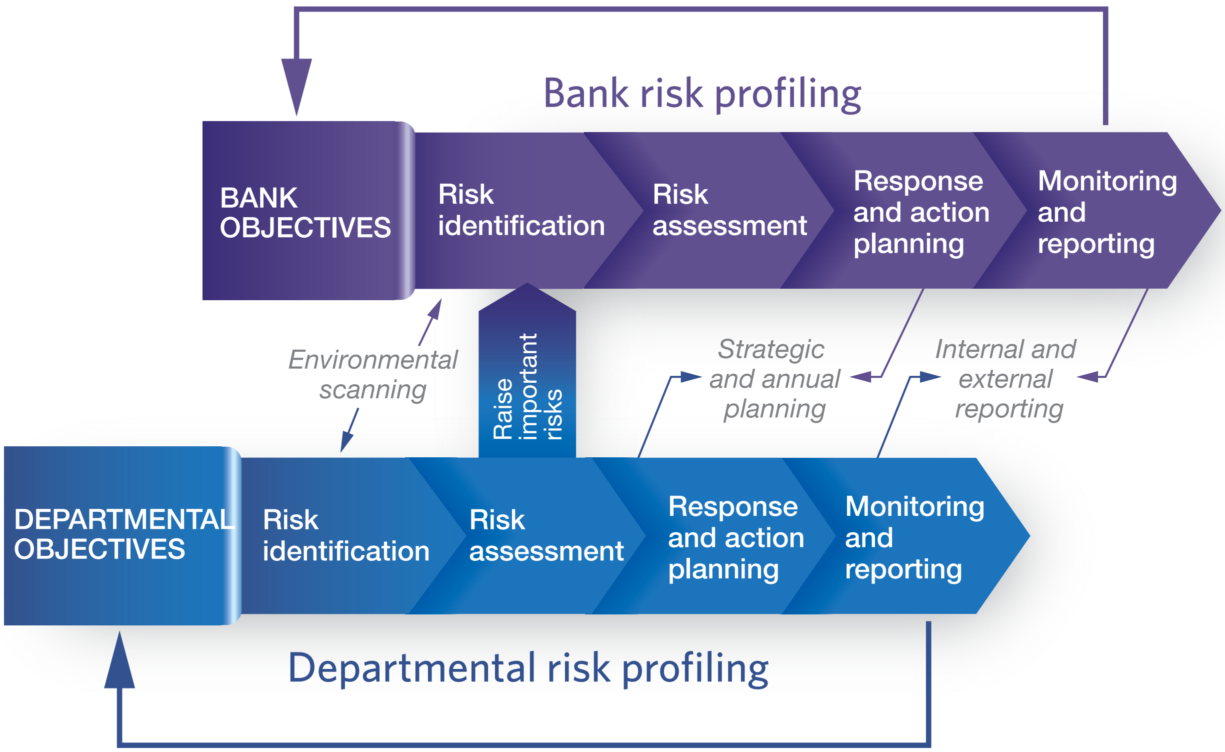
The Governor, as Chief Executive Officer, has ultimate responsibility for risk management at the Bank, under the oversight of the Board of Directors. This responsibility is delegated to the Senior Deputy Governor and other members of the Executive Council, who oversee the ERM program and the implementation of sound management processes to safeguard the Bank. They also review and approve changes to the ERM policy, framework and RAS in consultation with the Board of Directors, Senior Management Council and the Risk Oversight Committee, a subcommittee of the Senior Management Council.

The Chief Risk Officer (CRO) is the executive owner of the ERM program and chairs the Risk Oversight Committee. The CRO is a member of the Senior Management Council and participates in enterprise-wide discussions on the Bank's risks, ensuring that the program is integrated in decision making. The CRO facilitates the development of the Bank's risk profile, monitors risk-related activities and issues, and prepares regular reports for the Senior Management Council, Executive Council and Board of Directors.

The Bank follows a three-lines-of-defence approach to the roles, responsibilities and accountabilities for risk management, control, policy, monitoring and assurance within the Bank:

- Individual business units form the **first line of defence**. They identify the risks in their areas of responsibility and are accountable for the timely and effective management of risks that could affect the achievement of their objectives.
- The **second line of defence** involves the policy-making, monitoring and compliance roles performed by a range of risk management and compliance business functions within the Bank, including the ERM team, the compliance and financial risk offices, and security services.
- The Audit Department acts as the **third line of defence**. It provides independent assurance to the Governor and the Board's Audit and Finance Committee on the effectiveness of the Banks's risk management, control and governance processes. It also advises management on the functioning of the first two lines of defence.

Risk profiling process



Principal risks

Bank risks are classified into three categories: strategic, operational and financial. This risk-classification scheme is the foundation of the enterprise-wide communication and integration of risk information. The Bank evaluates potential risks to its reputation within each of the three categories, rather than separately.

Strategic risks arise from external conditions, such as widespread shifts in public opinion or changes in economic or legal parameters, and the potential that business strategies are not aligned with the external environment.

Strategic risks are managed by continuously scanning the environment, maintaining extensive networks, and conducting research to identify and develop policy and operating measures to mitigate risk. The Bank also recognizes the important role of stakeholder engagement and communications in achieving its business objectives.

Operational risks stem from inadequate or failed internal processes, people and systems or from external events. The Bank has identified and manages operational risks in the following categories:

- business resilience and security
- systems and physical infrastructure
- people and culture
- information and communication
- business practices
- governance

The Bank operates in an increasingly complex security and threat landscape and is thus exposed to risks related to business continuity, cyber security, and physical and personnel security. To manage these risks, the Bank has adopted programs to promote cyber and physical security and ensure continuity of operations.

Several substantial strategic initiatives are under way to further strengthen the Bank's business resilience and cyber security posture as threats evolve and emerge globally. The Bank's resilience programs often involve collaboration with other central banks and the federal security and intelligence community.

An important area of operational risk is infrastructure, particularly in relation to "mission-critical" and "critical"[7] systems and tools that support the Bank's core mandate. Examples include payment clearing and settlement systems, securities auctions, and systems that manage foreign exchange reserves. The Bank invests in and renews these systems as required.

Fundamental to prioritizing and managing the interdependencies among these strategic initiatives are clear governance structures; effective internal policies, processes and standards; and careful resource management.

The Bank faces internal and external risks related to human resources (HR). These include a highly competitive labour market that affects the Bank's ability to attract and retain experts in specialized fields, such as the economic and financial sector and cyber security. The Bank is continually updating its HR approaches to meet these challenges. HR programs have been modernized to improve retention, develop leaders and provide opportunities for employees to update their skills.

The rapidly changing global economic and financial environment increases the risk that the Bank will not have the best possible economic data, market intelligence or economic models needed to inform its policy decisions. This risk is managed through an extensive program of research and analysis, as well as through collaborating and sharing information with other central banks and partner agencies. In 2017, major acquisitions of big data helped manage this risk.

Consistent with similar organizations, the Bank has operational risks related to its dependencies on third parties for critical operations, infrastructure and professional services; Bank business practices; and its governance of business activities.

Financial risks relate to the potential for financial losses arising from credit, market and liquidity risks.

The Bank's financial risks are low because its asset portfolio consists primarily of Government of Canada securities. In exceptional circumstances, however, such as a financial crisis, the Bank may take on a higher level of risk.

Senior management has established a system of internal controls for its financial assets and liabilities, including a framework for financial risk management. The Bank's Financial Risk Office monitors and regularly reports on these risks.

Financial risks are discussed in detail in the notes to the Bank's financial statements.[8] Financial risks associated with the Bank's role as fiscal agent are not reflected in its financial statements. These risks are subject to oversight under the Funds Management Governance Framework of the Government of Canada and the Bank of Canada and are borne by the government.

7 "Mission critical" refers to systems that must be available 24 hours a day, seven days a week, with recovery required within two hours; "critical" refers to systems that need to be available during business hours and, if not, recovery must occur within two hours.

8 Additional information on financial risk management starts on page 96.

2017 FINANCIAL RESULTS

Overview

The Bank of Canada is a Crown corporation wholly owned by the Government of Canada and accountable to the Minister of Finance. The Bank works closely with the Department of Finance Canada and other federal and provincial financial regulators to promote a strong economy and oversee Canada's financial systems.

The Bank's financial structure supports its arm's-length relationship with the government in the conduct of monetary policy. The Bank has an independent revenue stream to fund its activities and operations. Net income remaining after any allocation to reserves is remitted to the Government of Canada in accordance with the requirements of the *Bank of Canada Act*. The Bank does not have a budget appropriation from the government.

Managing the balance sheet

The Bank's holdings of financial assets are generally driven by its role as the exclusive issuer of Canadian bank notes. The issuance of bank notes creates a liability for the Bank, the largest on its balance sheet. Government of Canada deposits, including those supporting the government's prudential liquidity plan, typically represent the second-largest liability for the Bank.

To offset these liabilities, the Bank invests the proceeds from the issuance of notes and deposits primarily into Government of Canada securities, which are acquired on a non-competitive basis.

The Bank also undertakes financial market transactions with eligible financial institutions in support of monetary policy objectives and the efficient functioning of Canadian financial markets. The Bank's transactions are typically securities purchased under resale agreements (SPRAs) or securities sold under repurchase agreements (SSRAs), where the Bank injects or withdraws liquidity by acquiring or selling financial assets.

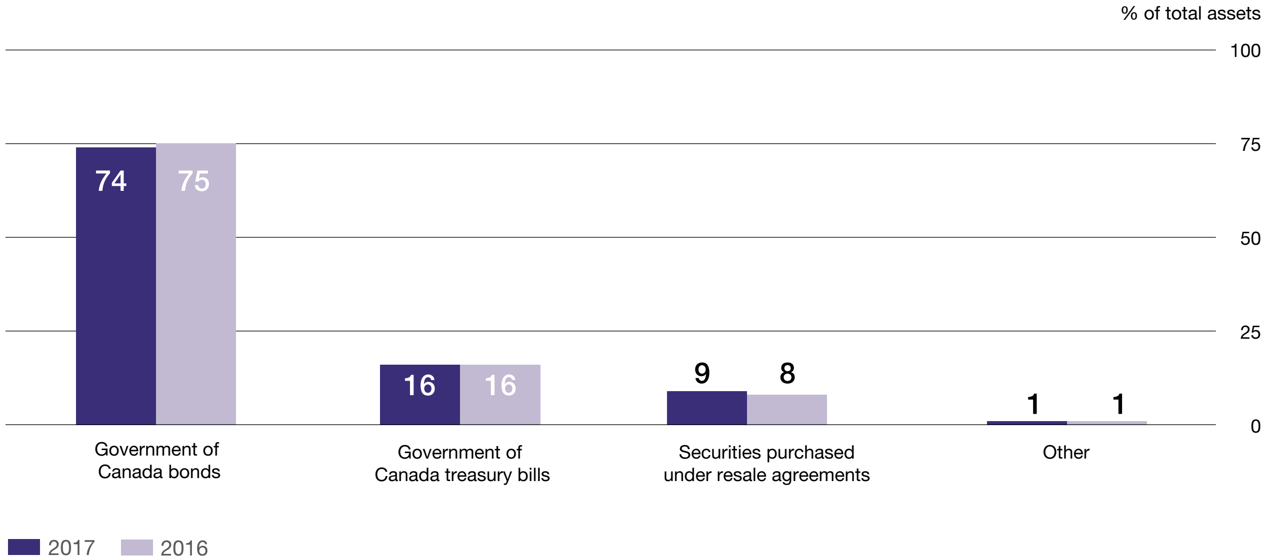
The Bank's investments broadly mirror the structure of the federal government's nominal domestic debt outstanding. This makes the Bank's balance sheet a neutral factor in the government's debt-management and fiscal-planning activities and limits the impact of the Bank's purchases on market prices.

Financial position
(in millions of Canadian dollars)

	As at December 31	
	2017	2016
Assets		
Cash and foreign deposits	14.6	19.3
Loans and receivables	9,483.0	8,282.2
Investments	100,861.0	97,032.7
Capital assets[a]	609.1	606.9
Other assets	132.6	164.9
Total assets	111,100.3	106,106.0
Liabilities and equity		
Bank notes in circulation	85,855.9	80,478.6
Deposits	24,228.8	22,831.5
Securities sold under repurchase agreements	-	1,500.0
Other liabilities	520.0	808.9
Equity	495.6	487.0
Total liabilities and equity	111,100.3	106,106.0

a. Includes *Property and equipment* and *Intangible assets*

Asset profile
As at December 31



Assets

The Bank's investments have increased by $3,828.3 million (or 4 per cent) since December 31, 2016, generally driven by increases in *Bank notes in circulation* (as described in the discussion on Liabilities).

Government of Canada bonds were $82,087.0 million as at December 31, 2017, representing an increase of $2,241.1 million (or 3 per cent) from year-end 2016. Higher volumes of bonds auctioned on behalf of the Government of Canada were partially offset by a lower minimum purchase amount of nominal bonds at auctions. The minimum purchase amount of nominal bonds at auctions was reduced from 20 to 15 per cent in 2016, and further reduced to 14 per cent during the first quarter of 2017 and 13 per cent at year-end.

Government of Canada treasury bills were $18,370.4 million, an increase of $1,578.6 million (or 9 per cent) from year-end 2016, predominantly as a result of higher volumes of purchases over maturities. Purchases of Government of Canada treasury bills are based on the Bank's balance sheet needs.

The remaining change in investments was an increase of $8.6 million (or 2 per cent) in the fair value of the Bank's investment in shares of the Bank for International Settlements (BIS), which was largely driven by growth in the BIS balance sheet.

