



Report on the Public Service Pension Plan

for the Fiscal Year Ended March 31, 2018



ANNUAL REPORT

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Her Excellency the Right Honourable Julie Payette, C.C., C.M.M., C.O.M., C.Q., C.D. Governor General of Canada

Excellency:

I have the honour to submit to Your Excellency the *Report on the Public Service Pension Plan* for the Fiscal Year Ended March 31, 2018.

Respectfully submitted,

Original signed by

The Honourable Joyce Murray, P.C., M.P.

President of the Treasury Board and Minister of Digital Government

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Message from the President of the Treasury Board and Minister of Digital Government

I am pleased to present the *Report on the Public Service Pension Plan for the Fiscal Year Ended March 31, 2018.* It gives plan members, parliamentarians, and the public information on how the Government of Canada managed this plan in the 2017 to 2018 fiscal year.

The Treasury Board of Canada Secretariat oversees the management of the plan, providing the strategic leadership, governance and administrative oversight that helps ensure its integrity.

As the employer of the federal public service, we recognize that a strong pension plan is key to the government's ability to attract and retain innovative and high-performing employees. These are the people whose efforts on behalf of Canadians contribute to this country's reputation for having the most effective public service in the world.

The Secretariat continues to ensure that the plan provides fair, appropriate and affordable benefits, and remains sustainable. To support the plan, we have recently strengthened our governance with the approval of a formal funding policy for the public sector pension plans. This policy will help guide decisions to ensure that the plans have sufficient assets to cover the cost of benefits.

I would like to thank Canada's federal employees for their ongoing and dedicated service, and for giving us a world-class public service of which we can all be proud.

Original signed by

The Honourable Joyce Murray, P.C., M.P.

President of the Treasury Board and Minister of Digital Government



Message from the Chief Human Resources Officer

Part of my work as Chief Human Resources Officer has been to strengthen the funding governance for the pension plan and the broader oversight role provided by the Treasury Board of Canada Secretariat. Over the past year, we have been making significant progress toward improving and modernizing our systems, tools and practices.

Among our successes in 2018, we finalized a formal funding policy for the public sector pension plans. In addition, net assets reached \$111.1 billion (up from \$98.5 billion last year), supported by equal cash contributions from plan members and from the employer (\$2.4 billion each). These achievements continue to ensure the sustainability of the plan.

Awareness of the availability of online information continues to be strong. There were more than 4.1 million page views on the government's pension and benefits website. This is a testament to the availability of useful information and a demonstration of interest in pension information by current and former federal employees and stakeholders.

As we continue to improve the work we do, this report will help plan members, parliamentarians, and Canadians obtain the information and related services they need to make informed decisions about the public service pension plan.

This report would not be complete without the work of the pension plan's administrator, Public Services and Procurement Canada. I would like to acknowledge their commitment and dedication, as well as that of all those involved in the effective delivery of the Public Service Pension Plan. I look forward to continued collaboration among all our partners to ensure a healthy pension plan now and into the future.

Original signed by

Nancy Chahwan

Chief Human Resources Officer



Introduction

The public service pension plan is a defined benefit pension plan that is funded by contributions from members and the Government of Canada. The pension plan serves 607,587 active and retired members, including survivors and deferred annuitants. The plan is the largest of its kind in Canada in terms of total membership, covering nearly all employees of the Government of Canada. Members include employees of departments and agencies in the federal public service, certain Crown corporations and the territorial governments. The Government of Canada has a legal obligation to pay pension benefits. The public service pension plan has been governed by the *Public Service Superannuation Act*ⁱ since 1954.

Year at a glance





Pension objective

The objective of the *Public Service Superannuation Act*ⁱⁱ and related statutes is to provide a source of lifetime retirement income for retired and disabled public service pension plan members. Upon a plan member's death, the pension plan provides an income for eligible survivors and dependants. Pension benefits are based on a plan member's age, salary and years of pensionable public service.

Highlights for fiscal year ended March 31, 2018

- ▶ The government has reviewed its methodologies for selecting discount rates used in the measurement of its unfunded pension obligations. The review considered industry practices and emerging changes in accounting standards, and resulted in a revised discount rate methodology. This change does not impact pension payments to current retired members or their survivors, nor does it impact future benefits of active plan members. For more information, see Note 3 of the financial statements.
- ▶ Work continued to strengthen governance, in response to the 2014 Auditor General of Canada's performance audit of the public sector pension plans. The Treasury Board of Canada Secretariat, in collaboration with the Royal Canadian Mounted Police and the Department of National Defence, has developed a funding policy for the three main public sector plans. This policy, which strengthens plan governance and sustainability, is available on the Pension and benefits pageⁱⁱⁱ on Canada.ca.
- ▶ To help members keep up-to-date on the plan, information is provided on the Pension and benefits page on Canada.ca. The page had more than 4.1 million views this fiscal year.
- ▶ Leveraging the successful modernization and centralization of federal pension administration, Public Services and Procurement Canada provided high-quality pension services to plan members.

