BANK OF CANADA
BANQUE DU CANADA

BANK OF CANADA **PENSION PLAN** ANNUAL REPORT

2020

May 2021
bankofcanada.ca

The *Pension Plan Annual Report* and the Plan's financial statements are available on the Bank of Canada's website at bankofcanada.ca.

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YOUR PLAN AT A GLANCE*
2020

Pension payments from the Fund: **$55.4 million**

4,037 members

The value of the Fund's assets: **$2,070 million**

9%
The Fund's rate of return net of fees

$475 MILLION
Our surplus on a going-concern basis

132%
Our funding ratio on a going-concern basis

$123 MILLION
Our deficit on a solvency basis

94%
Our ratio on a solvency basis

* as at December 31, 2020

Message from the Chair

I am pleased to provide this report on the performance of the Bank's Pension Plan in 2020.

The Plan's position

Last year was an extraordinarily challenging one for investors. In the early months of the pandemic, asset prices dropped sharply and quickly; this was followed by strong gains later in the year. Equity markets ended the year on a positive note. As well, there was a large decline in market interest rates, associated with strong returns on fixed-income securities. In that context, the Bank's Pension Trust Fund generated an annual investment return of 9.0 per cent in 2020.

The realized return was below the benchmark of 11.1 per cent, owing mainly to the investment strategy of our global equity and Canadian small-cap equity managers. For global equities, the strategy relies in part on undervalued companies that are expected to grow in value in the future; such companies did not perform as well in 2020. The Canadian small-cap equity allocation underperformed due to its low exposure to the materials sector, which outperformed significantly in 2020, and its focus on high-quality, less speculative companies that did not rebound as strongly in the latter part of the year.

As of the end of 2020 the Plan showed a $475 million surplus on a going-concern basis, (which assesses the Plan over the long term on the assumption that it will operate indefinitely). This compares with a surplus of $480 million at the end of 2019.

On a solvency basis (calculated on the hypothetical assumption that the Plan is terminated on the date of the valuation), the Plan had a deficit of $123 million at the end of 2020, compared with a surplus of $122 million at the end of 2019.

The decline in both the going-concern and solvency ratios, despite the favourable investment performance, is due to the lower discount rates used to calculate the present value of the fund's future liabilities. (These in turn reflect the decline in bond yields resulting from the pandemic.) The Bank will continue to monitor the solvency position of the Plan and expects it will improve as the economy recovers.

The Plan's position remains strong

We estimate that the Plan's funding ratio, on a going-concern basis, remained at 132 per cent as of March 31, 2021. The solvency ratio is estimated to have increased to 100 per cent.

While the value of the Plan's assets decreased slightly in the first quarter of 2021, with a rate of return of -0.5 per cent, a higher discount rate for estimating solvency liabilities has improved the financial position of the Plan.

The Bank remains well able to meet its obligation to provide a secure retirement for its employees.

Bank pension contributions

Despite the Plan's strong funding position on a going-concern basis, the Bank was required to resume contributions in January 2021 due to the solvency position. This is in accordance with regulations under the *Pension Benefits Standards Act.*

Update on our ESG journey

Environmental, social and governance (ESG) considerations are increasingly important to many investors. In light of evidence that ESG factors have a material impact on risk and return, we see the consideration of such factors as consistent with our fiduciary duties, which require us to be prudent and to make investment decisions in the best interests of our Plan members.

We are evaluating how the Plan's external managers are incorporating ESG-related risks and opportunities into their investment decisions. Although we started this work a few years ago, we are still early in our ESG journey. Best practices are evolving, and one challenge for any investor or fund manager is finding reliable, consistent and complete ESG information on investments, including the implications of climate change. Our ESG journey will continue in the coming years and you can expect to hear more about this topic.

Timothy Lane

Deputy Governor
Acting Chair, Pension Committee

Pension governance

Under the *Pension Benefits Standards Act* and the terms of the Bank's Pension Plan (By-law 15), the Bank is the Plan administrator. Three committees oversee and make decisions related to the administration of the Plan and the investment of Plan assets. They also monitor investment services and performance. The Pension Committee was established by the Bank's Board of Directors to perform and report on the activities and functions of the Plan administrator. The Pension Committee has created two other committees—the Pension Administration Committee (PAC) and the Pension Fund Investment Committee (PFIC)—to assist it in carrying out its duties.