Included in *Loans and receivables* were SPRAs totalling $9,478.5 million as at December 31, 2017 ($8,277.0 million as at December 31, 2016), representing an increase of $1,201.5 million (or 15 per cent) from the previous year. SPRAs represent high-quality assets temporarily acquired through the repo market in line with the Bank's framework for financial market operations. These operations were primarily conducted to manage the Bank's balance sheet, promote the orderly functioning of Canadian financial markets and offset seasonal fluctuations in the demand for bank notes.[9]

Overall, the Bank's *Capital assets* remained consistent with December 31, 2016, following the completion of the Head Office Renewal Program during the fourth quarter of 2016. Additions to capital assets for 2017 largely consisted of finishing work and purchases of remaining equipment related to the Bank's head office location, fit-up of the Bank of Canada Museum that reopened on July 1, 2017, and enhancements to support the Bank's medium-term plan (MTP) resiliency initiatives, including cyber security and business recovery enhancements.

9 Demand for bank notes typically reaches its lowest level at the end of the first quarter and peaks in the second and fourth quarters around holiday periods.

Other assets includes the net defined-benefit asset related to the Bank of Canada Pension Plan. The net defined-benefit asset decreased by $22.2 million (or 17 per cent) compared with December 31, 2016, primarily due to a 40-basis-point decrease in the discount rate[10] used to measure the related defined-benefit obligation and the actuarial impact of the Bank's renewed approach to total compensation. This decrease was partially offset by positive asset returns in 2017.

Liabilities

The *Bank notes in circulation* liability represents approximately 77 per cent (76 per cent as at December 31, 2016) of the Bank's *Total liabilities and equity*. Currency remains an essential means of undertaking transactions in Canada. The value of *Bank notes in circulation* has increased by $5,377.3 million (or 7 per cent) since December 31, 2016, driven largely by a higher demand for the $100 denomination and continued growth in the other denominations.

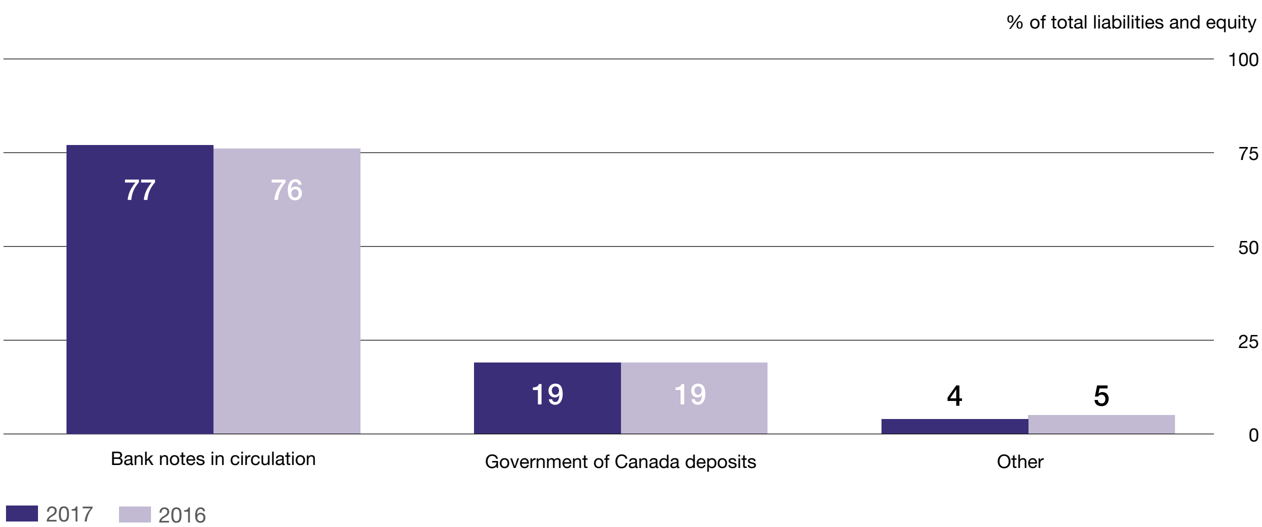
The second-largest liability on the balance sheet consists of deposits held for the Government of Canada and other financial institutions. The main components of the *Deposits* liability are $20,000.0 million ($20,000.0 million as at December 31, 2016) held for the government's prudential liquidity-management plan and $1,454.2 million held for the government's operational balance ($228.4 million as at December 31, 2016). The Government of Canada operational balance increased by $1,225.8 million compared with year-end 2016.[11]

Other deposits of $2,274.3 million as at December 31, 2017 ($2,103.4 million as at December 31, 2016) consist of deposits from central banks and other financial institutions, and unclaimed balances remitted to the Bank in accordance with governing legislation. The increase of $170.9 million (or 8 per cent) from the previous year-end was mainly due to the timing of deposits made by central banks and other financial institutions over which the Bank does not exercise control. Also included in *Deposits* was $500.3 million ($499.7 million as at December 31, 2016) held for members of Payments Canada to support the smooth operation of the Canadian payments system.

Securities sold under repurchase agreements of $1,500.0 million outstanding as at December 31, 2016, matured during the first quarter of 2017. There were no outstanding SSRAs as at December 31, 2017; however, these agreements were used over the course of 2017 to support the Bank's monetary policy function and withdraw intraday liquidity from the market.

Other liabilities were $520.0 million as at December 31, 2017, a decrease of $288.9 million (or 36 per cent) from the previous year-end. These liabilities consisted mainly of the surplus payable to the Receiver General for Canada and the net defined-benefit liabilities for the Bank's employee benefit plans, including the

Liability profile
As at December 31



10 The net defined-benefit asset is measured using the discount rate in effect as at the period-end. The rate as at December 31, 2017, was 3.5 per cent (3.9 per cent as at December 31, 2016).

11 The operating portion of the deposit is dependent on the cash needs of the Government of Canada, and fluctuations that occur are a result of decisions related to cash-flow management.

Summary of Equity
As at December 31
(in millions of Canadian dollars)

	2017	2016
Share capital	5.0	5.0
Statutory reserve	25.0	25.0
Special reserve	100.0	100.0
Available-for-sale reserve	365.6	357.0
Total	**495.6**	**487.0**

liability for the Bank of Canada Supplementary Pension Arrangement and unfunded post-employment defined-benefit plans.

Changes in the surplus payable to the Receiver General for Canada are the result of the timing of cash payments to the Receiver General for Canada. Net income of the Bank, less any allocations to reserves, is paid each year to the Receiver General for Canada. For the year ended December 31, 2017, the Bank transferred cash payments of $1,193.7 million ($849.5 million for the year ended December 31, 2016). As at December 31, 2017, the surplus payable was $204.2 million ($468.8 million as at December 31, 2016).

Liabilities related to the Bank's defined-benefit plans were $242.7 million as at December 31, 2017, representing an increase of $32.5 million (or 15 per cent) from year-end 2016. Increases in the liabilities primarily reflect decreases in the discount rates[12] used to measure the defined-benefit obligations and the actuarial impact of the Bank's renewed approach to total compensation.

Finally, following the completion of the Head Office Renewal project, vendor holdbacks and provisions relating to temporary office space totalling $56.8 million were settled in 2017.

Managing equity

The Bank of Canada operates safely with a low capital base relative to its assets. The Bank's primary equity includes $5 million of authorized share capital and a $25 million statutory reserve.

The Bank can operate safely with a low capital base because its balance sheet is not exposed to significant foreign currency risk or fluctuations in the price of gold holdings that are often held by other central banks.

Canada's foreign reserves are held by the Exchange Fund Account and not by the Bank. The Bank is exposed to currency risk primarily through its holdings of shares in the BIS. Given the small size of the Bank's net foreign currency exposure relative to its total assets, currency risk is not considered significant.

In addition, the Bank's asset portfolio has a low credit risk, since it consists primarily of bonds and treasury bills issued by the Government of Canada. Furthermore, the holdings in Government of Canada bonds are not subject to fair value accounting, since they are acquired with the intention to be held until maturity and are therefore accounted for using the amortized cost method. Other financial assets, such as advances and loans related to repurchase agreements, are transacted on a fully collateralized basis (see Note 7 to the Financial Statements for further information on the quality of collateral held).

The Bank also holds a special reserve of $100 million to offset valuation losses arising from changes in the fair value of available-for-sale (AFS) assets (see Note 18 to the Financial Statements). There has been no change in the reserve since its inception.

The largest reserve held by the Bank is the AFS reserve, which represents the net unrealized fair value gains in the Bank's investment in the BIS and the portfolio of Government of Canada treasury bills. Fair value changes are reported in *Other comprehensive income,* and net unrealized fair value gains are accumulated in the AFS reserve within *Equity*. As at December 31, 2017, this reserve totalled $365.6 million ($357.0 million as at December 31, 2016) and consisted of the net unrealized fair value gains in the Bank's investment in the BIS. There were no remaining net unrealized fair value gains on Government of Canada treasury bills within the reserve as at December 31, 2017, and December 31, 2016.

12 The net defined-benefit liability is measured using the discount rates in effect for each plan as at the period-end. The rates as at December 31, 2017, ranged from 3.1 to 3.5 per cent (3.2 to 4.0 per cent as at December 31, 2016).

Results of Operations
For the year ended December 31
(in millions of Canadian dollars)

	2017	2016
Total income	1,479.5	1,531.3
Total expenses	(503.8)	(466.4)
Net Income	**975.7**	**1,064.9**
Other comprehensive income (loss)	(38.0)	(7.3)
Comprehensive Income	**937.7**	**1,057.6**

Income

Total income for 2017 was $1,479.5 million, a decrease of $51.8 million (or 3 per cent) compared with the previous year.

The income generated from the assets backing the bank notes in circulation (net of bank note production and distribution costs) is referred to as “seigniorage”; it provides a constant and stable source of funding for the Bank’s operations.

The Bank’s primary source of revenue is interest earned on Government of Canada securities, which fluctuates with market conditions. In 2017, the Bank recorded $1,603.4 million in interest revenue from treasury bills and bonds—a decrease of $2.2 million (or 0.1 per cent) from the previous year. Although overall average holdings of investments were higher during 2017, the decrease is a result of lower yields on newly acquired bonds, partially offset by higher yields on newly acquired treasury bills. Acquisitions of treasury bills and bonds are made at current market rates and affect the yield profile of the portfolio as older instruments reach maturity.

In 2017, interest earned on securities purchased under resale agreements was $52.4 million ($37.4 million in 2016), representing an increase of $15.0 million (or 40 per cent) from the previous year. This increase was driven predominantly by higher overall yields during 2017.

Income is reported net of the interest paid on deposits held at the Bank by the Government of Canada, members of Payments Canada and other financial institutions, which amounted to $187.4 million in 2017 ($122.7 million in 2016). Interest rates paid on deposits are based on market-related rates, which increased from 2016, resulting in an increase in the interest paid on deposits of $64.7 million (or 53 per cent) compared with the previous year.

The Bank’s revenue from its remaining sources was $11.1 million for the year ended December 31, 2017 ($11.0 million for the year ended December 31, 2016) and included dividends received from the BIS, and safekeeping and custodial fees.

Expenses

Operating expenses were in line with expectations for 2017. The increase over the previous year of $37.4 million (or 8 per cent) primarily reflected increases in both staffing costs planned to maintain the market competitiveness of the Bank’s approach to total compensation and expenditures on MTP resiliency initiatives, including cyber security and business recovery enhancements.

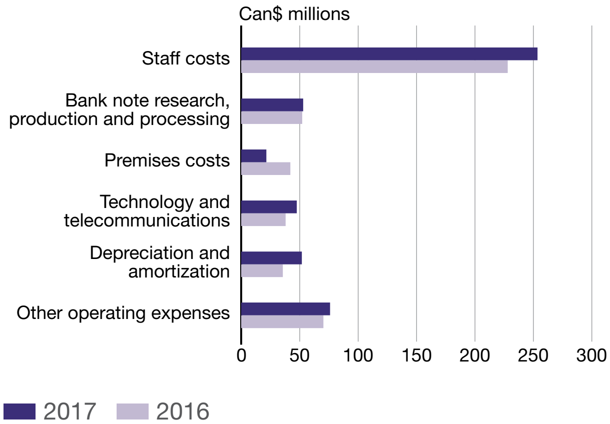
Staff costs increased by $25.5 million (or 11 per cent) in 2017 compared with 2016. The increase was the result of the Bank’s renewed approach to total compensation, increased staffing to support MTP initiatives and higher benefit costs associated with the Bank’s defined-benefit plans.

Costs associated with bank note production were $0.9 million (or 2 per cent) higher than the previous year, due primarily to differences in the timing of the bank note production plan from the previous year. During 2017, 9 million more notes were received than in 2016.

Consistent with 2016, the remaining expenses (*Premises costs, Technology and telecommunications, Depreciation and amortization* and *Other operating expenses)* represented 39 per cent of the Bank’s total operating expenses for 2017 (40 per cent in 2016). These costs increased by $11.0 million (or 6 per cent) compared with 2016. The increase was largely driven by depreciation on the newly renovated building, which began in the first quarter of 2017, and expenditures on MTP resiliency initiatives, including cyber security and business recovery enhancements. These expenditures

Bank of Canada expenses

For the year ended December 31



were partially offset by a decrease in premises costs, as the temporary locations used through the head office renovations were no longer required.

Other comprehensive income

Other comprehensive income for the year was a $38.0 million loss. It consisted of remeasurement losses of $37.1 million on the Bank's net defined-benefit plan asset and liabilities and a decrease of $0.9 million in the fair values of AFS assets.

Remeasurements pertaining to the Bank's defined-benefit plans are primarily affected by the return on plan assets, where funded; by changes in the discount rate used to determine the related defined-benefit obligations; and by changes in plan financial assumptions. The remeasurement losses recorded in 2017 were mostly the result of decreases in the discount rates[13] used to value the Bank's defined-benefit plans, and the actuarial impact on the defined-benefit obligation following the Bank's renewed approach to total compensation. These remeasurement losses were partially offset by positive asset returns on the Bank's pension plans.

