

FINANCIAL
STATEMENTS OF
THE BANK OF CANADA
PENSION PLAN

December 31, 2017

Financial reporting responsibility

The Bank of Canada (the Bank) is the sponsor and administrator of the Bank of Canada Pension Plan (the Plan) and has established and maintains a trust fund for the Plan. 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 Plan.

The accompanying financial statements of the Plan have been prepared by the Bank's management in accordance with Canadian accounting standards for pension plans and contain certain items that reflect estimates and the judgment of management. The integrity and reliability of the data in these financial statements are management's responsibility. Management is also responsible for ensuring that all information in the Plan's Annual Report is consistent with the financial statements.

In support of its responsibility for the integrity and reliability of these financial statements and for the accounting system from which they are derived, management has developed and maintains a system of internal controls to provide reasonable assurance that transactions are properly authorized and recorded, that financial information is reliable, that the assets are safeguarded and liabilities recognized, and that the operations are carried out effectively.

The Pension Committee is responsible for overseeing management of the Plan, and the Bank's Board of Directors has overall responsibility for approving the financial statements. The Pension Committee meets with management and with the external auditor to review the scope of the audit, to review their findings, and to confirm that their responsibilities have been properly discharged. In addition, Mercer (Canada) Limited, a firm of consulting actuaries, conducts a formal actuarial valuation of the Plan annually, as required under the *Pension Benefits Standards Act*.

Deloitte LLP, the Plan's external auditor appointed by the Pension Committee, has conducted an independent audit of the financial statements in accordance with Canadian generally accepted auditing standards, performing such tests and procedures as it considers necessary to express an opinion in its report to the Bank's Board of Directors. The external auditor has full, unrestricted access to the Pension Committee to discuss its audit and related findings as to the integrity of the Plan's financial reporting and the adequacy of internal control systems.



Carolyn A. Wilkins,
Senior Deputy Governor, and
Chair, Pension Committee



Carmen Vierula, CPA, CA,
Chief Financial Officer and Chief Accountant,
and Member, Pension Committee

Ottawa, Canada
June 14, 2018

Actuary's opinion

Mercer (Canada) Limited was retained by the Bank of Canada to perform an actuarial valuation of the going-concern assets and pension obligations of the Bank of Canada Pension Plan (the Plan) as of December 31, 2017, for inclusion in the Plan's financial statements.

The objective of the financial statements is to fairly present the financial position of the Plan as of December 31, 2017 on a going-concern basis, in accordance with Section 4600 *Pension Plans* (Section 4600) of the *Chartered Professional Accountants of Canada (CPA Canada) Handbook*. The assumptions used to estimate the pension obligations of the Plan are the same as those used for the Plan's funding valuation. While the actuarial assumptions used to estimate the pension obligations for the Plan's financial statements represent the Bank of Canada's best estimate of future events, and while in our opinion these assumptions are reasonable for the purposes of these statements, the Plan's future experience will inevitably differ, perhaps significantly, from the actuarial assumptions. Any differences between the actuarial assumptions and future experience will emerge as gains or losses in future valuations, and will affect the financial position of the Plan at that time, as well as the contributions required to fund it.

As part of our valuation, we examined the Plan's recent experience relative to the economic and non-economic assumptions and presented our findings to management. In addition, we provided the Bank of Canada with other relevant information used to develop its long-term assumptions.

Our assessment of the Plan's going-concern assets and pension obligations was based on:

- the results of our January 1, 2018 actuarial valuation of the Plan's going-concern liabilities for funding purposes,
- pension fund data provided by the Bank of Canada as of December 31, 2017,
- methods prescribed under Section 4600 of the CPA Canada Handbook for pension plan financial statements, and
- assumptions about future events that have been developed by the Bank of Canada and Mercer (Canada) Limited.

We have tested the membership and pension fund data for reasonableness and consistency, and we believe it to be sufficient and reliable for the purposes of the valuation. Our valuation has also been performed in accordance with the requirements of the Canadian Institute of Actuaries. Our opinions have been given and our valuation performed in accordance with accepted actuarial practice.



J. Legault
Fellow of the Canadian Institute of Actuaries
Fellow of the Society of Actuaries



S. J. Ramonat
Fellow of the Canadian Institute of Actuaries
Fellow of the Society of Actuaries

Mercer (Canada) Limited

Ottawa, Canada
May 17, 2018

Independent auditor's report

To the Members of the Bank of Canada Board of Directors

We have audited the accompanying financial statements of the Bank of Canada Pension Plan, which comprise the statement of financial position as at December 31, 2017, and the statements of changes in net assets available for benefits and changes in pension obligations for the year then ended, and 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 Canadian accounting standards for pension plans, 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.

Auditor's 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 the 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 the auditor's 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, the auditor considers 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 of Canada Pension Plan as at December 31, 2017, and the changes in its net assets available for benefits and changes in its pension obligations for the year then ended in accordance with Canadian accounting standards for pension plans.

The image shows the signature of Deloitte LLP in a cursive, purple font.

Chartered Professional Accountants
Licensed Public Accountants

Ottawa, Canada
June 14, 2018

Statement of financial position

As at December 31 (in Canadian dollars)

	Note	2017	2016
Assets			
Investments	4	1,780,565,207	1,619,589,832
Accrued investment income		694,051	760,889
		1,781,259,258	1,620,350,721
Liabilities			
Accounts payable and accrued liabilities		1,726,789	1,056,182
		1,779,532,469	1,619,294,539
Net assets available for benefits			
Pension obligations	6	1,210,049,000	1,157,783,000
Pension plan surplus	9	569,483,469	461,511,539

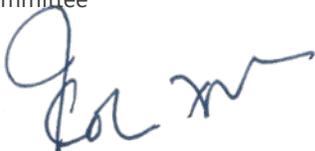
On behalf of the Pension Committee and the Board of Directors of the Bank of Canada



Carolyn A. Wilkins,
Senior Deputy Governor, and Chair, Pension
Committee



Carmen Vierula, CPA, CA,
Chief Financial Officer and Chief Accountant, and
Member, Pension Committee



Colin Dodds,
Member, Board of Directors, and
Member, Pension Committee

(See accompanying notes to the financial statements.)