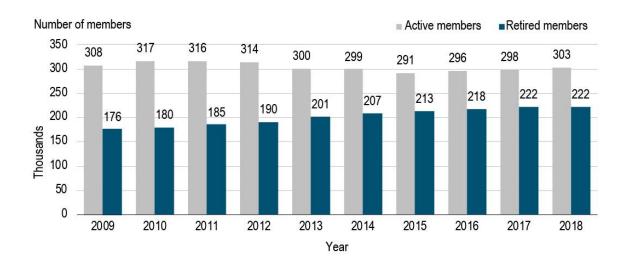


Demographic highlights

Active members and retired members over last 10 years

Figure 1 shows the number of active members relative to the number of retired members for the last 10 years.

Figure 1. Active members and retired members from 2009 to 2018 (fiscal year ended March 31)



In fiscal year ended March 31, 2018, the 10-year annual growth rate¹ for active members was 0.3% (0.5% in the previous year) compared with 2.6% for retired members (2.8% in the previous year).

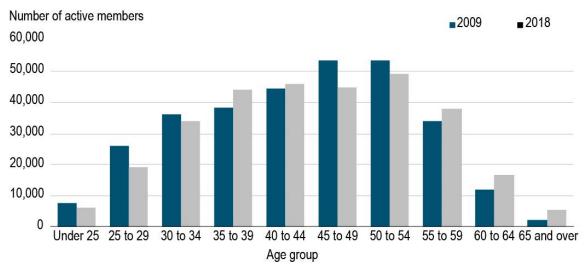
Active members by age group (2009 and 2018)

Figure 2 shows the number of active members by age group in 2018 relative to the number of active members in 2009.

^{1.} The annual growth rate throughout this report is the compounded growth rate or geometric mean, unless otherwise specified.



Figure 2. Active members by age group 2009 and 2018 (fiscal year ended March 31)



Note: The breakdown of members by age group was estimated by applying a pro rata methodology using data from the *Actuarial Report on the Pension Plan for the Public Service of Canada*. Data for 2009 was obtained from the actuarial report as at March 31, 2008, and data for 2018 was obtained from the actuarial report as at March 31, 2017.

Members by membership type (2009 and 2018)

Table 1 shows the breakdown of plan membership by membership type in 2009 and 2018.

Table 1. Comparison of membership type in 2009 and 2018 (fiscal year ended March 31)

Membership type	Number of members 2009	Number of members 2018
Active members	307,965	303,483
Retired members	175,757	222,169
Survivors	58,584	54,115
Deferred annuitants*	5,985	27,820
Total	548,291	607,587

The figure for 2009 represents the number of new deferred annuitants only; these are plan members who left the public service and opted for a deferred annuity during the previous fiscal year. The figure for 2018 represents the total number of deferred annuitants.

From 2009 to 2018, the ratio of active to retired members (including survivors and deferred annuitants) in the public service pension plan declined:

▶ 2009: 1.3 active members to 1 retired member



▶ 2018: 1.0 active member to 1 retired member

Financial overview

Contribution rates

Public service pension plan benefits are funded through compulsory contributions from the employer and from plan members, as well as from investment earnings. To ensure the sustainability of the public service pension plan, contribution rates continue to be maintained at the 50:50 employer-employee cost-sharing ratio. The ratio was reached at the end of 2017.

Generally, if an employee was participating in the plan on or before December 31, 2012, the contribution rates for Group 1 (members with a normal retirement age of 60) are applied. If an employee began participating in the plan on or after January 1, 2013, the contribution rates for Group 2 (members with a normal retirement age of 65) are applied.

Plan members who are employed in operational service with Correctional Service Canada pay Group 1 rates and are entitled to special retirement benefits. Plan members who perform deemed operational service with Correctional Service Canada pay Group 1 rates and make an additional contribution of 0.62% of salary.

As illustrated in Table 2, Group 2 members, who are eligible to receive an unreduced pension benefit at age 65 (5 years later than Group 1 members), pay lower contribution rates than Group 1 members. Because Group 2 members receive a benefit that has a lower overall cost, they pay less than Group 1 members, who are eligible for an unreduced pension at age 60.

Table 2. Employee contribution rates (calendar year)

	2018	2017				
Members who were participating in the plan on or before December 31,	2012 (Group 1)					
On salary up to the year's maximum pensionable earnings**	9.83%	9.47%				
On salary over the year's maximum pensionable earnings	12.13%	11.68%				
Members who began participating in the plan on or after January 1, 2013 (Group 2)						
On salary up to the year's maximum pensionable earnings	8.77%	8.39%				
On salary over the year's maximum pensionable earnings	10.46%	9.94%				

^{*} For pension purposes, salary is the basic pay received for the performance of regular duties.