AFS assets are composed of Government of Canada treasury bills and the Bank's investment in the BIS. Fair value changes are accumulated in the reserve for AFS assets within the Bank's *Equity* (see Note 18 of the Financial Statements). As at December 31, 2017, the fair value of the Bank's investment in the BIS was $403.6 million, representing an increase of $8.6 million from 2016 driven by growth in the BIS balance sheet. This increase was offset by fair value changes in the Bank's portfolio of Government of Canada treasury bills for which remeasurement losses of $9.5 million were recognized.[14]

Surplus for the Receiver General for Canada

The Bank's operations are not constrained by its cash flows or by its holdings of liquid assets, since income is predictable and exceeds expenses. The net income of the Bank, less any allocation to reserves, is considered ascertained surplus (surplus), which was $929.1 million in 2017. In accordance with the requirements of section 27 of the *Bank of Canada Act*, the Bank remits its surplus to the Receiver General for Canada and does not hold retained earnings.

The remittance agreement with the Minister of Finance allows the Bank to deduct from its remittances to the Receiver General for Canada and withhold an amount equal to unrealized losses on AFS assets, unrealized remeasurement losses on post-employment defined-benefit plans, and other unrealized or non-cash losses. Subsequently, amounts held back are reimbursed upon the recognition of unrealized gains.

During 2017, the Bank withheld $46.6 million from its remittances of surplus to the Receiver General for Canada ($3.9 million reimbursed from previously withheld remittances in 2016), and as at December 31, 2017, $156.0 million in withheld remittances was outstanding ($109.4 million outstanding as at December 31, 2016).

Looking ahead to 2018

The Bank's forecasts for its operations do not include projections of net income and financial position. Such projections would require assumptions about interest rates, which could be interpreted as a signal of future monetary policy.

13 The net defined-benefit asset and liabilities are measured using the discount rate in effect as at the period-end. The rate applicable to the net defined-benefit asset as at December 31, 2017, was 3.5 per cent (3.9 per cent as at December 31, 2016). The rates applicable to the net-defined benefit liabilities as at December 31, 2017, ranged from 3.1 to 3.5 per cent (3.2 to 4.0 per cent as at December 31, 2016).

14 Fair value changes in Government of Canada treasury bills are influenced by changes in the yields-to-maturity of those investments held and the yields of similar instruments available in the market at the measurement date.

The Bank's 2018 Plan
(in millions of Canadian dollars)

	2018 budget		2017 actuals	
	$	%	$	%
MTP expenditures	406	61	401	72
Bank note production	53	8	51	9
Non-current deferred employee benefits	31	5	18	3
Strategic investment programs[a]	174	26	88	16
Total expenditures[b]	664	100	558	100

a. Included Head Office Renewal expenditures in 2017 budget
b. Includes operational and capital expenditures

The Bank's current MTP, now in its final year, is based on a commitment of 2 per cent growth of MTP expenditures between 2015 and 2018. This represents zero real growth, consistent with the Bank's 2 per cent inflation target.

Initiatives committed to in the current MTP will continue to launch or progress in 2018 and into the next MTP for multi-year programs. The projected cumulative average growth over the life of the MTP remains aligned with our commitment of 2 per cent.

The Bank remains focused on strengthening its business continuity posture and, consequently, expects to see capital expenditures of $74.9 million in 2018 ($54.1 million for the year ended December 31, 2017), which predominantly reflect the Bank's continued investment in cyber security and business resiliency initiatives.

Accounting and control matters

The Bank conforms to the financial reporting requirements of the *Bank of Canada Act* as prescribed in the Bank's bylaws, which require that the Bank's financial statements be prepared in accordance with Generally Accepted Accounting Principles as set out in the *CPA Canada Handbook* published by the Chartered Professional Accountants of Canada. Consistent with CPA Canada guidance, the Bank is a government business enterprise as defined by the Canadian Public Sector Accounting Standards and, as such, adheres to the standards applicable to publicly accountable enterprises. In compliance with this requirement, the Bank has developed accounting policies in accordance with International Financial Reporting Standards.

The *Bank of Canada Act* requires the Bank to submit audited financial statements for the fiscal year ending December 31 to the Minister of Finance, accompanied by a summary report, by the end of February. The Minister then presents the *Annual Report* to Parliament, and a copy of the financial statements is published in the Canada Gazette.

Funding of deferred employee benefit plans

The Bank sponsors a funded defined-benefit pension plan (the Bank of Canada Pension Plan), which is a registered pension plan, and a partially funded Supplementary Pension Arrangement[15] (the Bank of Canada Supplementary Pension Arrangement) to provide retirement income benefits to eligible employees. The pension plans are funded in accordance with applicable federal pension legislation and actuarial standards of practice in Canada to ensure proper funding of employee benefit obligations. The Bank also sponsors unfunded benefit plans, including post-retirement and post-employment benefits.

The Bank of Canada Pension Plan

The Bank has been conducting annual actuarial valuations of its pension plan for funding purposes since 2008, with the latest completed valuation as at January 1, 2017. On a going-concern basis (which assesses the plan over the long term on the assumption that it will operate indefinitely), the plan had a funding ratio of 135 per cent (130 per cent as at January 1, 2016). On a solvency basis (which assesses the plan on the assumption that it would be terminated on the date

15 The Supplementary Pension Arrangement was established to pay pension benefits to employees with annual earnings above the amount covered by the registered pension plan, as provided under the *Income Tax Act* (Canada).

of the valuation), the funding status of the plan had a solvency ratio of 104 per cent (101 per cent as at January 1, 2016).

The funding requirements of the plan are determined by the going-concern valuation. The Bank's estimated funding requirement for 2018 is $11.0 million.

Internal control over financial reporting

The Bank maintains an internal control framework to evaluate the design and effectiveness of internal controls over financial reporting, as well as disclosure controls and procedures to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements.

FINANCIAL STATEMENTS

December 31, 2017

Contents

Glossary of Abbreviations

AFS	available-for-sale	**ITA**	*Income Tax Act*
BIS	Bank for International Settlements	**LVTS**	Large Value Transfer System
CPA Canada	Chartered Professional Accountants of Canada	**OCI**	other comprehensive income
FVOCI	fair value through other comprehensive income	**PSAS**	Public Sector Accounting Standards
FVTPL	fair value through profit or loss	**Pension Plan**	Bank of Canada Pension Plan
HTM	held-to-maturity	**SDR**	Special Drawing Rights
IAS	International Accounting Standard	**SIPP**	Statement of Investment Policy and Procedures
IASB	International Accounting Standards Board	**SPA**	Bank of Canada Supplementary Pension Arrangement
IFRS	International Financial Reporting Standards	**SPRAs**	securities purchased under resale agreements
IMF	International Financial Reporting	**SSRAs**	securities sold under repurchase agreements

Financial Reporting Responsibility

Management of the Bank of Canada (the Bank) is responsible for the financial statements, which are prepared in accordance with International Financial Reporting Standards. The amounts and financial information included in the statements reflect management's best estimates and judgment. Financial information presented elsewhere in the *Annual Report* is consistent with the financial statements.

Management is responsible for the integrity and reliability of the financial statements and the accounting system from which they are derived. The Bank maintains a system of internal controls to provide reasonable assurance that transactions are properly authorized and recognized, that financial information is reliable, that assets are safeguarded and liabilities recognized, and that operations are carried out effectively. The Bank's internal audit department reviews internal controls, including the application of accounting and financial controls.

The Board of Directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal controls and exercises this responsibility through the Audit and Finance Committee (the Committee) of the Board. The Committee is composed of members who are neither officers nor employees of the Bank and who are financially literate. The Committee is therefore qualified to review the Bank's annual financial statements and to recommend their approval by the Board of Directors. The Committee meets with management, the Chief Internal Auditor and the Bank's independent auditors who are appointed by Governor-in-Council. The Committee has established processes to evaluate the independence of the Bank's independent auditors and oversees all services provided by them. The Committee has a duty to review the adoption of, and changes in, accounting principles and procedures that have a material effect on the financial statements, and to review and assess key management judgments and estimates material to the reported financial information.

These financial statements have been audited by the Bank's independent auditors, PricewaterhouseCoopers LLP and Ernst & Young LLP, and their report is presented herein. The independent auditors have full and unrestricted access to the Committee to discuss their audit and related findings.

Stephen S. Poloz,
Governor

Carmen Vierula, CPA, CA,
Chief Financial Officer and Chief Accountant

Ottawa, Canada
February 15, 2018

Independent Auditors' Report

To the Minister of Finance, registered shareholder of the Bank of Canada (the Bank)

We have audited the accompanying financial statements of the Bank, which comprise the statement of financial position as at December 31, 2017, and the statements of net income and comprehensive income, changes in equity, and cash flows for the year then ended, and related notes, which comprise a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform an audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Bank as at December 31, 2017, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

PricewaterhouseCoopers LLP

Chartered Professional Accountants
Licensed Public Accountants

Ernst + Young LLP

Chartered Professional Accountants
Licensed Public Accountants

Ottawa, Canada
February 15, 2018

Statement of Financial Position

As at December 31 (in millions of Canadian dollars)

	Note	2017	2016
Assets			
Cash and foreign deposits	3, 4, 7	14.6	19.3
Loans and receivables	3, 5, 7		
Securities purchased under resale agreements		9,478.5	8,277.0
Other receivables		4.5	5.2
		9,483.0	**8,282.2**
Investments	3, 6, 7		
Government of Canada treasury bills		18,370.4	16,791.8
Government of Canada bonds		82,087.0	79,845.9
Other investments		403.6	395.0
		100,861.0	**97,032.7**
Property and equipment	8	569.0	570.7
Intangible assets	9	40.1	36.2
Other assets	10	132.6	164.9
Total Assets		**111,100.3**	**106,106.0**
Liabilities and Equity			
Bank notes in circulation	7, 11	85,855.9	80,478.6
Deposits	3, 7, 12		
Government of Canada		21,454.2	20,228.4
Members of Payments Canada		500.3	499.7
Other deposits		2,274.3	2,103.4
		24,228.8	**22,831.5**
Securities sold under repurchase agreements	3, 7, 13	-	1,500.0
Other liabilities	3, 7, 14	520.0	808.9
Total Liabilities		**110,604.7**	**105,619.0**
Commitments, contingencies and guarantees	16, 17		
Equity	18	495.6	487.0
Total Liabilities and Equity		**111,100.3**	**106,106.0**

Stephen S. Poloz,
Governor

Carmen Vierula, CPA, CA,
Chief Financial Officer and Chief Accountant

Derek D. Key,
Lead Director, Board of Directors

Phyllis Clark,
Chair, Audit and Finance Committee

(See accompanying notes to the financial statements.)

Statement of Net Income and Comprehensive Income

For the year ended December 31 (in millions of Canadian dollars)

	2017	2016
Income		
Interest revenue		
Investments	1,603.4	1,605.6
Securities purchased under resale agreements	52.4	37.4
Other sources	0.3	0.2
	1,646.1	**1,643.2**
Interest expense		
Deposits	(187.4)	(122.7)
Net interest revenue	**1,468.7**	**1,520.5**
Dividend revenue	5.1	3.6
Other revenue	5.7	7.2
Total income	**1,479.5**	**1,531.3**
Expenses		
Staff costs	253.6	228.1
Bank note research, production and processing	53.1	52.2
Premises costs	21.5	42.1
Technology and telecommunications	47.6	38.0
Depreciation and amortization	51.9	35.6
Other operating expenses	76.1	70.4
Total expenses	**503.8**	**466.4**
Net Income	**975.7**	**1,064.9**
Other Comprehensive Income (Loss)		
Items that will not be reclassified to net income		
Remeasurements of the net defined-benefit liability/asset	(37.1)	4.1
Items that may subsequently be reclassified to net income		
Change in fair value of available-for-sale financial assets	(0.9)	(11.4)
Other comprehensive income (loss)	**(38.0)**	**(7.3)**
Comprehensive Income	**937.7**	**1,057.6**

(See accompanying notes to the financial statements.)

Statement of Changes in Equity

For the year ended December 31 (in millions of Canadian dollars)

	Note	Share capital	Statutory reserve	Special reserve	Available-for-sale reserve	Retained earnings	Total
Balance as at January 1, 2017		5.0	25.0	100.0	357.0	-	**487.0**
Comprehensive Income for the Year							
Net income		-	-	-	-	975.7	**975.7**
Remeasurements of the net defined-benefit liability/asset	15	-	-	-	-	(37.1)	**(37.1)**
Change in fair value of BIS shares	3	-	-	-	8.6	-	**8.6**
Change in fair value of Government of Canada treasury bills		-	-	-	-	(9.5)	**(9.5)**
		-	**-**	**-**	**8.6**	**929.1**	**937.7**
Surplus for the Receiver General for Canada	14, 18	-	-	-	-	(929.1)	**(929.1)**
Balance as at December 31, 2017		**5.0**	**25.0**	**100.0**	**365.6**	**-**	**495.6**

	Note	Share capital	Statutory reserve	Special reserve	Available-for-sale reserve	Retained earnings	Total
Balance as at January 1, 2016		5.0	25.0	100.0	368.2	-	**498.2**
Comprehensive Income for the Year							
Net income		-	-	-	-	1,064.9	**1,064.9**
Remeasurements of the net defined-benefit liability/asset	15	-	-	-	-	4.1	**4.1**
Change in fair value of BIS shares	3	-	-	-	(10.2)	-	**(10.2)**
Change in fair value of Government of Canada treasury bills		-	-	-	(1.0)	(0.2)	**(1.2)**
		-	**-**	**-**	**(11.2)**	**1,068.8**	**1,057.6**
Surplus for the Receiver General for Canada	14, 18	-	-	-	-	(1,068.8)	**(1,068.8)**
Balance as at December 31, 2016		**5.0**	**25.0**	**100.0**	**357.0**	**-**	**487.0**

(See accompanying notes to the financial statements.)