Statement of changes in net assets available for benefits

For the year ended December 31 (in Canadian dollars)

	Note	2017	2016
Increase in assets			
Investment income	4	74,253,507	83,798,791
Current-year change in fair value of investments	4	112,299,448	35,806,703
		186,552,955	119,605,494
Employer contributions			
Current service	9	24,895,059	23,167,478
Employee contributions			
Current service		8,146,058	7,655,847
Past service		1,149,707	840,520
Transfers from other plans		2,131,983	1,661,541
Total contributions		36,322,807	33,325,386
Total increase in assets		222,875,762	152,930,880
Decrease in assets			
Retirement benefit payments		44,882,317	42,555,113
Termination benefit payments		3,691,472	3,538,161
Disability benefit payments		107,356	105,843
Death benefit payments		4,147,738	3,940,733
Administrative expenses	7	9,808,949	8,256,510
Total decrease in assets		62,637,832	58,396,360
Net increase in net assets available for benefits		160,237,930	94,534,520
Net assets available for benefits, beginning of year		1,619,294,539	1,524,760,019
Net assets available for benefits, end of year		1,779,532,469	1,619,294,539

(See accompanying notes to the financial statements.)

Statement of changes in pension obligations

For the year ended December 31 (in Canadian dollars)

	Note	2017	2016
Increase in pension obligations			
Benefits earned		36,322,807	33,325,386
Interest cost		63,224,148	61,718,000
Experience loss	6	5,547,928	-
Loss on change of assumptions		-	1,721,000
		105,094,883	96,764,386
Decrease in pension obligations			
Retirement benefit payments		44,882,317	42,555,113
Termination benefit payments		3,691,472	3,538,161
Disability benefit payments		107,356	105,843
Death benefit payments		4,147,738	3,940,733
Experience gain		-	7,804,536
		52,828,883	57,944,386
Net increase in pension obligations		52,266,000	38,820,000
Pension obligations, beginning of year		1,157,783,000	1,118,963,000
Pension obligations, end of year		1,210,049,000	1,157,783,000

(See accompanying notes to the financial statements.)

Notes to the financial statements of the Bank of Canada Pension Plan

For the year ended December 31, 2017

1. Description of the Bank of Canada Pension Plan

The following description of the Bank of Canada Pension Plan (the Plan) is a summary only. For more complete information, refer to the text of the Plan ([Bank By-law 15](#)), available on the website of the Bank of Canada (the Bank).

General

The Plan was established under the provisions of the *Bank of Canada Act* (the Act) and has remained in accordance with the Act as subsequently amended. Responsibility for administration and investment of the Plan resides with the Pension Committee, and includes adherence to the guidelines established in the Statement of Investment Policies and Procedures (SIPP) that is approved annually by the Bank's Board of Directors (the Board).

The Plan is a contributory defined-benefit pension plan covering substantially all employees of the Bank. The Plan provides for retirement pensions, survivors' pensions, and refunds occasioned by termination of employment or death. The Plan's registration number with the Office of the Superintendent of Financial Institutions (OSFI) is 55116.

The Plan is a registered plan as defined in the *Income Tax Act* (the ITA) and, consequently, is not subject to income taxes. The Plan's registration number for income tax purposes is 0349233.

The Plan is the sole shareholder of 9439897 Canada Inc. (the Corporation), a corporation registered under the *Canada Business Corporations Act*, whose purpose is to facilitate foreign investment.

In 1992, the Bank of Canada Supplementary Pension Arrangement (the SPA) was introduced to supplement the pensions of those employees who contribute toward pension benefits that are above the maximum prescribed for registered pension plans under the ITA. A separate trust fund has been established to support the SPA and, therefore, the net assets available for benefits and the pension obligations pertaining to the SPA are not included in these financial statements.

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

Benefits

A lifetime retirement pension is available to Plan members based on the number of years of credited service, the average salary of the five highest-paid continuous years of service and the member's age at retirement.

Death benefits are available on the death of an active member or of a retired member. The benefits may take the form of a transfer to the survivor's locked-in retirement vehicle, a survivor pension or a refund of the contributions plus interest.

Upon termination of employment, a Plan member has the option of taking a deferred pension for service rendered or of transferring the commuted value of the pension benefit to a locked-in retirement vehicle.

Pension benefits are indexed annually on January 1 to reflect the changes in the consumer price index.

Funding

Required contributions to the Plan are determined annually by actuarial valuations that are performed in accordance with legislative requirements and with the recommendations of the Canadian Institute of Actuaries (CIA) for the valuation of pension plans.

Plan members are required to contribute a percentage of their pensionable salary to the Plan each year, to a maximum of 35 years of credited service. Contributions are based on plan membership, as follows:

2017 contribution rates by members	Salary below the YMPE ¹	Salary above the YMPE ¹
Per the pre-January 1, 2012 plan design	5.7%	7.5%
Per the post-January 1, 2012 plan design	5.0%	6.5%

¹ The year's maximum pensionable earnings (YMPE) were \$55,300 in 2017 and \$54,900 in 2016.

In accordance with maximums prescribed by the ITA, a member accrues benefits from the plan on a salary up to \$159,547 in 2017 (\$158,225 in 2016). Contributions on earnings above this maximum are made to the SPA.