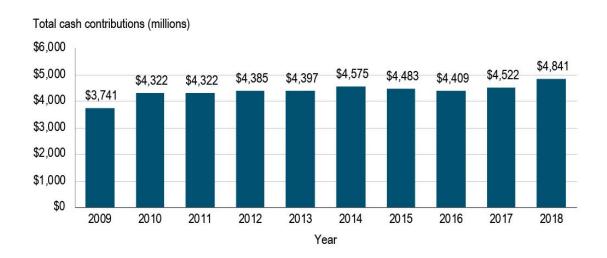


^{**} The year's maximum pensionable earnings in 2018 was \$55,900; in 2017, it was \$55,300.

Cash contributions

Figure 3 shows total cash contributions from both the employer and plan members for the last 10 years.

Figure 3. Total cash contributions from employer and plan members from 2009 to 2018 (fiscal year ended March 31)

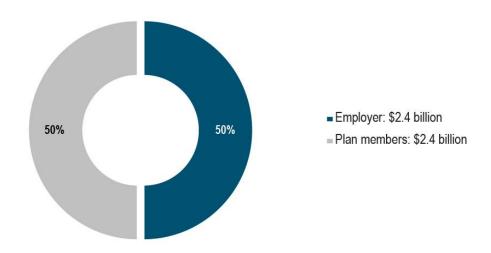


The 10-year annual growth rate of cash contributions from both the employer and plan members was 3.3%. The contributions do not include the year-end accrual adjustments, which are reported in the plan's financial statements.

Figure 4 shows the share of cash contributions by the employer and by plan members as at March 31, 2018.



Figure 4. Share of cash contributions by employer and by plan members (fiscal year ended March 31, 2018)



Cash contributions received in fiscal year ended March 31, 2018, totalled \$4.8 billion (\$4.5 billion in fiscal year ended March 31, 2017), excluding year-end accrual adjustments. The employer contributed \$2.4 billion (\$2.3 billion in fiscal year ended March 31, 2017), and plan members contributed \$2.4 billion (\$2.2 billion in fiscal year ended March 31, 2017).

As shown in Figure 4, the employer paid 50% of total contributions in fiscal year ended March 31, 2018 (51% in fiscal year ended March 31, 2017); plan members paid 50% (49% in fiscal year ended March 31, 2017). Cash contributions in Figure 4 include both current service and past service (for example, service buybacks, pension transfers).

Benefits

In fiscal year ended March 31, 2018, the public service pension plan paid out \$7.4 billion in benefits, which represents an increase of \$255 million over the previous year.

Benefits were paid to 276,284 retired members and survivors in fiscal year ended March 31, 2018 (276,796 in fiscal year ended March 31, 2017).

Of the 13,090 members who retired in fiscal year ended March 31, 2018:

- ▶ 7,641 were entitled to an immediate annuity (6,821 in fiscal year ended March 31, 2017)
- ▶ 1,278 received an annual allowance (1,468 in fiscal year ended March 31, 2017)



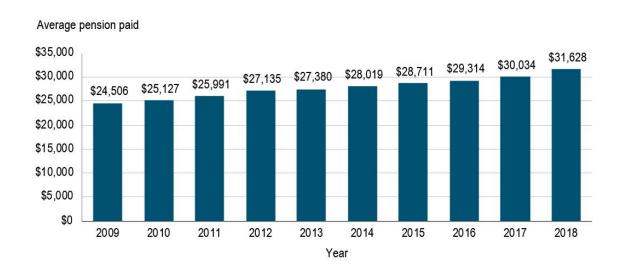
- ▶ 446 were eligible to receive disability retirement benefits (501 in fiscal year ended March 31, 2017)
- ▶ 3,725 were entitled to a deferred annuity (532 in fiscal year ended March 31, 2017)

In fiscal year ended March 31, 2018, a total of 1,618 plan members left the public service before the age of 55 (1,796 in fiscal year ended March 31, 2017) and withdrew approximately \$232 million (\$274 million in fiscal year ended March 31, 2017) in lump-sum amounts (in other words, the present value of their future benefits), excluding return of contributions for non-vested members. These sums were transferred to other registered pension plans, to locked-in retirement savings vehicles or to financial institutions to purchase annuities. Any portion of a transfer value that exceeds the limit set by the *Income Tax Act*^{iv} is paid in a lump sum and is taxable.