Governance review

In 2021 we are reviewing our governance structure, policies and practices, as we do every five years. Conducted with an external legal firm, the review is meant to ensure we remain current with pension governance best practices, and that we are up to date on developments in common law and any changes to applicable legislation and regulatory guidelines.

Next year we will provide an update on what, if any, changes result from the governance review.

Selection of pension services provider

In 2020 we issued a Request for Proposal inviting vendors to bid on the provision of pension administrative, actuarial and consulting services to the Bank and the Pension Plan.

Contract negotiations are ongoing and will be finalized before the end of 2021.

More details will be provided to Plan members as they become available.

MEMBERS OF THE THREE COMMITTEES

Pension Committee

Timothy Lane,
Deputy Governor (acting Chair)

Debora Bielecki,
Bank Director

Robert Campbell,
Bank Director

Raymond E. Ivany,
Bank Director

Greg Stewart,
Bank Director

Coralia Bulhoes,
Managing Director and Chief Financial Officer

Jeremy Farr,
General Counsel and Corporate Secretary

Darcy Bowman,
Senior Legal Counsel (Secretary, non-voting)

Pension Administration Committee

Steve Thomas,
Executive and Legal Services (Chair)

Darcy Bowman,
Executive and Legal Services

Alexis Corbett,
Human Resources

Alexandre Deslongchamps,
Communications

Darryl Tessier,
Financial Services

Marc Tremblay,
Human Resources

Anne-Marie Lainesse,
Director, Pension Plan (non-voting member)

Pension Fund Investment Committee

Ron Morrow,
Advisor (Chair)

Carol Brigham,
Banking and Payments Department

Ian Christensen,
Financial Markets

Annick Demers,
Financial Markets

Kevin Dunn,
Banking and Payments Department

Étienne Lessard,
Financial Markets

Anne-Marie Lainesse,
Director, Pension Plan (non-voting member)

Pension assets and investments

Assets

The Fund continues to be invested in a diversified portfolio of equities, nominal bonds, inflation-linked assets, real estate and cash, consistent with its long-term investment principles (**Figure 1**).

Most of the Fund's assets are invested using external managers chosen for their expertise in specific asset classes and for their investment strategies. Diversification across asset classes and investment styles is a prudent way to achieve the Fund's long-term investment objectives while managing investment risks.

Implementing the recommendations of the 2018 Asset-Liability Modelling Study – the final stage

In September 2018, external pension experts presented to the Pension Committee their recommendations following a comprehensive review—known as an Asset-Liability Modelling (ALM) study—of the Fund's portfolio of assets in light of emerging economic, financial and investment trends. The study concluded that although the Plan's overall financial position was strong and the asset composition balances expected returns and risks efficiently, adjustments could be considered to reduce risk for a similar level of expected return.

In 2019, the Pension Committee endorsed the study's recommendation to invest up to 15 per cent of the Fund's assets in private infrastructure equity (PIE), in order to enhance diversification of our assets.

In 2020, we selected external managers to gradually allocate these assets. Our goal is to allocate 15 per cent of our assets to PIE by the end of 2022.

The next ALM study will be conducted in 2022.

Investments

The Fund's day-to-day investment activity is overseen by the PFIC, which reports quarterly to the Pension Committee. The PFIC's actions are guided by the Plan's Statement of Investment Policies and Procedures and by the Pension Committee, which establishes the allocation ranges and performance benchmarks for each asset category.

The PFIC also monitors the performance of the Fund's external portfolio managers and leads annual performance reviews on behalf of the Pension Committee.

Equities

The Fund invests in Canadian, global and emerging-market equities. These holdings are managed by external portfolio managers.

Fixed-income securities

Nominal bonds

Nominal bond holdings are invested in a mix of Canadian-issued bonds and debentures, including publicly marketable securities and high-quality private infrastructure loans. Most of these holdings are managed externally. A small part of the portfolio is administered directly by the Bank to manage the duration of the Fund's fixed-income investments.

Inflation-linked assets

These assets include inflation-linked bonds (primarily Government of Canada Real Return Bonds) and inflation-linked mortgages guaranteed by the Canada Mortgage and Housing Corporation.