On June 15, 2017, the Board approved an amendment to Bank By-law 15 that will result in an increase in member contributions to the Plan. The increase will be implemented in two increments, starting on April 1, 2018.

The updated contribution rates based on plan membership will be as follows:

Contribution rates by members	As of April 1, 2018		As of April 1, 2019	
	Salary below the YMPE	Salary above the YMPE	Salary below the YMPE	Salary above the YMPE
Per the pre-January 1, 2012 plan design	7.2%	9.5%	8.7%	11.5%
Per the post-January 1, 2012 plan design	6.5%	8.5%	8.0%	10.5%

2. Basis of preparation

The financial statements of the Plan are prepared in accordance with Canadian accounting standards for pension plans and present the financial position of the Plan, on a going-concern basis, as a separate financial reporting entity, independent of the sponsor and of Plan members. The financial statements are prepared in order to assist Plan members and others in reviewing the activities of the Plan for the fiscal period, but they do not portray the funding requirements of the Plan or the benefit security of individual Plan members.

These financial statements are prepared in accordance with Section 4600 *Pension Plans* (Section 4600) of the *Chartered Professional Accountants of Canada (CPA Canada) Handbook*. International Financial Reporting Standards (IFRS), as set out in Part I of the CPA Canada Handbook, have been chosen for accounting policies that do not relate to the Plan's investment portfolio or pension obligations, to the extent that those standards do not conflict with the requirements of Section 4600.

The Bank's Board of Directors approved the financial statements on June 14, 2018.

Significant accounting judgments, estimates and assumptions

The preparation of 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, as well as other related information.

Management based its judgments, estimates and assumptions 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 management. 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, estimates and assumptions are used primarily in the valuation of real estate funds, and in the calculation of the pension obligations.

Functional and presentation currency

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

3. Significant accounting policies

Investments

Investments are recorded at fair value on the settlement date and are stated at fair value at the reporting date. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Transaction costs are expensed as incurred.

Accrual of income

Interest income, dividends, and other income are recognized on an accrual basis.

Current-year change in the fair value of investments

The current-year change in the fair value of investments is the difference between the fair value and the cost of investments at the beginning and end of each year, adjusted for any realized gains and losses during the year.

Foreign currency translation and foreign exchange forward contracts

Monetary assets and liabilities denominated in foreign currencies are translated into Canadian dollars at the exchange rates prevailing at the reporting date. Foreign exchange forward contracts are measured at fair value as at the reporting date. Gains and losses from translation and foreign exchange forward contracts are included in the current-year change in the fair value of investments. Income and expenses are translated at the rate of exchange prevailing at the time of the transactions.

Pension obligations

Pension obligations are based on an actuarial valuation for funding purposes that is prepared on an annual basis by a firm of independent actuaries, as discussed in Note 6.

Contributions

Employer contributions for current service and special payments to fund any Plan deficits must meet the minimum contributions required based on the most recent actuarial funding valuation report (Note 9).

Employee contributions for current service are recorded in the year in which the related payroll costs are incurred. Contributions for past service are recorded in the year received.

Changes in accounting policies

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

Future changes in accounting policies

IFRS 9 Financial instruments

In July 2014, the International Accounting Standards Board (IASB) issued the final version of IFRS 9 *Financial instruments* (IFRS 9), bringing 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). The IASB has set January 1, 2018 as the mandatory date for the adoption of IFRS 9, although early adoption is permitted. Management has determined that IFRS 9 will not have a significant impact on the Plan's financial statements.

4. Financial instruments

Investments

The SIPP complies with the regulations of the *Pension Benefits Standards Act* (PBSA). The SIPP is updated by the Pension Committee and approved annually by the Board. Compliance with the SIPP is evaluated through ongoing review of investment valuations by management.

The Plan invests in money market instruments, fixed-income securities, equity funds, inflation-linked assets and real estate funds in accordance with its SIPP. To comply with the SIPP, the asset mix must be maintained by asset type within the following ranges:

Asset type	% of total portfolio market value	
	Minimum	Maximum
Total equity, of which:	40	80
Canadian equities	5	25
Foreign equities	15	35
Real estate	10	30
Total bonds, of which:	20	60
Nominal bonds and mortgages	20	50
Price-index-linked assets	5	20
Cash and cash equivalents	-	10

The following table shows the fair value and the cost of investments at the reporting date, as well as the current-year change in the fair value of investments and related income. Investment income includes interest and dividends earned during the year, as well as income from real estate.

As at December 31, 2017	Fair value	Cost	Investment income	Current-year change in fair value of investments ¹	Total return
Money market instruments					
Cash	2,374,625	2,374,625	-	-	-
Short-term investments	5,696,014	5,697,437	71,738	(1,684)	70,054
	8,070,639	8,072,062	71,738	(1,684)	70,054
Fixed-income securities					
Bonds	97,091,633	69,278,274	3,221,340	6,273,924	9,495,264
Fixed-income funds	392,902,262	398,521,324	17,055,947	11,881,341	28,937,288
	489,993,895	467,799,598	20,277,287	18,155,265	38,432,552
Equity funds					
Canadian equity	285,484,713	262,020,349	18,213,329	3,508,259	21,721,588
Foreign equity ²	576,211,531	504,875,256	22,200,131	87,551,099	109,751,230
	861,696,244	766,895,605	40,413,460	91,059,358	131,472,818
Inflation-linked assets					
Canadian marketable bonds	157,838,920	125,224,408	2,408,396	(634,281)	1,774,115
Corporate bonds	3,203,002	2,014,680	121,549	(6,423)	115,126
Mortgages	4,678,603	4,438,918	298,963	(53,674)	245,289
	165,720,525	131,678,006	2,828,908	(694,378)	2,134,530
Real estate funds					
Canadian real estate	82,653,084	77,216,820	3,488,012	1,668,079	5,156,091
Foreign real estate ³	172,430,820	169,277,740	7,174,102	2,112,808	9,286,910
	255,083,904	246,494,560	10,662,114	3,780,887	14,443,001
Total	1,780,565,207	1,620,939,831	74,253,507	112,299,448	186,552,955

1 The 2017 change in the fair value of investments includes \$84,504,828 of realized gains.

2 Foreign equity funds include the fair value of foreign exchange forward contracts of \$3,021,698 as at December 31, 2017, as described in the "Foreign exchange forward contracts" section.