The average annual pension for members who retired in fiscal year ended March 31, 2018, was \$37,391, compared with \$37,785 for members who retired in fiscal year ended March 31, 2017. This represents a decrease of 1.0%. The average pension paid to all retired members was \$31,628 in fiscal year ended March 31, 2018 (\$30,034 in fiscal year ended March 31, 2017), an increase of 5.3% over fiscal year ended March 31, 2017.

Figure 5 presents the average pension paid to retired members for the last 10 years.

Figure 5. Average pension paid to retired members from 2009 to 2018 (fiscal year ended March 31)

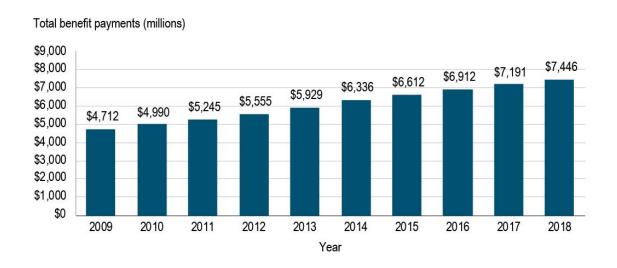




Pensions paid under the public service pension plan are indexed annually to take into account the cost of living, which is based on increases in the Consumer Price Index. In 2018, the indexation rate was 1.5% (1.4% in 2017).

Figure 6 presents the total amount of benefits paid to plan members and survivors each year from 2009 to 2018.

Figure 6. Total benefit payments to plan members and survivors (fiscal year ended March 31)

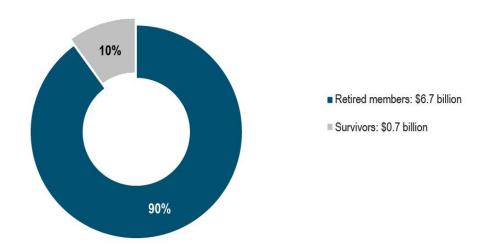


Benefit payments have increased on average by 5.3% annually over the past 10 years. For details, see the "Summary of plan benefits" section.

Figure 7 presents the share of benefits paid to retired members and to survivors in fiscal year ended March 31, 2018.



Figure 7. Benefit payments to retired members and to survivors (fiscal year ended March 31, 2018)



Benefits paid to retired members in fiscal year ended March 31, 2018, totalled \$6.7 billion (\$6.4 billion in fiscal year ended March 31, 2017), including benefits paid to plan members who retired on grounds of disability, which represents 90% of pension payments paid in the year.

Benefits paid to survivors in fiscal year ended March 31, 2018, totalled \$0.7 billion (\$0.8 billion in fiscal year ended March 31, 2017), which represents 10% of pension payments paid in the year.

Investment returns

Rate of return

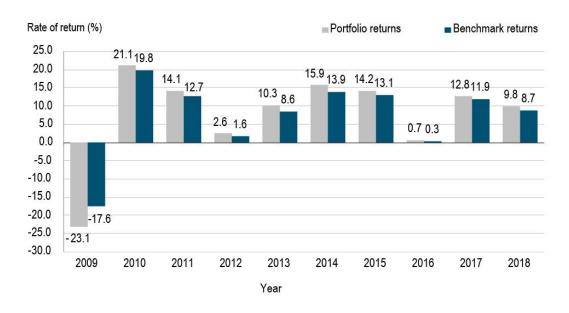
For fiscal year ended March 31, 2018, the Public Sector Pension Investment Board (PSPIB) reported a net rate of return of 9.8% (12.8% in fiscal year ended March 31, 2017), compared with the benchmark rate of return of 8.7% (11.9% in fiscal year ended March 31, 2017).

Over the past 10 years, the PSPIB has recorded a net annualized rate of return of 7.1%, compared with the long-term return objective of 5.8% over the same period.

Figure 8 shows the rate of return on the assets held by the PSPIB against its comparative benchmark for the last 10 years.



Figure 8. Rate of return on assets held by the PSPIB from 2009 to 2018 (fiscal year ended March 31)



More information on the rate of return on assets held by the PSPIB and comparative benchmarks is available on the PSP Investments website.

Net value of assets

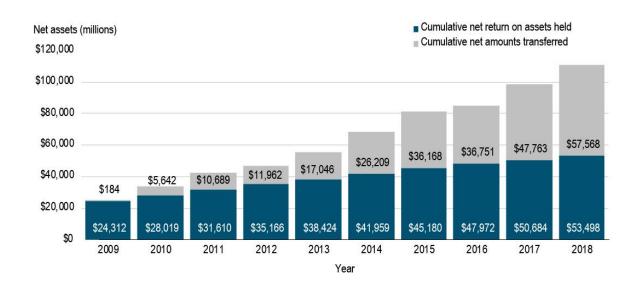
In 2018, the net value of assets reached \$111.1 billion, which can be broken down as follows:

- ▶ \$53.5 billion (48.2%): the cumulative net amount transferred from the Government of Canada to the PSPIB since its inception in 2000
- ▶ \$57.6 billion (51.8%): the cumulative net return on assets held

Figure 9 presents the net value of public service pension plan assets held by the PSPIB each year for the last 10 years.