Real estate

The Fund is currently invested in a range of real estate instruments across different sectors and regions of Canada, the United States and Europe, managed by external managers.

Cash

The Fund maintains sufficient cash deposits and Government of Canada treasury bills to meet anticipated payment obligations and investment commitments.

Supplementary Trust Fund

The Supplementary Pension Arrangement (SPA) supplements the pensions of employees whose salary level results in pension benefits that are above the maximum prescribed by the Income Tax Act. The provisions of the SPA mirror the Plan, and a separate trust fund (the Supplementary Trust Fund (STF)) has been established to support it. STF investments are directed by the Pension Committee and the PFIC.

Performance of the Fund

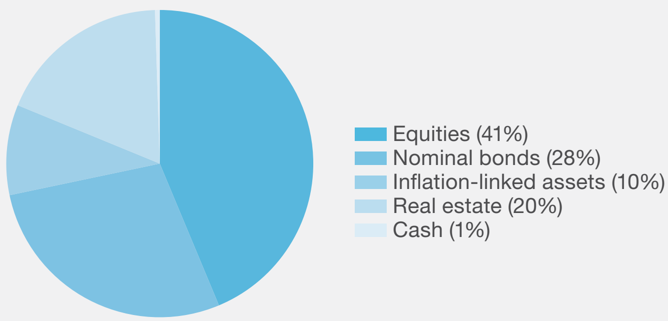
The Fund's overall benchmark is based on a mix of indexes, such as the S&P/TSX Composite Index and the MSCI World Index, weighted to reflect the asset-mix target of the Fund.

Plan benefits are indexed each year to keep pace with inflation. The long-term investment objective in place in 2020 was to achieve a rate of return of 5.25 per cent, which is equal to the Bank of Canada's 2.0 per cent inflation target plus a real return of 3.25 per cent, after expenses.

FIGURES AND TABLE

Figure 1: The five main asset categories in the Fund's portfolio, 2020[a]

(as at December 31, 2020)



a. Policy allocation midpoints

Figure 2: Total fund rate of return

(at December 31, 2020)

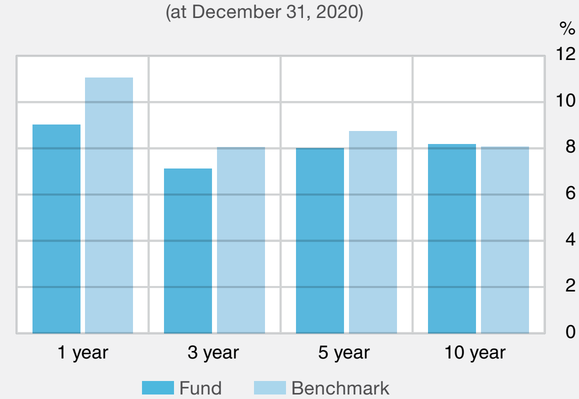


Figure 3: Going-concern basis

($ millions,)

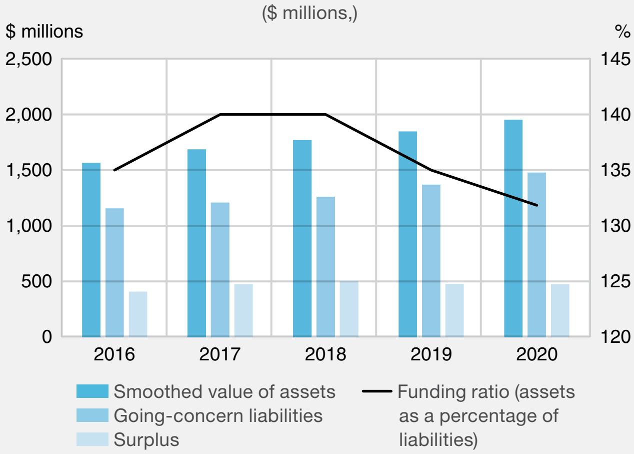


Figure 4: Solvency basis

($ millions)