3 Foreign real estate funds include the fair value of foreign exchange forward contracts of -\$898,969 as at December 31, 2017, as described in the "Foreign exchange forward contracts" section.

As at December 31, 2016	Fair value	Cost	Investment income	Current-year change in fair value of investments ¹	Total return
Money market instruments					
Cash	902,012	902,012	-	-	-
Short-term investments	6,894,342	6,893,875	53,535	(613)	52,922
	7,796,354	7,795,887	53,535	(613)	52,922
Fixed-income securities					
Bonds	87,728,148	66,188,713	3,098,010	427,176	3,525,186
Fixed-income funds	344,464,975	360,929,466	18,337,027	(7,666,929)	10,670,098
	432,193,123	427,118,179	21,435,037	(7,239,753)	14,195,284
Equity funds					
Canadian equity	273,763,125	252,902,297	21,485,814	32,375,571	53,861,385
Foreign equity ²	540,235,682	474,347,852	30,755,020	6,311,670	37,066,690
	813,998,807	727,250,149	52,240,834	38,687,241	90,928,075
Inflation-linked assets					
Canadian marketable bonds	144,225,963	110,977,170	2,219,622	1,989,606	4,209,228
Corporate bonds	3,263,422	2,062,728	122,374	13,002	135,376
Mortgages	5,870,476	5,577,117	373,676	(211,863)	161,813
	153,359,861	118,617,015	2,715,672	1,790,745	4,506,417
Real estate funds					
Canadian real estate	79,616,466	75,848,281	4,401,404	(26,517)	4,374,887
Foreign real estate ³	132,625,221	131,129,565	2,952,309	2,595,600	5,547,909
	212,241,687	206,977,846	7,353,713	2,569,083	9,922,796
Total	1,619,589,832	1,487,759,076	83,798,791	35,806,703	119,605,494

1 The 2016 change in the fair value of investments includes \$69,045,510 of realized gains.

2 Foreign equity funds include the fair value of foreign exchange forward contracts of -\$2,597,315 as at December 31, 2016, as described in the "Foreign exchange forward contracts" section.

3 Foreign real estate funds include the fair value of foreign exchange forward contracts of \$411,922 as at December 31, 2016, as described in the "Foreign exchange forward contracts" section.

Financial instrument measurement

The carrying values of accrued investment income, and accounts payable and accrued liabilities approximate their fair values due to their short-term nature, and include no past due or impaired amounts.

Following are descriptions of the methodologies used by management to determine the fair-value measurements of investments held by the Plan.

Money market instruments consist of cash and treasury bills, which are valued using published market quotations.

Fixed-income securities consist of directly owned bonds and investments in bond funds. Directly owned bonds are valued using pricing information compiled by a third-party supplier. Valuations of the bond funds are received on a per unit basis from the asset manager. Valuations are derived from the sum of the fair value of bond fund assets less bond fund liabilities divided by the total number of units outstanding.

Equity funds consist of Canadian and foreign holdings. Foreign equity funds also include the fair value of foreign exchange forward contracts. Investment valuations for the funds are received from the various issuers and are calculated in accordance with their published valuation methodologies. Valuations are derived from the sum of the fair value of equity fund assets determined using published market quotations less equity fund liabilities divided by the total number of units outstanding. The fair value of foreign exchange forward contracts is determined by reference to the forward exchange rate available on a similar contract at the reporting date.

Inflation-linked assets consist mainly of Government of Canada bonds, corporate bonds and mortgages guaranteed by the Canada Mortgage and Housing Corporation. Bonds are valued using pricing information compiled by a third-party supplier. Mortgages are valued on an annual basis with reference to market yields on similar assets at the reporting date.

Real estate funds consist mainly of diversified pooled funds of commercial, industrial and office real estate in several major centres across Canada, the United States and Europe. They are valued at an estimated fair value and are subject to real estate appraisals by independent and accredited appraisers on at least an annual basis. Valuations use one or more of three commonly used methodologies to arrive at an indication of value: the replacement-cost approach, the income approach and the direct-comparison approach.

Fair value hierarchy

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. A financial instrument is classified at the lowest level of the hierarchy for which a significant input has been considered in measuring fair value.