Administrative expenses

The legislation provides for the pension-related administrative expenses of certain government organizations to be charged to the public service pension plan:

- ▶ Treasury Board of Canada Secretariat
- ▶ Public Services and Procurement Canada
- ▶ Health Canada
- ▶ Office of the Chief Actuary

Administrative expenses also include PSPIB operating expenses.

Figure 10 presents the administrative expenses charged to the public service pension plan each year for the past 10 years, as shared between government departments and the PSPIB.



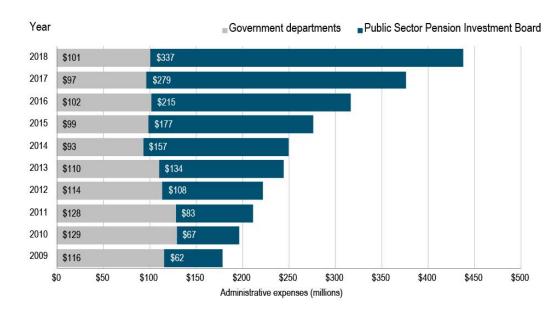


Figure 10. Administrative expenses from 2009 to 2018 (fiscal year ended March 31)

The following explains the fluctuations in administrative expenses shown in Figure 10.

2009 to 2010

The increase in administrative expenses for government departments from 2009 to 2010 was due in large part to the capital expenditure requirements related to the pension modernization project that started in fiscal year ended March 31, 2008. This project was completed in January 2013.

2011 to 2014

The decrease in administrative expenses for government departments from 2011 to 2014 was due to the completion of the centralization of pension services that started in fiscal year ended March 31, 2007.

2015 to 2016

The increase in administrative expenses in 2015 and 2016 was due to an increase in system maintenance costs.

2016

Starting in 2016, the increase in the PSPIB's operating expenses has stemmed primarily from the growth in the assets under its management. In response to the larger portfolio, the Board strengthened its internal investment management capabilities, increased staffing, opened international offices and upgraded several systems.



2017

In fiscal year ended March 31, 2017, the PSPIB's cost ratio increased to 70.5 cents per \$100 of average net investment assets, up from 63.0 cents per \$100 in fiscal year ended March 31, 2016. This increase is due to increased operating expenses, as well as increased management fees and transaction costs related to private market investment activities.

2018

The total cost ratio decreased from 70.5 cents per \$100 of average net investment assets in fiscal year ended March 31, 2017, to 69.8 cents per \$100 in fiscal year ended March 31, 2018. Although there was an increase in operating expenses, it was offset by a decrease in management fees and transactions costs for assets under management.

See Note 21 of the financial statements for more details on administrative expenses.

Roles and responsibilities

Overall responsibility for the public service pension plan lies with the President of the Treasury Board, supported by the Treasury Board of Canada Secretariat, as the administrative arm of the Treasury Board. Public Services and Procurement Canada is the day-to-day administrator of the plan.

The President's responsibilities include ensuring that the plan is adequately funded to fully cover member benefits. To determine the plan's funding requirements, the President enlists the help of the Office of the Chief Actuary, to provide advice and a range of actuarial services, as well as the Public Sector Pension Investment Board (PSPIB), to manage the pension assets for the public sector pension plans. The Public Service Pension Advisory Committee advises the President on the administration, design and funding of the benefits and on other pension-related matters referred to it by the President.

The roles and responsibilities of each organization are as follows.

Treasury Board of Canada Secretariat

The Secretariat supports the Treasury Board's role as the employer of the public service by developing policy for the funding, design and governance of the plan and of other retirement programs and arrangements. In addition, the Secretariat provides strategic direction, program advice and interpretation; develops legislation; liaises with stakeholders; communicates with plan members; and prepares the annual report on the Public Service Pension Plan.



Public Services and Procurement Canada

Public Services and Procurement Canada is responsible for the day-to-day administration of the public service pension plan. This includes developing and maintaining the public service pension systems, books of accounts, records, and internal controls, as well as preparing the account transaction statements for reporting in the Public Accounts of Canada.

In addition, Public Services and Procurement Canada processes payments and carries out all accounting and financial administrative functions. Through its pay and pension services, Public Services and Procurement Canada ensures that federal government employees receive their pay and that retired pension plan members receive their pension benefits payments.

Public Sector Pension Investment Board

The PSPIB is a non-agent Crown corporation established under the *Public Sector Pension Investment Board Act*. Vi It is governed by an 11-member board of directors and reports to the President of the Treasury Board.