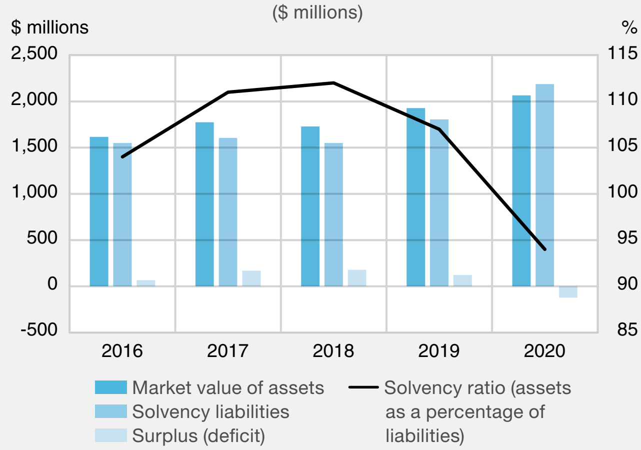


Table 1: Administrative expenses

($ thousands)

	2018	2019	2020
Asset-management fees	7,186	7,013	6,880
Pension administration fees	611	594	670
Other administrative expenses	1,245	1,397	1,497
Initiatives	346	137	201
Consumption taxes	622	650	640
Total expenses	10,011	9,791	9,888
Net assets as at December 31	1,733,955	1,932,369	2,069,713
Total expenses (as a percentage of net assets)	0.58%	0.51%	0.48%

Actuarial valuation

Financial status of the Plan in 2020

In accordance with pension rules, the Bank is conducting annual actuarial valuations. The results of the valuation as at December 31, 2020 showed that the going-concern position of the Plan has remained strong, with a funding surplus of $475 million and a funding ratio of 132 per cent. The Plan had a solvency deficit of $123 million, compared with a surplus of $122 million in 2019, and a solvency ratio of 94 per cent, compared with 107 per cent the previous year (see **Figure 3** and **Figure 4**)

The solvency valuation is based on the hypothetical (and very unlikely) event of Plan termination. It assumes, in this case, that the Bank would continue administering the Plan and managing Plan assets while honouring existing pension commitments to Plan members. These assets would be invested in an investment-grade fixed-income portfolio, in accordance with guidance issued by the Canadian Institute of Actuaries and the Office of the Superintendent of Financial Institutions, which supervises federally regulated pension plans.

The difference between the solvency ratio and the funding ratio reflects the different methodologies used to calculate each ratio's asset values and liabilities.

For solvency purposes, assets are measured at market value, while a smoothed value of assets is used for the going-concern valuation.

To calculate liabilities, the solvency valuation uses a discount rate based on fixed-income portfolio market rates as at December 31, 2020. In contrast, the going-concern valuation uses a longer-term average interest rate that reflects the investments of the Fund. The market interest rates used in the solvency valuation are currently well below the longer-term average, which largely explains why the solvency liabilities are greater than the going-concern liabilities.

Plan contributions

The Bank was not allowed to make any contribution in 2020. Employees contribute in accordance with the formula set in the Plan's By-laws.

In 2021, the Bank is now required to make contributions to the Fund, despite its strong financial position on a going-concern basis. Regulations under the *Pension Benefits Standards Act* require this due to the solvency position of the Plan.

Employer contributions are required if a plan's solvency ratio is less than 105 per cent, regardless of its going-concern funded ratio. At the end of 2020 the Bank's solvency ratio was 94 per cent.

The strong position of the Plan is mainly due to the effects of special contributions of $125 million made from 2009 to 2014 when the Plan had a solvency deficit, and superior investment returns in the past several years.

The resumption of Bank contributions to the Plan will further strengthen its going-concern position and improve its solvency position.

Pension administration

Administrative expenses

The expenses charged to the Fund are reviewed carefully to ensure that they are reasonable and meet the terms of the Plan and the Pension Trust Fund Expense Policy.

Table 1 shows the Fund's administrative expenses. Total expenses increased by $0.1 million in 2020, primarily driven by an increase in pension administration fees and initiatives. Asset management fees decreased again in 2020, largely due to the drop in asset values early in 2020, which resulted in lower asset management fees in the second quarter of 2020. Total administrative costs as a percentage of net Fund assets were 0.48 per cent in 2020, which is comparable to the costs for similar plans.