The following table shows the fair value of the Plan'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
Money market instruments	8,070,639	-	-	8,070,639
Fixed-income securities				
Bonds	-	97,091,633	-	97,091,633
Fixed-income funds	-	392,902,262	-	392,902,262
Equity funds				
Canadian equity	-	285,484,713	-	285,484,713
Foreign equity	-	576,211,531	-	576,211,531
Inflation-linked assets				
Canadian marketable bonds	-	157,838,920	-	157,838,920
Corporate bonds	-	3,203,002	-	3,203,002
Mortgages	-	4,678,603	-	4,678,603
Real estate funds				
Canadian real estate	-	-	82,653,084	82,653,084
Foreign real estate	-	-	172,430,820	172,430,820
	8,070,639	1,517,410,664	255,083,904	1,780,565,207

As at December 31, 2016	Level 1	Level 2	Level 3	Total
Money market instruments	7,796,354	-	-	7,796,354
Fixed-income securities				
Bonds	-	87,728,148	-	87,728,148
Fixed-income funds	-	344,464,975	-	344,464,975
Equity funds				
Canadian equity	-	273,763,125	-	273,763,125
Foreign equity	-	540,235,682	-	540,235,682
Inflation-linked assets				
Canadian marketable bonds	-	144,225,963	-	144,225,963
Corporate bonds	-	3,263,422	-	3,263,422
Mortgages	-	5,870,476	-	5,870,476
Real estate funds				
Canadian real estate	-	-	79,616,466	79,616,466
Foreign real estate	-	-	132,625,221	132,625,221
	7,796,354	1,399,551,791	212,241,687	1,619,589,832

There were no transfers of amounts between levels in 2017 (no transfers in 2016).

The following table reconciles the fair value of the real estate funds determined using Level 3 fair-value measurements:

As at December 31	2017	2016
Fair value at beginning of year	212,241,687	75,840,193
Total unrealized gains included in net assets ¹	3,325,504	1,469,139
Purchases	33,177,399	129,906,836
Capitalized dividends	7,808,634	5,751,141
Sales ²	(1,469,320)	(725,622)
Return of capital	-	-
Transfers in/out of Level 3	-	-
Fair value at end of year	255,083,904	212,241,687

1 The fair value gains (losses) are presented in *Current-year change in fair value of investments* in the Statement of changes in net assets available for benefits.

2 Sales are presented net of realized gains of \$13,173 (\$2,820 at December 31, 2016).

Securities lending

The Plan lends securities as a means of generating incremental income or of supporting the normal practice with regard to investment strategies. Securities are loaned only against collateral representing at least 102% of the value of the securities. At December 31, 2017, the Plan's investments included loaned securities with a fair value of \$25,033,577 (\$39,994,292 as at December 31, 2016). The fair value of collateral received in respect of these loans was \$26,514,279 (\$42,015,503 as at December 31, 2016).

Foreign exchange forward contracts

The notional and fair values of foreign exchange forward contracts included in *Foreign equity funds* and *Foreign real estate funds* are summarized in the following table:

As at December 31	2017		2016	
	Notional value	Fair value	Notional value	Fair value
Contracts related to Foreign equity funds				
US dollars	123,652,750	2,454,031	111,808,138	(2,484,378)
Euros	19,734,889	50,999	17,934,333	(165,390)
Japanese yen	15,884,456	155,068	17,485,514	(25,064)
Pounds sterling	13,920,500	348,875	15,709,694	156,520
Swiss francs	7,055,868	82,725	8,400,164	(94,765)
Australian dollars	3,448,550	(70,000)	1,691,701	15,762
	183,697,013	3,021,698	173,029,544	(2,597,315)
Contracts related to Foreign real estate funds				
US dollars	48,328,350	(62,308)	41,952,664	(363,854)
Euros	40,196,923	(836,661)	22,677,024	775,776
	88,525,273	(898,969)	64,629,688	411,922
Total	272,222,286	2,122,729	237,659,232	(2,185,393)

Notional values refer to the face amount of the forward contract to which an exchange rate is applied. The notional value does not represent the total gain or loss to which the Plan will be a party but is the basis upon which the fair value is determined. Accordingly, the notional values are not recorded as assets or liabilities in the financial statements.

The foreign exchange forward contracts are all set to mature within 32 days of December 31, 2017 (within 27 days of December 31, 2016).

The Plan's investments, securities-lending activities and foreign exchange forward contracts are subject to various risks that can affect their fair value, recoverable amount or future cash flows. These risks are discussed in Note 5.

5. Financial instruments and risks

The Plan's financial instruments consist of its investments, accrued investment income, and accounts payable and accrued liabilities. The Plan's investments are subject to credit, liquidity and market risks.

Requirements for asset diversification and investment eligibility serve as basic risk-management tools for the investment portfolio as a whole. The Plan's SIPP requires that its investments be held in a diversified mix of asset types and also sets out investment eligibility requirements. The diversification of assets serves to decrease the variations in the expected return performance of the portfolio. Eligibility requirements serve to ensure that Plan assets, to the extent possible, are not placed at undue levels of risk and can meet the obligations of the Plan as necessary.

While the above policies aid in risk management, the Plan's investments and performance remain subject to risks, the extent of which is discussed below.

Credit risk

Credit risk is the risk that a counterparty to a financial contract will fail to discharge its obligations in accordance with agreed-upon terms.

The Plan is exposed to credit risk through its investments in money market instruments (excluding cash), fixed-income securities and inflation-linked assets, as well as its foreign currency hedging activities (presented in *Foreign equity funds* and *Foreign real estate funds*) and securities-lending transactions.

The Plan's credit risk on money market instruments, fixed-income securities and inflation-linked assets is managed by setting concentration limits on the exposure to any single issuer, as well as by setting minimum credit-rating criteria for investment. The maximum exposure to any one issuer cannot exceed 10% of the total fair value of bond holdings, other than securities issued by the federal or provincial governments. The minimum credit rating for any single security is based on a composite rating from three rating agencies. The minimum rating at the time of purchase must be the equivalent of BBB (low) as determined by the Dominion Bond Rating Service.

Credit risk arising from foreign currency hedging activities and securities-lending transactions is managed by entering into contracts with creditworthy counterparties subject to minimum credit-rating requirements and by setting limits on the allowable amount of exposure to each of these counterparties.

In addition to being fully collateralized with high-quality securities, securities-lending transactions take place under strict adherence to OSFI guidelines and are indemnified through a custodial agreement in the event of default. Securities are loaned only against collateral representing at least 102% of the value of the securities. As a result of the collateral on hand, the net credit exposure is considered insignificant.