Statement of Cash Flows

For the year ended December 31 (in millions of Canadian dollars)

	2017	2016
Cash Flows from Operating Activities		
Interest received	1,695.7	1,746.4
Dividends received	5.1	3.6
Other revenue received	8.7	9.8
Interest paid	(187.8)	(122.7)
Payments to or on behalf of employees and to suppliers and to members of Payments Canada	(481.1)	(380.3)
Net increase (decrease) in deposits	1,397.3	(1,761.4)
Acquisition of securities purchased under resale agreements—overnight repo	(14,590.2)	(56,389.0)
Proceeds from securities purchased under resale agreements—overnight repo	14,590.2	57,389.0
Proceeds from securities sold under repurchase agreements	7,800.1	1,500.0
Repayments of securities sold under repurchase agreements	(9,300.1)	-
Net cash provided by operating activities	**937.9**	**1,995.4**
Cash Flows from Investing Activities		
Net increase (decrease) in Government of Canada treasury bills	(1,562.6)	1,418.5
Purchases of Government of Canada bonds	(19,084.9)	(18,504.0)
Proceeds from maturity of Government of Canada bonds	16,775.0	14,330.0
Acquisition of securities purchased under resale agreements—term repo	(72,579.8)	(68,602.8)
Proceeds from securities purchased under resale agreements—term repo	71,381.7	65,412.5
Additions of property and equipment	(43.0)	(165.3)
Additions of intangible assets	(11.1)	(7.9)
Net cash used in investing activities	**(5,124.7)**	**(6,119.0)**
Cash Flows from Financing Activities		
Net increase in bank notes in circulation	5,377.3	4,981.7
Remittance of surplus to the Receiver General for Canada	(1,193.7)	(849.5)
Net cash provided by financing activities	**4,183.6**	**4,132.2**
Effect of exchange rate changes on foreign currency	(1.5)	(0.5)
Increase (decrease) in cash and foreign deposits	**(4.7)**	**8.1**
Cash and foreign deposits, beginning of year	19.3	11.2
Cash and Foreign Deposits, end of year	**14.6**	**19.3**

(See accompanying notes to the financial statements.)

Notes to the Financial Statements of the Bank of Canada

For the year ended December 31, 2017

1. The business of the Bank of Canada

The Bank of Canada (the Bank) is the nation's central bank. The Bank is a corporation established under the *Bank of Canada Act*, is wholly owned by the Government of Canada and is exempt from income taxes. The Bank does not offer banking services to the public.

The address of the Bank's registered head office is 234 Wellington Street, Ottawa, Ontario.

The Bank conforms to the financial reporting requirements of the *Bank of Canada Act* as prescribed in the Bank's bylaws, which require that the Bank's financial statements be prepared in accordance with Generally Accepted Accounting Principles as set out in the Chartered Professional Accountants of Canada (CPA Canada) Handbook. Consistent with CPA Canada guidance, the Bank is a government business enterprise as defined by the Canadian Public Sector Accounting Standards (PSAS) and, as such, adheres to the standards applicable to publicly accountable enterprises. In compliance with this requirement, the Bank has developed accounting policies in accordance with International Financial Reporting Standards (IFRS).

The Bank's mandate under the *Bank of Canada Act* is to promote the economic and financial welfare of Canada. The Bank's activities and operations are undertaken in support of this mandate and not with the objective of generating revenue or profits. The Bank's four core areas of responsibility are the following:

- **Monetary Policy**: The Bank conducts monetary policy to preserve the value of money by keeping inflation low, stable and predictable.
- **Financial System**: The Bank promotes safe, sound and efficient financial systems, within Canada and internationally, and conducts transactions in financial markets in support of these objectives.
- **Funds Management**: The Bank provides funds-management services for the Government of Canada, the Bank itself and other clients. For the government, the Bank provides treasury management services and administers and advises on the public debt and foreign exchange reserves.
- **Currency**: The Bank designs, issues and distributes Canada's bank notes, oversees the note distribution system and ensures a supply of quality bank notes that are readily accepted and secure against counterfeiting.

The corporate administration function supports the management of the Bank's human resources, operations and strategic initiatives, as well as the stewardship of financial, physical, information and technology assets.

The Bank has the exclusive right to issue Canadian bank notes, which are the most significant liability on the Bank's balance sheet. The Bank invests the proceeds from the issuance of bank notes into Government of Canada securities, which are acquired on a non-competitive basis. These assets enable the Bank to execute its responsibilities for the monetary policy and financial system functions.

Interest income derived from Government of Canada securities is the Bank's primary source of revenue. The income generated from the Government of Canada treasury bills and Government of Canada bonds that back the bank notes in circulation (net of bank note production and distribution costs) is referred to as "seigniorage." It provides a stable and constant source of funding for the Bank's operations, which enables the Bank to function independently of government appropriations. A portion of this revenue is used to fund the Bank's operations and reserves, and the remaining net income is remitted to the Receiver General for Canada in accordance with the requirements of the *Bank of Canada Act*.

2. Basis of preparation

Compliance with International Financial Reporting Standards

These financial statements have been prepared in accordance with IFRS as issued by the International Accounting Standards Board (IASB).

The Board of Directors approved the financial statements on February 15, 2018.

Fiscal-agent and custodial activities

Responsibility for the operational management of the Government of Canada's financial assets and liabilities is borne jointly by the Bank (as fiscal agent for the Government of Canada) and the Department of Finance Canada. In this fiscal-agent role, the Bank provides transactional and administrative support to the Government of Canada in certain areas, consistent with the requirements of section 24 of the *Bank of Canada Act*. The Bank does not bear the risks and rewards of those activities conducted in its role as fiscal agent. The assets, liabilities, expenditures and revenues relating to this support are the Government of Canada's and are not included in the financial statements of the Bank.

Securities safekeeping and other custodial services are provided to foreign central banks, international organizations and other government-related entities. Under the terms governing these services, the Bank is indemnified against losses. Any assets and income that are managed under these services are excluded from the Bank's financial statements, as they are not assets or income of the Bank.

Measurement base

The financial statements have been prepared on a historical cost basis, except for the following items:

- financial instruments classified as held-to-maturity (HTM), which are measured at amortized cost using the effective interest method;
- financial assets classified as available-for-sale (AFS), which are measured at fair value through other comprehensive income (FVOCI); and
- the net defined-benefit liability/asset of employee benefit plans, which is recognized as the net of the fair value of plan assets and the present value of the defined-benefit obligation.

Functional and presentation currency

The Bank's functional and presentation currency is the Canadian dollar. The amounts in the notes to the financial statements of the Bank are in millions of Canadian dollars, unless otherwise stated.

Significant accounting policies

This section contains the Bank's accounting policies that relate to the financial statements as a whole.

When an accounting policy is applicable to a specific note to the financial statements, the policy and related disclosures are provided within that note as identified in the table below, except where it is not presented as part of Note 3 *Financial instruments*.

Note	Topic	Page	Note	Topic	Page
8	Property and equipment	100	15	Employee benefits	107
9	Intangible assets	102	16	Leases	113
10	Other assets	104	17	Commitments, contingencies and guarantees	113
11	Bank notes in circulation	105			
14	Other liabilities	106	19	Related parties	117

There were no new or amended standards adopted by the Bank during 2017 that had a significant impact on its financial statements.

Revenue recognition

- Interest revenue is recognized in net income using the effective interest method.
- Dividend revenue from the Bank's investment in the Bank for International Settlements (BIS shares) is recognized as dividends are declared. In the current year, *Dividend revenue* was reclassified as a separate line item within the Statement of Net Income and Comprehensive Income to better reflect the nature of the revenue stream. Comparative information was updated accordingly.
- Realized gains and losses on the sale of AFS assets, if any, are recognized in net income as a reclassification from other comprehensive income at the time of sale and are calculated as the difference between proceeds and the amortized cost at the transaction date.
- Other revenue is recognized in net income as it is earned, when it can be reliably measured and when collectability is probable.

Foreign currencies

Investment income and expenses denominated in foreign currencies are translated into Canadian dollars at the exchange rate in effect at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated into Canadian dollars at the exchange rate prevailing at the end of the reporting period. The resulting foreign exchange gains and losses are included in *Other revenue*. Gains or losses on equity investments classified as AFS, including those related to the exchange rate, are recognized in other comprehensive income .

Impairment

Impairment of financial assets

The Bank assesses whether there is objective evidence that a financial asset or group of assets is impaired at the end of each reporting period. Once impaired, financial assets carried at amortized cost are remeasured at the net recoverable amount, with the amount of impairment recognized in net income. Unrealized losses on impaired AFS financial assets are recognized in net income at the time of impairment.

Impairment of non-financial assets

Non-financial assets, including *Property and equipment* and *Intangible assets*, are reviewed annually for indicators of impairment, and whenever events or changes in circumstances indicate that the carrying amount exceeds their recoverable amount.

Intangible assets under development are assessed for impairment on an annual basis.

Key accounting judgments, estimates and assumptions

The preparation of the financial statements requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses, and other related information.

The Bank based its assumptions and estimates on the information available when these financial statements were prepared. Existing circumstances and assumptions about future developments may change, however, in response to market fluctuations or circumstances that are beyond the control of the Bank. In such cases, the impact will be recognized in the financial statements of a future reporting period.

Judgments, estimates and underlying assumptions are reviewed for appropriateness and consistent application on an ongoing basis. Revisions to accounting estimates are recognized in the reporting period in which the estimates are revised and in any future reporting periods affected.

Significant judgment and estimates are used in the measurement of financial instruments (Note 3) and employee benefits (Note 15).

Future changes to IFRS

The following new standards issued by the IASB were assessed as having a possible effect on the Bank in the future.

IFRS 9 Financial Instruments (IFRS 9)

In July 2014, the IASB issued the final version of IFRS 9, which brings together the classification and measurement, impairment and hedge accounting phases of the IASB's project to replace IAS 39 *Financial Instruments: Recognition and Measurement* (IAS 39).

IFRS 9 eliminates the existing financial asset categories and adopts a principles-based approach to the classification of financial assets, which is driven by a financial instrument's cash-flow characteristics and the business model in which it is held.

IFRS 9 also introduces an expected loss impairment model for all financial assets not measured at fair value through profit or loss (FVTPL). The model has three stages:

(i) on initial recognition, 12-month expected credit losses are recognized in profit or loss, and interest revenue is calculated on the gross carrying amount of the asset;

(ii) if credit risk increases significantly from initial recognition, lifetime expected credit losses are recognized in profit or loss, and interest revenue is calculated on the gross carrying amount of the asset; and

(iii) when a financial asset is considered credit-impaired, interest revenue is calculated based on the net carrying amount of the asset (gross carrying amount less the loss allowance), rather than on its gross carrying amount.

Finally, IFRS 9 includes a new hedge accounting model, together with corresponding disclosures about risk management activities for those applying hedge accounting. The new model represents a substantial overhaul of hedge accounting that will enable entities to better reflect their risk management activities in their financial statements. The most significant changes apply to those entities that hedge non-financial risk. These changes are not applicable to the Bank, since the Bank does not engage in hedging activities.

The mandatory effective date for the adoption of IFRS 9 is January 1, 2018, as determined by the IASB, although early adoption was permitted. The Bank has determined that IFRS 9 will result in a change to the classification and measurement of Government of Canada treasury bills from FVOCI to amortized cost, and the transition is not expected to have a significant impact on the Bank's financial statements. The Bank has also determined that the changes to accounting for financial instrument impairment are not expected to have a significant impact on the Bank's financial statements. As such, the Bank has opted not to restate its comparative information on adoption of IFRS 9. Additional disclosures related to the Bank's financial instrument accounting policies, impairment methodologies and financial risk assessments will be required.

IFRS 15 Revenue from Contracts with Customers (IFRS 15)

IFRS 15, as issued in May 2014, relates to the recognition of revenue that applies to all contracts with customers (except for contracts that are within the scope of the standards on leases, insurance contracts and financial instruments).

IFRS 15 establishes a five-step model to apply to revenue from contracts and extensive requirements for revenue disclosure. The standard also addresses the recognition and measurement of gains and losses on the sale of some non-financial assets that are not an output of the entity's ordinary activities.

The mandatory effective date for the adoption of IFRS 15 is January 1, 2018, as determined by the IASB, although early adoption is permitted. The Bank has determined that IFRS 15 will not have a significant impact on the Bank's financial statements.

IFRS 16 Leases (IFRS 16)

In January 2016, the IASB issued IFRS 16, which provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements of both lessees and lessors. It supersedes IAS 17 *Leases* (IAS 17) and its associated interpretive guidance. Significant changes have been made to lessee accounting since the distinction between operating and finance leases was eliminated, and thus, assets and liabilities must be recognized for all leases (subject to limited exceptions for short-term leases and leases of low-value assets). IFRS 16 does not include significant changes to the requirements for lessors.

IFRS 16 is effective January 1, 2019, with earlier application permitted for companies that have also early-adopted IFRS 15. The Bank has made a preliminary assessment that IFRS 16 will not have a significant impact on the Bank's financial statements.

3. Financial instruments

The Bank's financial instruments consist of the following:

- cash and foreign deposits,
- loans and receivables,
- investments,
- bank notes in circulation,
- deposits,
- securities sold under repurchase agreements (SSRAs), and
- other liabilities, which include the net defined-benefit liability/asset for pension benefit plans and other employee benefit plans, and lease contracts.

Bank notes in circulation, the net defined-benefit liability/asset for pension benefit plans and other employee benefit plans, and lease contracts are excluded from this note and are discussed in Note 11, Note 15 and Note 16, respectively.

Accounting policy

The Bank accounts for all financial instruments using settlement-date accounting. Financial assets and liabilities are recorded when the Bank becomes party to the contractual provisions of the instruments.

Financial instruments are classified based on their nature and business purpose into one of the following categories:

- Financial assets
  - cash and cash equivalents
  - loans and receivables
  - held-to-maturity (HTM)
  - available-for-sale (AFS)
- Financial liabilities
  - financial liabilities at amortized cost

Financial instruments carried at FVTPL are initially recognized at fair value, with any transaction costs expensed as incurred. All other financial instruments are initially recognized at fair value plus transaction costs, if any. See the "Supporting information" section for details on how the Bank determines the fair value of its financial instruments.