Communications

In addition to this *Annual Report*, the Bank communicates with Plan members through its yearly newsletter, *Pension News*. Active employees can find electronic versions on the Bank's intranet site, Banque Centrale.

Active employees, as well as pensioners and deferred members, are provided with personalized annual pension statements.

Active employees can find additional information about the Plan on Banque Centrale. They can also use a tool on the Selection Centrale website to estimate the pension they will receive when they retire from the Bank. All Plan members can contact the Bank of Canada Benefits and Pension Administration Centre (Morneau Shepell) if they have questions. See page 12 for contact information.

Full annual audited financial statements of the Plan are available on the Bank's website.

Pensioner information audit

The Bank continued its information audit in 2020, contacting a sample group of pensioners and asking them to confirm their name and contact information. This exercise is part of the due diligence required for the responsible management of the Plan's resources. An audit will be conducted again in 2021.

Definitions of some common pension plan terms

Actuarial valuation

An actuarial valuation estimates, at a given point in time, the total value of the benefits expected to be paid to members compared with the assets available to meet this obligation. The purpose of the valuation is to measure the funding status of the Plan. This can be done in two different ways:

Going-concern basis—The going-concern, or funding, basis assumes that the Plan will continue to operate indefinitely. Assumptions are based on a long-term perspective that accounts for such factors as salary increases and rates of interest, inflation, retirement and mortality.

Solvency basis—The solvency basis assumes that the Plan was terminated at the date of the valuation. This means that there is no need to project future salary increases or changes in membership. The assumptions used to calculate the solvency position, such as the interest rate employed to estimate liabilities, must meet the requirements of the *Pension Benefits Standards Act* and the standards of the Canadian Institute of Actuaries.

Discount rate

The discount rate is the interest rate used to discount the future liabilities of a defined benefit pension plan to calculate the present value of the liabilities, often for the purpose of comparing them with the value of the Plan's assets.

Funding ratio

The funding ratio, which is applied in a going-concern valuation, is defined as the smoothed value of assets divided by the going-concern actuarial liabilities.

Smoothed value of assets

The smoothed value of assets is used for the going-concern valuation, while the market value is used for the solvency valuation and in financial statements. Smoothing spreads the impact of investment losses or gains from any single year over a longer period, which makes contributions to the plan more stable.

Solvency deficiency

Under pension legislation, the solvency deficiency is the amount that is used to calculate whether annual special payments are required and if so, in what amount. The deficiency in any specific year is based on the average solvency position of the past three years. The special payments spread the deficiency amount over five years.

Solvency deficit

The solvency deficit is the amount by which solvency liabilities exceed the market value of the Plan's assets at a point in time.

Solvency ratio

The solvency ratio is the market value of assets divided by the solvency liabilities.

Solvency surplus

The solvency surplus is the amount by which the market value of assets exceeds the solvency liabilities at a point in time.

Additional information

The Bank of Canada Pension Plan is registered with the Office of the Superintendent of Financial Institutions for the purposes of the *Pension Benefits Standards Act*, which regulates the Plan's design, funding, investment policy and operations. The Plan is also registered with the Canada Revenue Agency for the purposes of the *Income Tax Act*, which regulates the maximum contributions payable to, and the maximum permissible defined benefits payable from, a tax-sheltered pension arrangement.

For pension or post-retirement questions and requests, contact the Bank of Canada Benefits and Pension Administration Centre:

The Bank of Canada Benefits and Pension Administration Centre

Morneau Shepell Inc.
1060 Robert-Bourassa Blvd.
Suite 900
Montréal, Quebec H3B 4V3
e-mail : bank-banque-canada@morneaushepell.com

08:00 to 18:00 (Eastern Time)
Monday to Friday

Active employees: **1-888-903-3308 or selectioncentrale.ca**
Retirees: **1-888-588-6111**

For payroll questions, change of address or customer service concerns, contact the HR Centre:

HR Centre

Bank of Canada
10th Floor, East Tower
234 Wellington Street
Ottawa, Ontario K1A 0G9
e-mail: hrcentre@bankofcanada.ca

10:00 to 16:00 (Eastern Time)
Monday to Friday

7766 (internal), 613-782-7766 (Ottawa)
or 1-866-404-7766 (toll-free)