In accordance with its mandate, the PSPIB's statutory objectives are to manage the funds transferred to it in the best interests of the contributors and beneficiaries, and to invest its assets with a view to achieving a maximum rate of return without undue risk of loss, having regard to the funding, policies and requirements of the pension plan.

Since April 1, 2000, the PSPIB has been investing, on behalf of the public sector pension plans, the amounts transferred to it by the Government of Canada. The relevant financial results of the PSPIB are included in the financial statements in this report.

Office of the Chief Actuary

The Office of the Chief Actuary, vii an independent unit within the Office of the Superintendent of Financial Institutions Canada, provides a range of actuarial services and advice to the Government of Canada on the public service pension plan. The Office of the Chief Actuary conducts a statutory valuation of the pension plan for funding purposes at least every 3 years, and conducts a valuation for accounting purposes every year. Details can be found in the "Financial statements content overview" section.

Public Service Pension Advisory Committee

The Public Service Pension Advisory Committee, established under the *Public Service Superannuation Act*, viii provides advice to the President of the Treasury Board on matters relating to the administration of the public service pension plan, the design of the benefit plan, and the funding of benefits.



The Committee has 13 members:

- ▶ 1 pensioner representative, nominated by the public servant pensioner association
- ▶ 6 employee representatives, nominated by the National Joint Council of the Public Service of Canada
- ▶ 6 members nominated by the President of the Treasury Board, traditionally chosen from the executive ranks of the public service

All members are appointed by the Governor in Council to hold office for a term not exceeding 3 years, and they are eligible for reappointment for one or more additional terms.

Summary of plan benefits

The following is an overview of the main benefits offered under the public service pension plan as at March 31, 2018. If there is a discrepancy between this information and information contained in the *Public Service Superannuation Act*, ix the *Public Service Superannuation Regulations* or other applicable laws, the legislation prevails at all times.

Types of pension benefits

The benefits that pension plan members are entitled to when they leave the public service depend on their age and the number of years of pensionable service to their credit (see Tables 3 and 4).



Table 3. Members who were participating in the plan on or before December 31, 2012 (Group 1)²

If a member is	and leaves the public service with pensionable service of	the member would be entitled to
Age 60 or over	At least 2 years	An immediate annuity
Age 55 or over	At least 30 years	An immediate annuity
Age 50 up to age 60	At least 2 years	A deferred annuity payable at age 60 or An annual allowance payable as early as age 50
Under age 50	At least 2 years	A deferred annuity payable at age 60 or An annual allowance payable as early as age 50 or A transfer value
Under age 60	At least 2 years and retiring because of disability	An immediate annuity
Any age	Less than 2 years	A return of contributions with interest

Table 4. Members who were participating in the plan on or after January 1, 2013 (Group 2)

If a member is	and leaves the public service with pensionable service of	the member would be entitled to		
Age 65 or over	At least 2 years	An immediate annuity		
Age 60 or over	At least 30 years	An immediate annuity		
Age 55 up to age 65	At least 2 years	A deferred annuity payable at age 65 or An annual allowance payable as early as age 55		
Under age 55	At least 2 years	A deferred annuity payable at age 65 or An annual allowance payable as early as age 55 or A transfer value		
Under age 65	At least 2 years and retiring because of disability	An immediate annuity		
Any age	Less than 2 years	A return of contributions with interest		

^{2.} Members of the public service pension plan who are employed in operational service are entitled to different retirement benefits and should consult the Operational Service Provisions page on Canada.ca (https://www.canada.ca/en/treasury-board-secretariat/services/pension-plan/plan-information/operational-service-provisions.html).



Protection from inflation

Pensions paid under the public service pension plan are indexed annually to take into account the cost of living, which is based on increases in the Consumer Price Index.

Survivor benefits

If a member is vested (has at least 2 years of pensionable service) when he or she dies, the eligible survivor and children are entitled to the following:

- ▶ **Survivor benefit:** A monthly allowance equal to half of the member's unreduced pension, payable immediately to the eligible survivor for the rest of the survivor's life.
- ▶ Child allowance: A monthly allowance equal to 10% of the member's unreduced pension (20% of the member's unreduced pension if the member has no eligible survivor). The amount is payable until age 18, or until age 25 if the child is a full-time student. The maximum allowance for all children is 40% of the member's pension, or 80% if there are dependent children but no spouse eligible for a survivor benefit.
- ▶ Supplementary death benefit: A lump-sum benefit equal to twice the member's annual salary, rounded-up to the nearest \$1,000, payable to the designated beneficiary or to the estate. Coverage decreases by 10% each year starting at age 66 to a minimum of \$10,000 by age 75. If the member is still employed in the public service after age 65, minimum coverage is the greater of \$10,000 or one third of his or her annual salary.