The Bank derecognizes a financial asset when it considers that substantially all the risks and rewards of the asset have been transferred or when the contractual rights to the cash flows of the financial asset expire. The Bank derecognizes financial liabilities when the Bank's obligations are discharged, are cancelled or expire.

Subsequent to initial recognition and on derecognition, financial instruments are measured based on their classification as described in the table below.

Financial Instrument Categories	Subsequent Measurement	Derecognition
Financial Assets		
Cash and cash equivalents ▪ Cash and foreign deposits	FVTPL. Unrealized changes in the fair value, if any, are recognized in net income.	Fair value gains or losses on disposal are recognized in net income.
Loans and receivables ▪ Securities purchased under resale agreements (SPRAs) ▪ Advances to members of Payments Canada ▪ Other receivables **HTM** ▪ Government of Canada bonds	Amortized cost using the effective interest method,[1] less any impairment losses. Impairment is recognized in net income. Any subsequent reversals of a previous impairment would be recognized in net income. Any subsequent decline in the fair value below the carrying amount at the impairment date would represent a further impairment to be recognized in net income.	The difference between the financial asset's carrying amount and the sum of the consideration received and receivable is recognized in net income.

Financial Instrument Categories	Subsequent Measurement	Derecognition
Financial Assets		
AFS ▪ Government of Canada T-bills ▪ Other investments (BIS shares)	FVOCI. Unrealized changes in the fair value are recognized in other comprehensive income and accumulated in the available-for-sale reserve in *Equity*. Impairment is recognized in net income. Any subsequent reversals of a previous impairment would be recognized in other comprehensive income for equity instruments and in net income for debt instruments. Any subsequent decline in the fair value below the carrying amount at the impairment date would represent a further impairment to be recognized in net income.	The cumulative unrealized gain or loss previously recognized in other comprehensive income is reclassified from *Equity* to net income.
Financial Liabilities		
Financial liabilities at amortized cost ▪ Deposits ▪ SSRAs ▪ Other liabilities	Amortized cost using effective interest method.[1]	The difference between the financial liability's carrying amount and the sum of the consideration paid and payable (including any non-cash assets transferred or liabilities assumed) is recognized in net income.

1 The effective interest method uses the rate inherent in a financial instrument that discounts the estimated future cash flows over the expected life of the financial instrument in order to recognize interest on a constant-yield basis.

Accounting estimates and judgments

Judgment is required when determining if objective evidence of impairment exists, and if so, the amount of impairment. In making this judgment, the Bank evaluates the duration and extent to which the fair value of an investment is less than its cost at each reporting period, among other factors.

Judgment is also required in estimating the fair values of financial instruments. Estimated fair values for financial instruments are designed to approximate amounts for which the instruments could be exchanged in a current arm's-length transaction between knowledgeable, willing parties.

Financial instruments measured at fair value are classified using a fair value hierarchy that reflects the significance of the inputs used in making the measurements:

Level 1 unadjusted quoted prices in active markets for identical assets or liabilities, which represent actual and regularly occurring arm's-length market transactions

Level 2 inputs other than quoted prices included in Level 1, which are observable for the assets or liabilities either directly (e.g., prices for similar instruments, prices from inactive markets) or indirectly (e.g., interest rates, credit spreads)

Level 3 unobservable inputs for the assets or liabilities that are not based on observable market data due to inactive markets (e.g., market participant assumptions)

The fair value hierarchy requires the use of observable market inputs wherever such inputs exist. In measuring fair value, a financial instrument is classified at the lowest level of the hierarchy for which a significant input has been considered.

The tables below explain the valuation methods used to determine the fair value of each financial instrument and its associated level in the fair value hierarchy. There were no changes to valuation methodologies during the year.

Financial Instruments Carried at Fair Value	Valuation Method
Cash and foreign deposits	Fair value is estimated to be equal to their face value due to their nature as cash.
Government of Canada treasury bills	Quoted market prices (Level 1)
BIS shares	Significant unobservable inputs (Level 3) Estimated as 70% of the Bank's interest in the net asset value of the BIS at the reporting date. This is consistent with the methodology applied by the BIS for all share repurchases since the 1970s, and was further endorsed in a decision by the International Court at The Hague relating to a share repurchase by the BIS in 2001 (the last share repurchase conducted by the BIS). The Bank expects the value of the BIS shares to fluctuate over time in conjunction with the strength of the BIS balance sheet and exchange rates.

Financial Instruments Carried at Amortized Cost	Valuation Method
SPRAs, other receivables, deposits and financial liabilities	Carrying amount (approximation to fair value assumed due to their nature as short-term or due on demand)
Government of Canada bonds	Quoted market prices (Level 1)

Supporting information

Financial instruments carried at fair value

The following table shows the fair value of the Bank's financial assets, classified in accordance with the fair value hierarchy described above.

As at December 31, 2017	Level 1	Level 2	Level 3	Total
Government of Canada treasury bills	18,370.4	-	-	**18,370.4**
BIS shares	-	-	403.6	**403.6**
	18,370.4	-	**403.6**	**18,774.0**

As at December 31, 2016	Level 1	Level 2	Level 3	Total
Government of Canada treasury bills	16,791.8	-	-	**16,791.8**
BIS shares	-	-	395.0	**395.0**
	16,791.8	-	**395.0**	**17,186.8**

There were no transfers of amounts between levels in 2017.

The following table reconciles the estimated fair value of the BIS shares determined using Level 3 fair value measurements:

As at December 31	2017	2016
Opening balance at beginning of year	395.0	405.2
Change in fair value recorded through other comprehensive income	8.6	(10.2)
Closing balance at end of year	**403.6**	**395.0**

Financial instruments not carried at fair value

The fair value of Government of Canada bonds was $84,405.6 million at December 31, 2017 ($83,528.5 million at December 31, 2016).

4. Cash and foreign deposits

Cash and foreign deposits is composed of cash on hand and highly liquid demand deposits in foreign currencies with other central banks or international financial institutions. Included in the total balance of $14.6 million ($19.3 million at December 31, 2016) was Can$13.8 million of foreign deposits (Can$18.2 million at December 31, 2016).

The Bank's policies on classifying and measuring financial instruments are discussed in Note 3, and related financial risks are discussed in Note 7.

5. Loans and receivables

Loans and receivables is composed primarily of SPRAs and, if any, advances to members of Payments Canada. These transactions are obligations of Payments Canada members and are fully collateralized in accordance with publicly disclosed collateral eligibility and margin requirements. The remaining amount is composed primarily of trade receivables.

Securities purchased under resale agreements is composed of overnight repurchase (repo) operations and term repo operations, in which the Bank purchases securities from designated counterparties with an agreement to sell them back at a predetermined price on an agreed transaction date. The overnight repo matures the next business day and is used to support the effective implementation of monetary policy by withdrawing intraday liquidity, thereby reinforcing the Bank's target for the overnight rate. The term repo generally matures 1 to 90 business days after issuance and is used for balance sheet management, to promote the orderly functioning of Canadian financial markets and to provide the Bank with information on conditions in short-term funding markets. Balances outstanding as at December 31, 2017, consist of agreements with original terms to maturity ranging from 17 to 84 days (from 18 to 85 days at December 31, 2016).

Advances to members of Payments Canada are collateralized liquidity loans made under the Bank's Standing Liquidity Facility to facilitate overnight settlement in the Large Value Transfer System (LVTS). These advances mature the next business day. Interest on overnight advances is calculated at the Bank Rate, which is the rate of interest that the Bank charges on one-day loans to major financial institutions. Collateral pledged for these advances comes from a pool of eligible collateral in which the Bank has the discretion to choose the highest-quality collateral to cover any advances granted. As at December 31, 2017, there were no advances to members of Payments Canada ($nil at December 31, 2016).

The Bank's policies on classifying and measuring financial instruments are discussed in Note 3, and related financial risks are discussed in Note 7.

6. Investments

The Bank's investments are composed of Government of Canada treasury bills, Government of Canada bonds and other investments. The Bank's investments are predominantly based on its balance sheet needs under its framework for financial market operations.

Other investments is composed solely of the Bank's holdings of 9,441 BIS shares (9,441 BIS shares at December 31, 2016), which are held as part of its functions as a central bank and are long-standing in nature. Ownership of BIS shares is limited to central banks, and new shares can be acquired only following an invitation to subscribe extended by the BIS Board of Directors. The shares are non-transferable unless prior written consent is obtained from the BIS.

The Bank also operates a Securities-Lending Program to support the liquidity of Government of Canada securities by providing the market with a secondary and temporary source of these securities. These loans are fully collateralized and are generally one business day in duration. Securities loaned under the Securities-Lending Program continue to be accounted for as *Investments* for the duration of the loan period. Lending fees charged by the Bank on these transactions are included in *Other revenue* at the loan maturity date. As at December 31, 2017, there were no loaned securities in the Bank's investments ($nil at December 31, 2016).

The Bank's policies on classifying and measuring financial instruments are discussed in Note 3, and related financial risks are discussed in Note 7.

7. Financial risk management

The Bank maintains a comprehensive risk management and control framework to manage its risks. The Executive Council oversees enterprise risk management and the implementation of sound management processes to safeguard the Bank. The Board of Directors has an oversight role in the Bank's performance of risk management.

The Bank is exposed to financial risks associated with its financial instruments, including credit risk, market risk and liquidity risk. The Financial Risk Office monitors and reports on the financial risks related to the Bank's Statement of Financial Position.

The following is a description of those risks and how the Bank manages its exposure to them.

Credit risk

Credit risk is the possibility of loss due to the failure of a counterparty or guarantor to meet payment obligations in accordance with agreed-upon terms.

The Bank is exposed to credit risk through its cash and foreign deposits, investments and advances to members of Payments Canada, and through market transactions conducted in the form of SPRAs and loans of securities. The maximum exposure to credit risk is estimated to be the carrying value of those items. The Bank is also exposed to credit risk through its guarantee of the LVTS and through the execution of foreign currency contracts. The maximum exposure under guarantees and foreign currency contracts is discussed in Note 17.

There are no past due or impaired amounts.

Concentration of credit risk

The Bank's investment portfolio represents 91% of the carrying value of its total assets (91% in 2016). The credit risk associated with the Bank's investment portfolio is low because the securities held are primarily direct obligations of the Government of Canada, which holds a credit rating of AAA and has no history of default.

SPRAs represent 9% of the carrying value of the Bank's total assets (8% at December 31, 2016). The fair value of collateral pledged to the Bank against these financial instruments at the end of the reporting period is presented below.

	2017		2016	
As at December 31	**$**	**%**	**$**	**%**
Securities issued or guaranteed by the Government of Canada	2,414.9	24.5	878.4	10.1
Securities issued or guaranteed by a provincial government	7,444.0	75.5	7,796.4	89.9
Total fair value of collateral pledged to the Bank	**9,858.9**	**100.0**	**8,674.8**	**100.0**
Carrying value of advances to members of Payments Canada	-	-	-	-
Carrying value of SPRAs	9,478.5	100.0	8,277.0	100.0
Carrying value of collateralized securities at year-end	**9,478.5**	**100.0**	**8,277.0**	**100.0**
Collateral as a percentage of carrying value at year-end		**104.0**		**104.8**

In the unlikely event of a counterparty default, collateral can be liquidated to offset credit exposure. Collateral is taken in accordance with the Bank's publicly disclosed eligibility criteria and margin requirements, which are accessible on its website. Strict eligibility criteria are set for all collateral, and the credit quality of collateral is managed through a set of restrictions based on asset type, term to maturity and credit attributes, including ratings of the securities pledged.

Market risk

Market risk is the potential for adverse changes in the fair value or future cash flows of a financial instrument due to changes in market variables, such as interest rates, foreign exchange rates and market prices. It is composed of interest rate risk, currency risk and other price risk.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in interest rates.

The Bank's exposure to interest rate risk arises through fluctuations in the fair value of its investment in Government of Canada treasury bills, which are short term, and from fluctuations in the future cash flows of cash and foreign deposits held by the Bank and deposits held at the Bank by other institutions, since these instruments are subject to variable interest rates. The remainder of the Bank's financial assets and liabilities have either fixed interest rates or are non-interest-bearing.

The numbers below show the effect at December 31 of an (increase)/decrease in interest rates of 25 basis points on the fair value of the Government of Canada treasury bill portfolio and on other comprehensive income.

As at December 31	2017	2016
Government of Canada treasury bills	**(16.7) / 15.5**	(15.2) / 15.0

The numbers below show the effect as at December 31 of an increase/(decrease) in interest rates of 25 basis points on the interest paid on Government of Canada deposits, which represent substantially all of the Bank's interest rate risk exposure on financial liabilities.

As at December 31	2017	2016
Interest expense on Government of Canada deposits	**58.1 / (58.1)**	58.0 / (58.0)

Currency risk

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. Given the small size of the Bank's net foreign currency exposure relative to its total assets, currency risk is not considered significant.

The Bank is exposed to currency risk primarily by holding shares in the BIS. These shares are denominated in Special Drawing Rights (SDRs). The SDR serves as the unit of account for the International Monetary Fund (IMF), and its value is based on a "basket" of five major currencies: the euro, the US dollar, the British pound, the Japanese yen and the Chinese renminbi. SDRs are translated into Canadian-dollar equivalents at the rates prevailing on the date when the fair value is determined.

Other price risk

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market prices (other than those arising from changes in interest and exchange rates).

The Bank is exposed to other price risk through its investment in the BIS. As discussed in Note 3, the fair value of these shares is estimated on the basis of the net asset value of the BIS, less a discount of 30%. Accordingly, the fair value fluctuations of these shares reflect movements in the net asset value of the BIS and exchange rates as discussed above. The other price risk associated with BIS shares is incidental to the reason for holding them, as discussed in Note 6.