The maximum exposure to credit risk in money market instruments, fixed-income securities and inflation-linked assets is estimated to be the fair value of those instruments.

Concentrations of credit risk

Concentrations of credit risk occur when a significant proportion of the portfolio is invested in securities subject to credit risk with similar characteristics or subject to similar economic, political or other conditions. The investment portfolio as a whole is subject to maximum exposure limits and asset-allocation targets that are designed to manage exposure to concentrated credit risk.

The investment portfolio contains concentrated credit risk in money market instruments, fixed-income securities and inflation-linked assets, as follows:

As at December 31, 2017	Money market instruments		Fixed-income securities		Inflation-linked assets	
	\$	%	\$	%	\$	%
Securities issued or guaranteed by:						
Government of Canada	5,696,014	100.0	13,980,331	2.9	142,327,545	85.9
Canadian provinces or municipalities	-	-	316,665,312	64.6	20,189,978	12.2
Corporations	-	-	158,430,220	32.3	3,203,002	1.9
Cash and others¹	-	-	918,032	0.2	-	-
	5,696,014	100.0	489,993,895	100.0	165,720,525	100.0
Credit rating						
AAA to AA	5,696,014	100.0	57,305,571	11.7	137,648,943	83.1
A	-	-	307,165,937	62.7	23,392,979	14.1
BBB	-	-	29,907,753	6.1	-	-
Not rated ^{2, 3}	-	-	95,614,634	19.5	4,678,603	2.8
	5,696,014	100.0	489,993,895	100.0	165,720,525	100.0

As at December 31, 2016	Money market instruments		Fixed-income securities		Inflation-linked assets	
	\$	%	\$	%	\$	%
Securities issued or guaranteed by:						
Government of Canada	6,894,342	100.0	17,183,555	4.0	129,878,662	84.7
Canadian provinces or municipalities	-	-	302,343,547	70.0	20,217,777	13.2
Corporations	-	-	110,205,889	25.5	3,263,422	2.1
Cash and others¹	-	-	2,460,132	0.5	-	-
	6,894,342	100.0	432,193,123	100.0	153,359,861	100.0
Credit rating						
AAA to AA	6,894,342	100.0	66,565,431	15.4	124,008,185	80.9
A	-	-	286,545,103	66.3	23,481,200	15.3
BBB	-	-	30,375,175	7.0	-	0.0
Not rated ^{2, 3}	-	-	48,707,414	11.3	5,870,476	3.8
	6,894,342	100.0	432,193,123	100.0	153,359,861	100.0

1 *Cash and others* includes cash, derivatives and other money market instruments held within fixed-income security funds.

2 *Fixed-income securities* includes private placements that are considered equivalent to investment grade as per the asset manager's credit assessment, but are not directly rated by a credit-rating agency.

3 *Inflation-linked assets* includes mortgages that are guaranteed by the Canada Mortgage and Housing Corporation, but are not directly rated by a credit-rating agency. These assets are considered equivalent to investment grade.

Liquidity risk

Liquidity risk is the risk that the Plan will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or another financial asset.

The Plan's financial liabilities consist of accounts payable and accrued liabilities. These amounts are short term in duration and are set to mature within one year.

Liquidity risk is managed by ensuring that sufficient liquid assets are maintained to meet anticipated payments and investment commitments in general. With respect to the Plan's financial liabilities and the actuarial value of pension obligations, management believes that the Plan is not subject to any significant liquidity risk.

The actuarial value of pension obligations is not considered a financial liability; however, it is the most significant liability of the Plan in the Statement of Financial Position. The Bank, as Plan sponsor, is required to contribute all funds necessary to meet any funding shortfalls of the Plan as they may arise from time to time.

Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: 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 market interest rates. The Plan is exposed to interest rate risk through its investment holdings in interest-bearing or fixed-income assets. These principally include money market instruments and fixed-income securities.

The Plan manages its exposure to interest rate risk by holding a diversified mix of assets, both interest-bearing and non-interest-bearing. This approach decreases the impact of variations in overall portfolio performance owing to factors arising from interest rate risk.

Investments subject to interest rate risk bear fixed rates of interest. Therefore, short-term fluctuations in prevailing interest rates would not normally subject the Plan to fluctuating cash flows. In the event of a sale or redemption prior to maturity, proceeds would be affected by the impact of prevailing interest rates on the fair value of the investment.

The fair value of the Plan's assets, specifically the fair value of fixed-income securities (excluding inflation-linked assets), is affected by changes in the nominal interest rate. A 25-basis-point increase/decrease in the nominal interest rate would have had the following impact on the fair value of implicated investments and the related change in fair value:

As at December 31	2017		2016	
	Increase	Decrease	Increase	Decrease
Money market instruments	(2,274)	2,237	(3,263)	3,254
Fixed-income securities	(19,305,201)	19,305,201	(16,423,339)	16,423,339
Total	(19,307,475)	19,307,438	(16,426,602)	16,426,593

The actuarial value of pension obligations is not considered to be a financial instrument; however, these obligations are sensitive to changes in long-term interest rates. The Plan is exposed to interest rate risk because of mismatches between the impact of interest rates on the actuarial value of pension obligations and their corresponding impact on the investment portfolio as a whole. Given the nature of pension benefits, such risks cannot be eliminated but are addressed through the funding of the Plan and through regular review of the characteristics of the Plan's investment portfolio relative to the pension obligations liability.

A 10-basis-point increase/decrease in the interest rate assumption would have had the following impact on the value of pension obligations:

As at December 31	2017		2016	
	Increase	Decrease	Increase	Decrease
Pension obligations	(17,118,000)	17,533,000	(16,165,000)	16,552,000

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.