If the member has no eligible survivor or children, the designated beneficiary of the supplementary death benefit or the estate will receive an amount equal to the greater of the return of contributions with interest or 5 years of pension payments less any payments already received.

If a member dies before they are vested (has completed 2 years of pensionable service), contributions with interest are refunded to any eligible survivor or children, or to the designated beneficiary or the estate if the member has no eligible survivors.

Communications with plan members

The Government of Canada recognizes that the public service pension plan is an integral part of the public service workforce recruitment, retention and renewal strategy, and it is committed to providing timely and accurate information about the plan to members. To fulfill this commitment, the government has focused on a number of initiatives designed to raise awareness and to educate plan members. These initiatives include:

- providing plan information through various publications
- increasing in-person outreach



- ensuring that information on the Pension and benefits web page^{xi} is in plain language
- expanding the pension plan's social media presence on Facebook and on Twitter (hashtag #pensiontalk)

Public service pension plan history

1870

The first act entitling certain public service employees to retirement income came into effect.

1954

The public service pension plan took many forms until the *Public Service Superannuation Act* came into effect on January 1, 1954, and broadened pension coverage to include nearly all public service employees.

1966

The Canada Pension Plan and the Québec Pension Plan were introduced, leading to major amendments to the *Public Service Superannuation Act* to coordinate public service pension plan contribution rates and benefits with those of the 2 new plans.

1999 to 2000

Amendments were made to the *Public Service Superannuation Act*, including changes aimed at improving plan management and introducing the *Public Sector Pension Investment Board Act*. This act provided for the creation of the Public Sector Pension Investment Board (PSPIB) in April 2000. Before that, employer and member contributions to the plan were credited to an account that was part of the Public Accounts of Canada and were not invested in capital markets (for example, in stocks and bonds).

In April 2000, the government began transferring to the PSPIB amounts equal to pension contributions net of benefit payments and departmental administrative expenses for the plan.

2006

The *Public Service Superannuation Act* was amended to lower the factor used in the Canada Pension Plan or Québec Pension Plan coordination formula to calculate a pension at age 65. This change increased public service pension benefits for members reaching age 65 in 2008 or later.



2012

The *Public Service Superannuation Act* was amended to allow pension plan member contribution rates to be gradually increased to reach a 50:50 employer-employee cost-sharing ratio by the end of 2017.

The age of eligibility for an unreduced pension benefit was increased from 60 to 65 for new public service employees who began participating in the plan on or after January 1, 2013.



Overview of financial statements

Financial and performance audits

The Office of the Auditor General of Canada audits federal government operations and provides Parliament with independent information, advice and assurance to help hold the government to account for its stewardship of public funds. The Office of the Auditor General of Canada is responsible for conducting performance audits and studies of federal departments and agencies. It conducts financial audits of the Public Accounts of Canada (the government's financial statements) and performs special examinations and annual financial audits of Crown corporations, including the Public Sector Pension Investment Board (PSPIB). With respect to the public service pension plan, the Office of the Auditor General of Canada acts as the independent auditor.

Actuarial valuation

Pursuant to the *Public Pensions Reporting Act*, ^{xii} the President of Treasury Board directs the Chief Actuary of Canada to conduct an actuarial valuation for funding purposes at least every 3 years. The purpose of the actuarial review is to determine the state of the pension account and pension fund, as well as to assist the President of the Treasury Board in making informed decisions regarding the financing of the government's pension obligations. The last funding valuation was conducted as at March 31, 2017.

In addition, the Office of the Chief Actuary performs an annual actuarial valuation for accounting purposes, which serves as the basis for determining the government's pension obligations and expenses reported in the Public Accounts of Canada and in the public service pension plan's financial statements included in this annual report. The economic assumptions used in the annual actuarial valuation represent management's best estimate.

Net assets available for benefits

The Statement of Financial Position shows that as at March 31, 2018, net assets available for benefits were \$112.3 billion compared with \$99.9 billion last year. The net assets available for benefits mainly consist of the assets managed by the PSPIB on behalf of the pension plan and contributions receivable for past service elections.

The Statement of Changes in Net Assets Available for Benefits shows increases and decreases to the public service pension plan from various sources.

Increases can come from the following:

- contributions from pension plan members and employers
- income from investments



▶ transfers to the public service pension plan from other pension plans when employees leave an outside organization and join an employer covered under the *Public Service* Superannuation Act^{xiii}

Decreases can come from the following:

- benefits
- administrative expenses
- transfers or refunds from the public service pension plan to other registered pension plans

Detailed information can be found in the financial statements.