Liquidity risk

Liquidity risk is the potential for loss if the Bank is unable to meet its financial obligations as they fall due. Liabilities with no fixed maturity include bank notes in circulation and Government of Canada deposits, with the remaining liabilities (deposits of members of Payments Canada, SSRAs (if any) and other financial liabilities) due within 12 months. The Bank is also exposed to liquidity risk through its guarantee of the LVTS, as discussed in Note 17.

Historical experience has shown that bank notes in circulation provide a stable source of long-term funding for the Bank. Government of Canada deposits are deposits held in the Bank's capacity as the Government of Canada's fiscal agent. As a counterpart to these liabilities with no fixed maturity, the Bank holds a portfolio of highly liquid securities, composed primarily of Government of Canada treasury bills, Government of Canada bonds and SPRAs. In the event of an unexpected redemption of bank notes or a significant withdrawal from the Government of Canada's deposit for the prudential liquidity-management plan, the Bank can settle the obligation by means of several tools, including the sale of investments backing those liabilities.

Also, as the nation's central bank, the Bank is the ultimate source of liquid funds to the Canadian financial system and has the power and operational ability to create Canadian-dollar liquidity in unlimited amounts at any time. This power is exercised within the Bank's commitment to keeping inflation low, stable and predictable.

The following table presents a maturity analysis of the Bank's financial assets and liabilities. The balances in this table do not correspond to the balances in the Statement of Financial Position since the table presents all cash flows on an undiscounted basis.

As at December 31, 2017	No fixed maturity	Within 12 months	1 to 5 years	Over 5 years	Total
Financial Assets					
Cash and foreign deposits	14.6	-	-	-	**14.6**
Loans and receivables	-	9,495.6	-	-	**9,495.6**
Investments					
Government of Canada treasury bills	-	18,450.0	-	-	**18,450.0**
Government of Canada bonds	-	17,139.3	43,069.8	34,930.4	**95,139.5**
BIS shares	403.6	-	-	-	**403.6**
	418.2	**45,084.9**	**43,069.8**	**34,930.4**	**123,503.3**
Financial Liabilities					
Bank notes in circulation	85,855.9	-	-	-	**85,855.9**
Deposits					
Government of Canada	21,454.2	-	-	-	**21,454.2**
Members of Payments Canada	-	500.3	-	-	**500.3**
Other deposits	2,274.3	-	-	-	**2,274.3**
Securities sold under repurchase agreements	-	-	-	-	**-**
Other financial liabilities	-	277.3	-	-	**277.3**
	109,584.4	**777.6**	**-**	**-**	**110,362.0**
Net maturity difference	**(109,166.2)**	**44,307.3**	**43,069.8**	**34,930.4**	**13,141.3**

As at December 31, 2016	No fixed maturity	Within 12 months	1 to 5 years	Over 5 years	Total
Financial Assets					
Cash and foreign deposits	19.3	-	-	-	**19.3**
Loans and receivables	-	8,288.0	-	-	**8,288.0**
Investments					
Government of Canada treasury bills	-	16,825.0	-	-	**16,825.0**
Government of Canada bonds	-	18,240.6	39,693.0	35,023.1	**92,956.7**
BIS shares	395.0	-	-	-	**395.0**
	414.3	**43,353.6**	**39,693.0**	**35,023.1**	**118,484.0**
Financial Liabilities					
Bank notes in circulation	80,478.6	-	-	-	**80,487.6**
Deposits					
Government of Canada	20,228.4	-	-	-	**20,228.4**
Members of Payments Canada	-	499.7	-	-	**499.7**
Other deposits	2,103.4	-	-	-	**2,103.4**
Securities sold under repurchase agreements	-	1,500.0	-	-	**1,500.0**
Other financial liabilities	-	598.7	-	-	**598.7**
	102,810.4	**2,598.4**	**-**	**-**	**105,408.8**
Net maturity difference	**(102,396.1)**	**40,755.2**	**36,693.0**	**35,023.1**	**13,075.2**

8. Property and equipment

Property and equipment consists of land, buildings, computer equipment, other equipment and related projects in progress.

Accounting policy

Property and equipment is measured at cost less accumulated depreciation, except for land, which is not depreciated, and is net of any related impairment losses. Projects in progress are measured at cost but are not depreciated until the asset is available for use. Cost includes expenditures that are directly attributable to the acquisition or construction of the asset.

When major components of an item of property and equipment have different useful lives, they are accounted for as separate items of property and equipment. Upon replacing a significant part of an item of property and equipment, the carrying amount of the replaced part is derecognized and any gain or loss is recognized in depreciation.

Depreciation is calculated using the straight-line method and is applied over the estimated useful lives of the assets. The estimated useful lives and the depreciation method are reviewed at the end of each annual reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. The estimated useful lives for major asset classes are as follows:

Buildings	15 to 65 years
Computer equipment	3 to 10 years
Other equipment	5 to 20 years

Leasehold improvements (included in *Other equipment*) are depreciated over the lesser of their useful life or the term of the lease.

Accounting estimates and judgments

Judgment is required when determining

- which costs are directly attributable to a fixed asset (e.g., labour, overhead, etc.);
- when income or expenses derived from projects in progress are recognized as part of the asset cost;
- the appropriate useful life over which such costs should be depreciated; and
- whether existing assets are subject to impairment.

Supporting information

Carrying value of property and equipment

2017	Land and buildings	Computer equipment	Other equipment	Total
Cost				
Balances as at December 31, 2016	560.8	68.8	113.8	**743.4**
Additions	21.2	11.4	10.4	**43.0**
Disposals	(2.9)	(1.0)	(37.0)	**(40.9)**
Transfers to other asset categories	(0.6)	3.2	(5.3)	**(2.7)**
Balances as at December 31, 2017	**578.5**	**82.4**	**81.9**	**742.8**
Depreciation				
Balances as at December 31, 2016	(90.3)	(23.1)	(59.3)	**(172.7)**
Depreciation expense	(18.7)	(11.6)	(11.3)	**(41.6)**
Disposals	2.9	0.7	36.9	**40.5**
Transfers to other asset categories	-	-	-	**-**
Balances as at December 31, 2017	**(106.1)**	**(34.0)**	**(33.7)**	**(173.8)**
Carrying amounts				
Balances as at December 31, 2016	470.5	45.7	54.5	**570.7**
Balances as at December 31, 2017	**472.4**	**48.4**	**48.2**	**569.0**

2017	Land and buildings	Computer equipment	Other equipment	Total
Projects in progress				
Included in *Carrying amounts* at December 31, 2017	-	3.8	3.1	**6.9**
Commitments at December 31, 2017	0.9	13.6	1.1	**15.6**

The commitments at December 31, 2017, primarily consist of computer and mechanical equipment related to resiliency initiatives.

2016	Land and buildings	Computer equipment	Other equipment	Total
Cost				
Balances as at December 31, 2015	457.4	41.0	82.9	**581.3**
Additions	139.8	18.9	6.6	**165.3**
Disposals	-	(3.2)	-	**(3.2)**
Transfers to other asset categories	(36.4)	12.1	24.3	**-**
Balances as at December 31, 2016	**560.8**	**68.8**	**113.8**	**743.4**
Depreciation				
Balances as at December 31, 2015	(84.4)	(20.9)	(44.6)	**(149.9)**
Depreciation expense	(5.9)	(5.4)	(14.7)	**(26.0)**
Disposals	-	3.2	-	**3.2**
Transfers to other asset categories	-	-	-	**-**
Balances as at December 31, 2016	**(90.3)**	**(23.1)**	**(59.3)**	**(172.7)**
Carrying amounts				
Balances as at December 31, 2015	373.0	20.1	38.3	**431.4**
Balances as at December 31, 2016	**470.5**	**45.7**	**54.5**	**570.7**

2016	Land and buildings	Computer equipment	Other equipment	Total
Projects in progress				
Included in *Carrying amounts* at December 31, 2016	0.5	11.0	6.5	**18.0**
Commitments at December 31, 2016	17.1	0.1	16.4	**33.6**

9. Intangible assets

Intangible assets are identifiable non-monetary assets without physical substance that represent future economic benefits and are controlled by the Bank. The Bank's intangible assets consist of computer software that has been internally developed or externally acquired.

Accounting policy

Costs that are directly associated with the internal development of identifiable software are recognized as intangible assets if, in management's best estimate, the asset can technically be completed and will provide a future economic benefit to the Bank. Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates.

Computer software assets that are acquired by the Bank and have finite useful lives are measured at cost less accumulated amortization and impairment losses.

Amortization is calculated using the straight-line method and is applied over the estimated useful lives of the assets, which may vary from 3 to 15 years. The estimated useful life and amortization method are reviewed at the end of each annual reporting period, with the effect of any changes in the estimate being accounted for on a prospective basis.

Accounting estimates and judgments

Judgment is required when determining

- which costs related to non-tangible expenditures are eligible for capitalization;
- the appropriate useful life over which such costs should be amortized; and
- whether existing assets are subject to impairment.

Supporting information

Carrying value of intangible assets

2017	Internally generated software	Other software	Total
Cost			
Balances as at December 31, 2016	53.4	63.1	**116.5**
Additions	5.3	5.8	**11.1**
Disposals	-	-	**-**
Transfers to other asset categories	-	2.7	**2.7**
Balances as at December 31, 2017	**58.7**	**71.6**	**130.3**
Amortization			
Balances as at December 31, 2016	(42.5)	(37.8)	**(80.3)**
Amortization expense	(2.2)	(7.7)	**(9.9)**
Disposals	-	-	**-**
Transfers to other asset categories	-	-	**-**
Balances as at December 31, 2017	**(44.7)**	**(45.5)**	**(90.2)**
Carrying amounts			
Balances as at December 31, 2016	10.9	25.3	**36.2**
Balances as at December 31, 2017	**14.0**	**26.1**	**40.1**

2017	Internally generated software	Other software	Total
Projects in progress			
Included in *Carrying amounts* at December 31, 2017	7.7	3.7	**11.4**
Commitments at December 31, 2017	1.2	3.1	**4.3**

2016	Internally generated software	Other software	Total
Cost			
Balances as at December 31, 2015	49.1	64.1	**113.2**
Additions	4.3	3.6	**7.9**
Disposals	-	(4.6)	**(4.6)**
Transfers to other asset categories	-	-	-
Balances as at December 31, 2016	**53.4**	**63.1**	**116.5**
Amortization			
Balances as at December 31, 2015	(41.0)	(34.3)	**(75.3)**
Amortization expense	(1.5)	(8.1)	**(9.6)**
Disposals	-	4.6	**4.6**
Transfers to other asset categories	-	-	-
Balances as at December 31, 2016	**(42.5)**	**(37.8)**	**(80.3)**
Carrying amounts			
Balances as at December 31, 2015	8.1	29.8	**37.9**
Balances as at December 31, 2016	**10.9**	**25.3**	**36.2**

2016	Internally generated software	Other software	Total
Projects in progress			
Included in *Carrying amounts* at December 31, 2016	4.6	2.5	**7.1**
Commitments at December 31, 2016	-	-	-

10. Other assets

Other assets is composed of bank note inventory (production materials, including the polymer substrate and ink), the net defined-benefit asset related to the Bank of Canada Pension Plan, and all other assets, which are primarily prepaid expenses.

Accounting policy

Bank note inventory is measured at the lower of the cost or the net realizable value. The cost to produce finished bank notes is expensed as incurred. All other assets are recorded at amortized cost using the effective interest method.

The accounting policy for the net defined-benefit asset related to the Bank of Canada Pension Plan is discussed in Note 15.

Supporting information

Composition of other assets

As at December 31	Note	2017	2016
Bank note inventory		7.2	3.0
Net defined-benefit asset	15	109.0	131.2
All other assets		16.4	30.7
Total other assets		**132.6**	**164.9**

11. Bank notes in circulation

Bank notes in circulation represents those bank notes that have been produced and issued for use in the economy. They are non-interest-bearing liabilities and are due on demand.

Accounting policy

Bank notes in circulation are recorded at face value. The fair value of bank notes in circulation approximates their carrying value. The Bank's assessment of related financial risks is discussed in Note 7.

Supporting information

In accordance with the *Bank of Canada Act*, the Bank has the sole authority to issue bank notes for circulation in Canada. Currently, bank notes are issued in denominations of $5, $10, $20, $50 and $100. Other bank notes, as described in the table below, are denominations that are still in circulation but are no longer issued.

The face value of notes in circulation, presented by denomination, is as follows:

As at December 31	2017	2016
$5	1,346.9	1,265.0
$10	1,503.4	1,358.7
$20	19,946.4	19,459.0
$50	14,845.5	13,076.1
$100	47,099.1	44,178.2
Other bank notes	1,114.6	1,141.6
Total bank notes in circulation	**85,855.9**	**80,478.6**

12. Deposits

Deposits is composed of deposits by the Government of Canada, members of Payments Canada and other financial institutions, and also includes unclaimed balances remitted to the Bank in accordance with governing legislation. The Bank pays interest on the deposits for the Government of Canada, members of Payments Canada and some other financial institutions at short-term market rates. The Bank pays interest on unclaimed balances in accordance with governing legislation. Interest expense on deposits is included in net income.

Deposits from the Government of Canada were $21,454.2 million as at December 31, 2017 ($20,228.4 million as at December 31, 2016). They consist of $1,454.2 million for operational balances and $20,000.0 million held for the prudential liquidity-management plan ($228.4 million and $20,000.0 million, respectively, at December 31, 2016).

The Bank's policies on classifying and measuring financial instruments are discussed in Note 3, and related financial risks are discussed in Note 7.

13. Securities sold under repurchase agreements

Securities sold under repurchase agreements, also known as overnight reverse repos, are reverse repo-type transactions in which the Bank sells Government of Canada securities to designated counterparties with an agreement to buy them back at a predetermined price on an agreed transaction date. They are fully collateralized by Government of Canada treasury bills and, as such, are treated as collateralized borrowing transactions.