The Plan is exposed to currency risk arising from its holdings of investments denominated in foreign currencies, as well as investments that, although not denominated in foreign currencies, have underlying foreign currency exposure. This exposure lies principally within foreign equity and foreign real estate funds.

The Plan manages these risks through its SIPP, which limits the proportion of foreign assets within the portfolio, and through off-balance-sheet commitments in the form of foreign exchange forward contracts for the sale of various currencies (Note 4). The purpose of these contracts is to partially preserve the fair value of Plan assets by offsetting the impact of increases in the Canadian dollar relative to the underlying foreign currency exposure. In the case of a decrease in the Canadian dollar relative to the underlying foreign currency exposure, the foreign exchange forward contracts in place decrease in value, while the relative value of the foreign currency funds increases.

The Plan's net foreign currency exposure in Canadian dollars, after giving effect to the notional value of foreign exchange forward contracts described in Note 4, is presented in the following table:

As at December 31	2017	2016
Net foreign currency exposure		
US dollars	179,779,009	169,482,760
Euros	61,643,058	46,004,433
Korean won	24,754,633	21,664,442
Indian rupees	23,209,492	22,870,342
Hong Kong dollars	20,869,121	34,465,955
Pounds sterling	19,308,636	21,876,338
South African rand	16,453,311	16,003,736
Chinese renminbi	15,928,579	-
Brazilian reais	15,487,869	9,058,755
Japanese yen	14,413,393	15,162,684
Taiwanese dollars	11,523,640	14,252,373
Swiss francs	8,074,005	9,601,083
Other currencies	62,852,590	56,944,162
Total exposure	474,297,336	437,387,063

The fair value of Plan assets, specifically those denominated in foreign currencies, is affected by changes in foreign exchange rates.

The most significant concentrations of net foreign currency exposures are in US dollars, euros, Korean won, Indian rupees and Hong Kong dollars. A 1% increase (decrease) in the foreign exchange rate of a significant foreign currency in which investments are denominated relative to the Canadian dollar would have the following impact on the fair value of investments net of foreign currency hedges:

As at December 31	2017		2016	
	Increase	Decrease	Increase	Decrease
US dollars	1,797,790	(1,797,790)	1,694,828	(1,694,828)
Euros	616,431	(616,431)	460,044	(460,044)
Korean won	247,546	(247,546)	216,644	(216,644)
Indian rupees	232,095	(232,095)	228,703	(228,703)
Hong Kong dollars	208,691	(208,691)	344,660	(344,660)
Total	3,102,553	(3,102,553)	2,944,879	(2,944,879)

This calculation is based on the Plan's direct foreign currency holdings and does not contemplate the effect of any secondary impacts from changes in exchange rates.

Future cash flows relating to the sale or maturity of a financial instrument will vary, depending on the prevailing exchange rate at the time of the transaction.

Other price risk

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate or currency risk), whether those changes are caused by factors specific to the individual financial instrument or its issuer or by factors affecting all similar financial instruments traded in the market.

The Plan is exposed to other price risk through its equity holdings.

The Plan manages these risks through fair diversification, setting maximum allowable proportions of equities in its investment portfolio, and through concentration limits on investments in any one issuer, as outlined in its SIPP. The maximum exposure to any single security cannot exceed 10% of the total fair value of equity holdings, unless such a security is an investment in a pooled or index fund. The maximum exposure to a pooled or index fund can exceed 10% so long as no single security within it exceeds 10% of the market value of that fund.

A 1% increase (decrease) in the underlying market prices in the equities portfolio would have the following impact on the fair value of investments and the net increase in assets:

As at December 31	2017		2016	
	Increase	Decrease	Increase	Decrease
Canadian equity funds	2,854,847	(2,854,847)	2,737,631	(2,737,631)
Foreign equity funds	5,762,115	(5,762,115)	5,402,357	(5,402,357)
Total	8,616,962	(8,616,962)	8,139,988	(8,139,988)

Future cash flows relating to the sale of an investment exposed to other price risk will vary, depending on market prices at the time of sale.

Concentration of other price risk

Concentration of other price risk occurs when a significant portion of the portfolio is invested in equities with similar characteristics or is subject to similar economic, market, political or other conditions.

The following table provides information on the industries in which the equity funds are invested, expressed as a percentage of total holdings:

As at December 31, 2017	Canadian equity funds		Foreign equity funds ¹	
	\$	%	\$	%
Consumer discretionary	21,750,238	7.6	69,759,578	12.2
Consumer staples	18,379,602	6.4	60,133,469	10.5
Energy	47,316,711	16.6	29,058,849	5.1
Financials	87,964,700	30.8	110,395,409	19.1
Health care	2,651,831	0.9	49,946,789	8.7
Industrials	35,871,793	12.6	55,064,711	9.6
Information technology	17,121,312	6.0	102,174,029	17.8
Materials	28,843,403	10.1	37,149,768	6.5
Real estate	8,492,945	3.0	15,976,050	2.8
Telecommunication services	2,863,929	1.0	16,942,204	3.0
Utilities	8,137,502	2.9	19,418,330	3.4
Other	6,090,747	2.1	7,170,647	1.3
Total	285,484,713	100.0	573,189,833	100.0

¹ The *Foreign equity funds* category excludes foreign exchange forward contracts of \$3,021,698 at December 31, 2017.