There were no SSRAs outstanding as at December 31, 2017 ($1,500.0 million in SSRAs were outstanding at December 31, 2016, with $1,500.5 million in Government of Canada treasury bills pledged as collateral by the Bank).

The Bank's policies on classifying and measuring financial instruments are discussed in Note 3, and related financial risks are discussed in Note 7.

14. Other liabilities

Other liabilities consists of accounts payable and accrued liabilities, provisions and the net defined-benefit liability of the Bank of Canada Supplementary Pension Plan and other employee benefit plans.

Accounting policy

The Bank's policies on classifying and measuring financial instruments (accounts payable and accrued liabilities, within the context of *Other liabilities*) are discussed in Note 3, and related financial risks are discussed in Note 7. The Bank's accounting policy for the net defined-benefit liability of the Bank of Canada Supplementary Pension Plan and other employee benefit plans is discussed in Note 15.

A provision is recognized if, as a result of a past event, the Bank has a present legal or constructive obligation that can be estimated reliably as at the Statement of Financial Position date, and it is probable that an outflow of economic benefits will be required to settle the obligation.

Accounting estimates and judgments

Estimates for provisions consider the present value of the cash flows expected to be required to settle the obligation.

Supporting information

Composition of other liabilities

As at December 31	Note	2017	2016
Surplus payable to the Receiver General for Canada		204.2	468.8
Net defined-benefit liability	15		
Pension benefit plans		64.4	38.2
Other benefit plans		178.3	172.0
All other liabilities and provisions		73.1	129.9
Total other liabilities		**520.0**	**808.9**

Surplus payable to the Receiver General for Canada

The following table reconciles the opening and closing balances of the surplus payable to the Receiver General for Canada, which is based on the requirements of section 27 of the *Bank of Canada Act* and the Bank's remittance agreement with the Minister of Finance, as discussed in Note 18.

As at December 31	2017	2016
Opening balance at beginning of year	468.8	249.5
Remittance of surplus to the Receiver General for Canada	(1,193.7)	(849.5)
Surplus for the Receiver General for Canada	929.1	1,068.8
Closing balance at end of year	**204.2**	**468.8**

15. Employee benefits

The Bank provides employees with several employee benefit plans, consisting of short-term employee benefits, post-employment benefits, long-term employee benefits and termination benefits.

The Bank of Canada Pension Plan (the Pension Plan) was established under the provisions of the *Bank of Canada Act*, 1934, and has remained in accordance with the *Bank of Canada Act* as subsequently amended. The Pension Plan is a registered pension plan as defined in the *Income Tax Act* (ITA) and, consequently, is not subject to income taxes.

The Bank of Canada Supplementary Pension Arrangement (SPA) was created to pay pension benefits to Bank employees with annual earnings above the amount covered by the Pension Plan, as provided under the ITA. The SPA is a retirement compensation arrangement as defined in the ITA.

The Bank is the administrator of the pension plans. The Bank's Board of Directors has established a Pension Committee and has delegated to it the responsibility for carrying out the Bank's duties as administrator of the plans, including adherence to the guidelines established in the Statement of Investment Policy and Procedures (SIPP), which is approved annually by the Board. A separate trust fund has been established for each plan to receive and invest contributions and pay benefits due under the plans. The assets cannot be used for any purpose other than payment of pension benefits and related administration fees.

The Bank also sponsors other benefit plans provided to employees, specifically the unfunded post-employment defined-benefit plans for life insurance and eligible health and dental benefits, the unfunded long-service benefit program for employees hired before January 1, 2003, and the long-term disability program.

Accounting policy

Employee benefits refer to all forms of consideration given by an entity in exchange for services rendered by employees or for the termination of employment as described in the following table:

Category	Description	Measurement and Recognition
Short-term employee benefits	Benefits expected to settle wholly within 12 months of when the service was rendered. Refers to salary, bonus, annual leave, health benefits, dental care and statutory benefits.	The liability and related expense are recognized in the reporting period in which they occur and are measured on an undiscounted basis.

Category	Description	Measurement and Recognition
Post-employment benefits	Benefits payable after the completion of employment (pension plan and other benefits). Refers to ▪ the Pension Plan, ▪ the SPA, ▪ life insurance and eligible health and dental benefits, and ▪ the long-service benefit program.	The net asset or liability recognized is composed of the present value of the defined-benefit obligation less the fair value of plan assets, when applicable. The defined-benefit obligation is calculated by discounting estimated future cash flows using an appropriate interest rate.[1] The plan assets of funded benefit plans are measured at their fair value at the end of the reporting period. The expense recognized in net income for the reporting period consists of current service costs, past service costs, net interest on the net defined-benefit liability/asset, gains or losses arising on settlement (if applicable) and administrative costs. Net interest is calculated by applying the discount rate to the net defined-benefit liability/asset. Remeasurements[2] are recognized immediately in other comprehensive income in the reporting period in which they occur and are accumulated in *Equity*. Remeasurements comprise actuarial gains and losses, the return on plan assets and the effect of the asset ceiling (if applicable). They exclude amounts included in net interest on the net defined-benefit liability/asset. Past service costs are recognized at the earlier of when the plan amendment or curtailment occurs, or when the Bank recognizes related restructuring costs or termination benefits.
Long-term employee benefits	Refers to the long-term disability program.	The liability recognized is the present value of the defined-benefit obligation, calculated by discounting estimated future cash flows using an appropriate interest rate.[1] The expense recognized in net income for the reporting period consists of current service costs, interest costs, remeasurement gains and losses, and past service costs. The current service costs and the benefit obligations of the plan are actuarially determined on an event-driven accounting basis.
Termination benefits	Benefits provided in exchange for termination	The liability and related expense is recognized in net income at the earlier of when the Bank can no longer withdraw the offer of the termination benefit or when the Bank recognizes any related restructuring costs.

1 The interest rate used is based on those of AA-rated Canadian corporate bonds with terms to maturity approximating the estimated duration of the obligation

2 The current service costs and the benefit obligations of the plans are actuarially determined using the projected unit credit method.

Accounting estimates and judgments

The cost of the defined-benefit pension plans and other benefit plans and the present value of the benefit obligations are determined using actuarial valuations. An actuarial valuation involves using various assumptions determined by management and reviewed annually by the actuary that may differ from future developments. These assumptions include

- discount rates,
- inflation rates,
- rates of compensation increases,
- rates of pension increases,
- medical cost trends, and
- mortality rates.

The most recent actuarial valuation for the purposes of funding the pension plans was done as at January 1, 2017, and the next required valuation will be as at January 1, 2018. Benefits are based on years of service and the average full-time salary for the best five consecutive years. They are indexed to reflect changes in the consumer price index on the date payments begin and each January 1 thereafter.

The significant assumptions used are as follows (on a weighted-average basis):

	Pension benefit plans		Other benefit plans	
As at December 31	**2017**	**2016**	**2017**	**2016**
Defined-benefit obligation				
Discount rate[1]	3.50%	3.90%	3.44%	3.84%
Inflation rate[2]	2.00%	2.00%	n.a.	n.a.
Rate of compensation increase	3.00% + merit	3.20% + merit	3.00% + merit	3.20% + merit
Mortality table[3]	CPM2014Publ (scale CPM-B)	CPM2014Publ (scale CPM-B)	CPM2014Publ (scale CPM-B)	CPM2014Publ (scale CPM-B)
Benefit plan expense				
Discount rate[1]	3.90%	4.10%	3.84%	4.02%
Inflation rate[2]	2.00%	2.00%	n.a.	n.a.
Rate of compensation increase	3.00% + merit	3.20% + merit	3.20% + merit	3.20% + merit
Assumed medical cost trend				
Medical cost trend rate	n.a.	n.a.	5.57–4.50%	5.80–4.50%
Year that the rate reaches the ultimate trend rate	n.a.	n.a.	2029	2029

1 The parameter most subject to change is the discount rate, which is determined by reference to Canadian AA-rated corporate bonds with terms to maturity approximating the duration of the obligation. The weighted-average duration of the defined-benefit obligation is approximately 17 to 18 years for the pension benefit plans and 6 to 23 years for the other benefit plans.

2 "Other benefit plans" does not include an inflation rate adjustment since the adjustment is a component of *Assumed medical cost trend.*

3 In 2017, the assumption for life expectancy for the plan valuations assumes that a male member reaching 60 will live for approximately 27 years (27 years in 2016) and a female member approximately 29 years (29 years in 2016).

The mortality assumptions used in the plan valuations are based on tables issued by the Canadian Institute of Actuaries. Actuarial adjustments to the tables are applied when recommended by the plan's actuaries.

Sensitivity analysis

Due to the complexities involved in the valuation and its long-term nature, a defined-benefit obligation is highly sensitive to changes in these assumptions.

The following table outlines the potential impact of changes in certain key assumptions used in measuring the defined-benefit obligations and benefit costs.

	Increase (decrease) in obligation[1]	
	Pension benefit plans	Other benefit plans
Discount rate		
Impact of 0.10% increase	(31.1)	(3.1)
Impact of 0.10% decrease	31.9	3.2
Rate of compensation increase		
Impact of 0.10% increase	5.6	0.3
Impact of 0.10% decrease	(5.6)	(0.3)
Mortality rate		
Impact of 10.00% increase	(38.9)	(2.9)
Impact of 10.00% decrease	43.3	3.4
Inflation rate		
Impact of 0.10% increase	28.1	n.a.
Impact of 0.10% decrease	(27.5)	n.a.
Medical cost trend rates		
Impact of 1.00% increase	n.a	31.0
Impact of 1.00% decrease	n.a	(24.0)

1 The sensitivity analysis presented in this table is hypothetical and should be used with caution. The analysis is based on a change in assumptions while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. The method and types of assumptions used in preparing the sensitivity analysis did not change compared with the previous year.

Supporting information

The changes to the net defined-benefit asset (liability) for the year are as follows:

	Pension benefit plans		Other benefit plans	
	2017	2016	2017	2016
Fair value of plan assets				
Fair value of plan assets as at January 1	1,701.6	1, 596.8	-	-
Interest income	66.2	65.2	-	-
Remeasurement gains (losses)				
Return on plan assets[1]	117.1	56.5	-	-
Bank contributions	29.6	27.5	-	-
Employee contributions	12.2	11.0	-	-
Benefit payments and transfers	(56.3)	(53.4)	-	-
Administration costs	(2.1)	(2.0)	-	-
Fair value of plan assets as at December 31	**1,868.3**	**1, 701.6**	-	-
Defined-benefit obligation				
Benefit obligation as at January 1	1,608.6	1, 499.1	172.0	168.2
Current service cost	42.2	37.5	5.3	5.3
Interest cost	63.3	62.1	6.7	6.8

	Pension benefit plans		Other benefit plans	
	2017	2016	2017	2016
Past service cost	-	-	0.8	-
Employee contributions	12.2	11.0	-	-
Remeasurement (gains) losses				
Arising from changes in demographic assumptions	(2.7)	-	-	-
Arising from changes in experience	41.3	-	-	-
Arising from changes in financial assumptions	115.1	52.2	1.0	(0.4)
Benefit payments and transfers	(56.3)	(53.3)	(7.5)	(7.9)
Defined-benefit obligation as at December 31	**1,823.7**	**1, 608.6**	**178.3**	**172.0**
Net defined-benefit asset (liability)	**44.6**	**93.0**	**(178.3)**	**(172.0)**
Net defined-benefit asset	109.0	131.2	-	-
Net defined-benefit liability	(64.4)	(38.2)	(178.3)	(172.0)
Net defined-benefit asset (liability)	**44.6**	**93.0**	**(178.3)**	**(172.0)**
Benefit plan expenses recognized in net income	41.4	36.4	13.3	11.4
Remeasurement losses (gains) recognized in other comprehensive income	36.6	(4.3)	0.5	0.2

1 The return on plan assets excludes interest income.

The defined-benefit obligation, presented by membership category, is as follows:

	Pension benefit plans		Other benefit plans	
As at December 31	2017	2016	2017	2016
Active members	757.6	627.7	87.8	87.9
Pensioners	956.1	884.7	90.5	84.1
Deferred members	110.0	96.2	-	-
Defined-benefit obligation	**1,823.7**	**1, 608.6**	**178.3**	**172.0**

The cumulative remeasurement losses recognized in other comprehensive income are as follows:

	Pension benefit plans		Other benefit plans	
As at December 31	2017	2016	2017	2016
Cumulative remeasurement losses recognized, beginning of year	(212.2)	(216.5)	(16.8)	(16.6)
Remeasurement gains (losses) recognized in current year	(36.6)	4.3	(0.5)	(0.2)
Cumulative remeasurement losses recognized, end of year	**(248.8)**	**(212.2)**	**(17.3)**	**(16.8)**

Pension benefit plans asset mix

The pension plans' SIPPs require that investments be held in a diversified mix of asset types and also set out requirements for investment eligibility. The diversification of assets serves to decrease the variations in the expected return performance of the portfolio. For the Pension Plan, the current practice is to conduct an asset-liability modelling (ALM) study every three years. The ALM assists the Pension Committee in establishing an asset allocation that is consistent with the Pension Plan's objectives and the Bank's risk tolerance. The latest ALM report was endorsed by the Pension Committee in September 2015.

The pension plans' investments are subject to credit, liquidity and market risks, the latter being the most significant risk due to the volatility of the assets. The plans' liabilities are calculated using a discount rate determined by reference to Canadian AA-rated corporate bonds; a rate of return on plan assets inferior to the discount rate would result in a deficit. Requirements for asset diversification and investment eligibility serve as basic risk management tools for the investment portfolio.

The pension benefit plan assets consist of the following:

	2017				2016			
As at December 31	Quoted	Unquoted	Total	%	Quoted	Unquoted	Total	%
Money market instruments	11.9	-	**11.9**	0.6	8.1	-	**8.1**	0.5
Equity instruments								
Canadian equity funds	333.8	-	**333.8**	17.9	317.7	-	**317.7**	18.8
Foreign equity funds	573.2	-	**573.2**	30.7	543.2	-	**543.2**	31.8
Debt instruments[1]								
Securities issued or guaranteed by the Government of Canada	254.5	-	**254.5**	13.6	232.0	-	**232.0**	13.6
Other securities	400.8	-	**400.8**	21.5	353.6	-	**353.6**	20.8
Real estate funds	-	257.2	**257.2**	13.8	-	211.8	**211.8**	12.4
SPA statutory deposit	-	36.9	**36.9**	2.0	-	35.2	**35.2**	2.1
	1,574.2	**294.1**	**1,868.3**	**100.0**	**1, 454.6**	**247.0**	**1, 701.6**	**100.0**

1 Debt instruments consist of fixed-income securities and inflation-linked assets.

Total cash payments

Regulations governing federally regulated pension plans establish certain solvency requirements calculated under the assumption that the plans are terminated at the valuation date. Actuarial valuations for funding purposes are required annually under the *Pension Benefits Standards Act*. The actuarial valuation of the Pension Plan completed as at January 1, 2017, reported a solvency surplus of $66.5 million and a three-year average solvency surplus of $41.8 million ($20.0 million and $37.0 million, respectively, for the valuation completed at January 1, 2016). Contributions in 2018 will be based on the actuarial valuation as at January 1, 2018, and are estimated to be $11.0 million ($24.3 million in 2017).

16. Leases

The Bank occupies leased premises throughout Canada including Ottawa, Halifax, Montréal, Toronto, Calgary and Vancouver.

Accounting policy

Payments made for leases classified as operating leases are charged to net income on a straight-line basis over the term of the lease. The Bank is not party to any significant finance leases.

Supporting information

The minimum payments are determined at the beginning of the lease and may vary during its term. Contingent rent on premises leases is based on building operating costs. The expiry dates vary for each lease, ranging from fiscal 2018 to 2026.

The future minimum payments for rent, real estate taxes and building operations as at December 31, 2017, are presented below.

As at December 31	2017	2016
Due within one year	1.9	15.9
Due within one to five years	8.9	9.3
Due later than five years	6.7	1.4
Total premises lease commitments	**17.5**	**26.6**
Lease payments expensed	**19.4**	**20.8**

17. Commitments, contingencies and guarantees

Commitments

A commitment is an enforceable, legally binding agreement to make a payment in the future for the purchase of goods or services. These amounts are not recorded in the Statement of Financial Position since the Bank has not yet received the goods or services from the supplier. The amounts below are what the Bank has committed to pay based on current expected contract prices.

Commitments related to *Property and equipment, Intangible assets* and *Leases* are discussed in Note 8, Note 9 and Note 16, respectively.

The Bank has a long-term contract with an outside service provider for retail debt services that expires in 2021. As at December 31, 2017, fixed payments totalling $71.2 million remained, plus a variable component based on the volume of transactions.

The Bank has long-term contracts with outside service providers for business recovery and data centre services, which expire between 2023 and 2026. As at December 31, 2017, fixed payments totalling $69.1 million remained.

As at December 31, 2017, the total minimum payments for long-term contracts, other than leases, property and equipment, and intangible assets, were as follows:

As at December 31	2017
Due within one year	35.4
Due within one to five years	70.8
Due within three to five years	32.6
Thereafter	3.0
Total minimum payments	**141.8**

Foreign currency swap facilities

The Bank is a counterparty to several foreign currency swap facilities as follows:

As at December 31, 2017	Denominated in	Expiry date	Maximum available
Bilateral liquidity swap facilities with other central banks			
Bank of England	British pounds	No expiry	Unlimited
Bank of Japan	Japanese yen	No expiry	Unlimited
Bank of Korea	South Korean won	No expiry	Unlimited
European Central Bank	euros	No expiry	Unlimited
Federal Reserve Bank of New York	US dollars	No expiry	Unlimited
Swiss National Bank	Swiss francs	No expiry	Unlimited
People's Bank of China	renminbi	November 8, 2020	200,000.0
Other swap facilities			
Exchange Fund Account of Canada	Canadian dollars	No expiry	Unlimited
Federal Reserve Bank of New York	US dollars	December 12, 2018	2,000.0
Banco de México	Canadian dollars	December 12, 2018	1,000.0
Bank for International Settlements	Canadian dollars	No expiry	100.0

Bilateral liquidity swap facilities with other central banks

The bilateral liquidity swap facilities were established to provide liquidity in each jurisdiction in any of their currencies, should market conditions warrant.

In November 2017, the Bank signed a swap facility (standing arrangement with no expiry date) with the Bank of Korea. In December 2017, the Bank and the People's Bank of China renewed the reciprocal Canadian-dollar/renminbi bilateral swap arrangement, which expires on November 8, 2020.

These facilities can be structured as either a Canadian-dollar liquidity swap or a foreign-currency liquidity swap arrangement and can be initiated by either party. The exchange rate applicable to the swap facilities is based on the prevailing market spot exchange rate as mutually agreed upon by the parties.

Other swap facilities

The other swap facilities established with the Federal Reserve Bank of New York and with the Banco de México, which expire on December 12, 2018, have indefinite terms and are subject to annual renewal.

The Bank is party to a standing foreign currency swap facility with the Exchange Fund Account of Canada. There is no stated maximum amount under this agreement.

The Bank is also party to a swap facility with the BIS for operational purposes. Transactions executed under this agreement are generally one business day in duration. The BIS swap was not accessed in 2017, but was accessed in 2016. None of the other liquidity or other swaps were accessed, by either party, in 2017 or 2016. No related commitments existed as at December 31, 2017 ($nil as at December 31, 2016).

Contingencies

Contingent liabilities are possible obligations that could result from uncertain future events outside of the Bank's control, or present obligations not recognized because the amount cannot be adequately measured or payment is not probable. Contingent liabilities are not recognized in the financial statements but are disclosed if significant.

BIS shares

The 9,441 shares in the BIS have a nominal value of 5,000 Special Drawing Rights per share, of which 25% (i.e., SDR1,250) is paid up. The balance of SDR3,750 is callable at three months' notice by a decision of the BIS Board of Directors. The Canadian equivalent of this contingent liability was $63.3 million as at December 31, 2017 ($63.9 million at December 31, 2016) based on prevailing exchange rates.

Guarantees

LVTS guarantee

The LVTS is a large-value payment system, owned and operated by Payments Canada. Any deposit-taking financial institution that is a member of Payments Canada can participate in the LVTS, provided that it maintains a settlement account at the Bank of Canada, has the facilities to pledge collateral for LVTS purposes, and meets certain technical requirements. The system's risk-control features, which include caps on net debit positions and collateral to secure the use of overdraft credit, are sufficient to permit the system to obtain the necessary liquidity to settle in the event of the failure of the single LVTS participant with the largest possible net amount owing. The Bank guarantees to provide this liquidity, and, in the event of a single-participant failure, the liquidity loan will be fully collateralized.

In the extremely unlikely event that there were defaults by more than one participant during the LVTS operating day in an aggregate amount greater than the largest possible net amount owing by a single participant, there would not likely be enough collateral to secure the amount of liquidity that the Bank would need to provide to settle the system. This may result in the Bank having unsecured claims on the defaulting participants in excess of the amount of collateral pledged to the Bank to cover the liquidity loans. The Bank would have the right, as an unsecured creditor, to recover any amount of its liquidity loan that was unpaid.

The Bank's maximum exposure under this guarantee is not determinable, since the guarantee would be called upon only if a series of extremely low-probability events were to occur. No amount has ever been paid as a result of this guarantee. For that reason, no amount has ever been provided for in the liabilities of the Bank.

Other indemnification agreements

In the normal course of operations, the Bank includes indemnification clauses within agreements with various counterparties in transactions such as service agreements, software licences, leases and purchases of goods. Under these agreements, the Bank agrees to indemnify the counterparty against loss or liability arising from acts or omissions of the Bank in relation to the agreement. The nature of the indemnification agreements prevents the Bank from making a reasonable estimate of the maximum potential amount that the Bank would be required to pay. No indemnification amount has ever been paid under such agreements.

Insurance

The Bank does not normally insure against direct risks of loss to the Bank, except for potential liabilities to third parties, and when there is a legal or contractual obligation to carry insurance.

Any costs arising from risks not insured are recognized in the financial statements if, due to a past event, the Bank has a present legal or constructive obligation that can be estimated reliably as at the reporting date, and it is probable that an outflow of economic benefits will be required to settle the obligation.

18. Equity

The Bank manages its capital to ensure compliance with the *Bank of Canada Act*. There were no other externally imposed capital requirements at the end of the reporting year.

Share capital

The authorized capital of the Bank is $5.0 million divided into 100,000 shares with a par value of $50 each. The shares are fully paid and have been issued to the Minister of Finance, who holds them on behalf of the Government of Canada.

Statutory reserve

The statutory reserve was accumulated out of net income until it reached the stipulated maximum amount of $25.0 million in 1955, consistent with the requirement of section 27 of the *Bank of Canada Act*.

Special reserve

Following an amendment to section 27.1 of the *Bank of Canada Act*, the special reserve was created in 2007 to offset potential unrealized valuation losses due to changes in the fair value of the Bank's available-for-sale portfolio. An initial amount of $100 million was established at that time, and the reserve is subject to a ceiling of $400 million.

The amount held in the special reserve is reviewed regularly for appropriateness using value-at-risk analysis and scenario-based stress tests and may be amended, pursuant to a resolution passed by the Board of Directors.

Available-for-sale reserve

The available-for-sale reserve represents the net unrealized fair value gains of each of the Bank's AFS assets, as shown below.

As at December 31	2017	2016
Government of Canada treasury bills	-	-
BIS shares	365.6	357.0
Total available-for-sale reserve	**365.6**	**357.0**

Retained earnings

The Bank's remittance agreement with the Minister of Finance was designed to enable the Bank to manage its equity requirements with consideration given to the volatility arising from fair value changes and remeasurements, which are recorded in other comprehensive income. This agreement allows the Bank to withhold any increase in cumulative net unrealized losses on AFS financial assets, unrealized remeasurements of the net defined-benefit liability/asset on defined-benefit plans, and other unrealized or non-cash losses arising from changes in accounting standards or legislation, from its remittance to the Receiver General for Canada. Any decrease in withheld cumulative net unrealized non-cash losses is added to the remittance.

The net income of the Bank, less any allocation to reserves, is considered ascertained surplus (surplus) and is transferred to the Receiver General for Canada, consistent with the requirement of section 27 of the *Bank of Canada Act*. Changes to the surplus payable to the Receiver General for Canada are presented in Note 14.

During 2017, the Bank withheld $46.6 million from its remittances to the Receiver General for Canada (in 2016, reimbursed $3.9 million from previously withheld remittances). As at December 31, 2017, $156.0 million in withheld remittances was outstanding ($109.4 million as at December 31, 2016).

19. Related parties

Persons or entities are considered related parties to the Bank if they are

- under common ownership to the Government of Canada;
- a post-employment benefit plan for the benefit of Bank employees; or
- a member of key management personnel, which include members of the Executive Council, Senior Management Council or the Board of Directors, and their families.

Government of Canada

The Bank is related in terms of common ownership to all Government of Canada departments, agencies and Crown corporations. To achieve its monetary policy objectives, the Bank maintains a position of structural and functional independence from the Government of Canada through its ability to fund its own operations without external assistance, and through its management and governance.

In the normal course of its operations, the Bank enters into transactions with related parties, and significant transactions and balances are presented in these financial statements. Not all transactions between the Bank and government-related entities have been disclosed, as permitted by the partial exemption available to wholly owned government entities in International Accounting Standard 24 *Related Party Disclosures* (IAS 24).

The Bank provides funds-management, fiscal-agent and banking services to the Government of Canada, as mandated by the *Bank of Canada Act*, and does not recover the costs of these services.

Bank of Canada Pension Plan

The Bank provides management, investment and administrative support to the Pension Plan. Services in the amount of $0.9 million ($0.9 million in 2016) were fully recovered from the plan in 2017. Disclosures related to the Bank's post-employment benefit plans are included in Note 15.

Key management personnel and compensation

The key management personnel responsible for planning, directing and controlling the activities of the Bank are the members of the Executive Council, the Senior Management Council and the Board of Directors. The number of key management personnel as at December 31, 2017, was 30 (27 in 2016).

The compensation of key management personnel is presented in the following table. Short-term employee benefits and post-employment benefits apply to Bank of Canada employees only.

As at December 31	2017	2016
Short-term employee benefits	6.6	4.8
Post-employment benefits	1.8	2.0
Directors' fees	0.3	0.3
Total compensation	**8.7**	**7.1**

There were no other long-term employee benefit costs or termination benefits related to key management personnel in 2017 ($nil in 2016).

Bank of Canada Offices

Head Office

Bank of Canada
234 Wellington Street
Ottawa, ON K1A 0G9

Regional Offices

Atlantic Provinces
1701 Hollis Street, Suite 1300
Halifax, NS B3J 3M8

Quebec
1501 McGill College Avenue,
Suite 2030
Montréal, QC H3A 3M8

Ontario
150 King Street West, Suite 2000
Toronto, ON M5H 1J9

Prairie Provinces, Nunavut and Northwest Territories
308–4th Avenue S.W., Suite 2411
Calgary, AB T2P 0H7

British Columbia and Yukon
200 Granville Street, Suite 2160
Vancouver, BC V6C 1S4

New York Office
Canadian Consulate General
1251 Avenue of the Americas
New York, NY 10020-1175

Website

Timely access to press releases, speeches, major publications and current financial data is available on the Bank's website.
bankofcanada.ca

Public Information

General inquiries about the Bank of Canada
Telephone: 1-800-303-1282
Fax: 613-782-7713
Email: info@bankofcanada.ca

Information on Unclaimed Balances

Telephone: 1-800-303-1282
Fax: 613-782-7713
Email: info@bankofcanada.ca