As at December 31, 2016	Canadian equity funds		Foreign equity funds ¹	
	\$	%	\$	%
Consumer discretionary	17,654,474	6.4	63,164,708	11.6
Consumer staples	17,648,754	6.4	55,982,834	10.3
Energy	51,880,681	19.0	36,974,943	6.8
Financials	86,652,895	31.7	98,882,315	18.2
Health care	1,636,415	0.6	42,261,060	7.8
Industrials	33,002,934	12.1	61,098,911	11.3
Information technology	15,865,958	5.8	96,229,607	17.7
Materials	27,869,013	10.2	36,718,085	6.8
Real estate	5,110,211	1.9	12,367,255	2.3
Telecommunication services	3,059,741	1.1	18,531,728	3.4
Utilities	6,140,931	2.2	13,828,926	2.5
Other	7,241,118	2.6	6,792,625	1.3
Total	273,763,125	100.0	542,832,997	100.0

¹ The *Foreign equity funds* category excludes foreign exchange forward contracts of -\$2,597,315 at December 31, 2016.

6. Pension obligations

Actuarial valuations for funding purposes are required annually under the PBSA. The most recent valuation was performed as at January 1, 2018 by Mercer (Canada) Limited, a firm of consulting actuaries. The economic assumptions used to determine the actuarial value of pension obligations were developed by referencing expected long-term market conditions.

The significant long-term economic actuarial assumptions used in the valuation are as follows:

As at December 31	2017	2016
Discount rate	5.50%	5.50%
Salary escalation rate	3.00% + merit	3.00% + merit
Inflation rate	2.00%	2.00%
Mortality (tables issued by the CIA)	CPM2014Publ (scale CPM-B)	CPM2014Publ (scale CPM-B)
Plan membership		
Active members	1,451	1,424
Pensioners	1,811	1,766
Deferred members ¹	516	519

¹ Deferred members are former employees of the Bank who are entitled to a pension starting in the future.

The experience loss of \$5,547,928 on the pension obligation in 2017 (\$7,804,536 gain in 2016), is primarily driven by the actuarial impact of the Bank's renewed approach to total compensation implemented in 2017, partially offset by lower-than-expected base earnings in 2017 and changes to other economic and demographic experience.

Funding surplus

The surplus for financial statement purposes differs from that calculated on a going-concern funding basis, owing to the use of a smoothed actuarial value of assets for funding purposes. The going-concern funding surplus is calculated in accordance with applicable legislation and actuarial standards.

The actuarial value of net assets available for benefits has been determined using a smoothing method that recognizes excess investment gains and losses occurring in a calendar year on a straight-line basis over five years. Excess gains and losses are determined by reference to the investment-return assumption for going-concern valuation purposes (5.50% at December 31, 2017 and 2016).

A reconciliation of the components of the measurement differences between the surplus on a going-concern funding basis and the surplus for financial statement purposes is as follows:

As at December 31	2017	2016
Funding surplus	466,000,000	410,000,000
Actuarial asset value adjustment	103,483,469	51,511,539
Surplus for financial statement purposes	569,483,469	461,511,539

7. Administrative expenses

As at December 31	Note	2017	2016
Investment management fees		7,609,291	6,219,177
Pension administration fees		704,172	587,526
Audit and actuarial fees		137,178	140,028
Other administration fees	8	1,358,308	1,309,779
Total		9,808,949	8,256,510

Starting on January 1, 2017 and following the filing of an election with the Canada Revenue Agency, the Fund started to account for all actual and deemed supply consumption taxes. This resulted in an increase of expenses subject to these taxes. The incremental consumption taxes recognized, which were previously absorbed by the Bank, represented \$588,000 in 2017.

8. Related parties

Transactions with the Bank were conducted in the normal course of operations during the year and measured at the exchange amount. Included in *Other administration fees* is \$927,198 (\$873,749 in 2016) for administration services provided by the Bank to the Plan.

Key management personnel of the Plan consist of the Pension Committee and the Board, and the Plan is not charged for the compensation of these individuals. If a reasonable allocation of the compensation for key management personnel was performed, the amount would not be significant.

9. Pension plan surplus and capital requirements

The capital of the Plan consists of the pension plan surplus. Excluding the impact of investment income, the Plan is funded through a combination of employee and employer contributions. The pension plan surplus represents the difference between the net assets available for benefits and the pension obligations on a going-concern basis. Actuarial valuations, which aid in the determination of the extent of Plan capital, are performed annually.

Pension plan surpluses or deficits, as they arise, as well as other relevant aspects of the Plan, are managed to comply with the externally imposed requirements of the ITA and the PBSA.

The Bank is responsible for contributing the amount needed above the employees' contributions in order to fund benefits accrued by members during the year (\$24,895,059 in 2017; \$23,167,478 in 2016). In the case of a funding deficit on either a going-concern or solvency basis, additional contributions are required in accordance with the PBSA to fund the deficit. There were no additional contributions in 2017 and 2016.

In the case of a pension plan surplus, the ITA prohibits the making of contributions while the surplus exceeds 125% of the current value of the Plan's liabilities on a going-concern basis, if the Plan is also fully funded on a solvency basis (solvency ratio in excess of 105%).

The January 1, 2018 actuarial valuations results, prepared by the Plan's independent actuaries, are as follows:

- On a going-concern basis, the Plan had an actuarial surplus of \$478 million and a funding ratio of 140%.
- On a solvency basis, the Plan had an actuarial surplus of \$170 million and a solvency ratio of 111%.

As a result, due to the strong funding position of the Plan, both on a going-concern and a solvency basis, regulations under the ITA prohibit the Bank from contributing to the Plan after the actuarial valuation report is filed with regulators. Consequently, the Bank will continue to contribute until the actuarial valuation report filing is made in June 2018; contributions for 2018 are estimated to be \$14.0 million (\$24.9 million in 2017).

At December 31, 2017, the Plan and its sponsor are not in violation of any externally imposed legal or regulatory requirements.