Investment management

Contributions relating to service since April 1, 2000, are recorded in the Public Service Pension Fund in the Public Accounts of Canada. An amount equal to contributions net of benefit payments and government departments' administration expenses is transferred regularly to the PSPIB and is invested in capital markets.

The PSPIB's board of directors has established an investment policy with an expected real rate of return at least equal to the return assumption used to fund the plan, which at March 31, 2018, was set at an annual real return of 3.3% for the next 10 years, reaching an annual real return of 4.0% after that. This rate is aligned with the assumption used in the most recently tabled actuarial valuation for funding purposes of the public sector pension plans (public service, Canadian Forces, Reserve Force and Royal Canadian Mounted Police).

As noted in the PSPIB's 2018 annual report, the investments allocated to the public service pension plan during the year ended March 31, 2018, were in compliance with the *Public Sector Pension Investment Board Act* and the statement of investment policies, standards and procedures approved by its board of directors.

Pension obligations

The Statement of Changes in Pension Obligations shows the present value of benefits earned for service to date that will be payable in the future. For fiscal year ended March 31, 2018, the value of pension obligations was \$207.6 billion (\$204.7 billion in fiscal year ended March 31, 2017), an increase of \$2.9 billion from the previous fiscal year. The increase is due primarily to interest earned during the year on the pension obligations and pension benefits.



Assets held by the Public Sector Pension Investment Board

In accordance with the investment policy, assets held by the PSPIB are invested with the following long-term target weights (as at March 31, 2018):

- ▶ 43.0% in public market and private equities
- ▶ 30.0% in real assets, such as real estate, infrastructure and natural resources
- ▶ 20.0% in government fixed income, cash and cash equivalents
- ▶ 7.0% in credit

In fiscal year ended March 31, 2018, assets earned a net rate of return of 9.8%. See Note 6 of the financial statements or to the PSP Investments website^{xiv} for more details.

Interest credited to the Public Service Superannuation Account

The Public Service Superannuation Account is credited quarterly with interest at rates calculated as though amounts recorded in this account were invested quarterly in a notional portfolio of Government of Canada 20-year bonds held to maturity. No formal debt instrument is issued to this account by the government in recognition of the amounts in it. The reduction in interest credited to the account relates to declining bond interest rates. The interest credited to the Public Service Superannuation Account is no longer recognized as interest income in the Statement of Changes in Net Assets Available for Benefits and is reported only in the "Account transaction statements" section of this report.

Table 5 shows the annualized interest rate credited for the past 10 years.

Table 5. Annualized interest rate credited to the superannuation account from 2009 to 2018 (fiscal year ended March 31)

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Interest rate on account (%)	7.0	6.7	6.5	6.0	5.6	5.4	5.1	4.7	4.4	4.2

Administrative expenses

Pension-related administrative expenses of the following government organizations are charged to the public service pension plan:

- ▶ Treasury Board of Canada Secretariat
- ▶ Public Services and Procurement Canada
- ▶ Health Canada
- Office of the Chief Actuary



Administrative expenses of the plan also include the PSPIB's operating expenses. Investment management fees are either paid directly by the PSPIB or offset against distributions received from the investments.

In fiscal year ended March 31, 2018, total expenses recorded by the pension plan were as follows:

- government departments: \$101 million (\$97 million in fiscal year ended March 31, 2017)
- ▶ PSPIB: \$337 million (\$279 million in fiscal year ended March 31, 2017)

Transfer agreements

The public service pension plan has transfer agreements with other levels of government, universities and private sector employers.

In fiscal year ended March 31, 2018, transfers in and out of the plan under these agreements were as follows:

- transfers in: \$51 million (\$28 million in fiscal year ended March 31, 2017)
- transfers out: \$37 million (\$36 million in fiscal year ended March 31, 2017)

Retirement compensation arrangements

Under the authority of the *Special Retirement Arrangements Act*, ^{xv} separate Retirement Compensation Arrangements No. 1 and No. 2 have been established to provide supplementary benefits to some employees. Because these arrangements are covered by separate legislation, the balance and corresponding value of their accrued pension benefits is not consolidated in the public service pension plan's financial statements. A summary of these arrangements is provided in Note 23 to the financial statements.

Retirement Compensation Arrangement No. 1 provides for benefits in excess of those permitted under the *Income Tax Act*^{xvi} for registered pension plans. In 2018, this primarily included benefits on salaries over \$164,700 (\$163,100 in 2017), plus some survivor benefits.

Retirement Compensation Arrangement No. 2 provides for pension benefits to public service employees declared surplus as a result of the 3-year Early Retirement Incentive Program that ended on March 31, 1998, which allowed eligible employees to retire with an unreduced pension.

Contributions and benefit payments in excess of limits permitted under the *Income Tax Act* for registered pension plans are recorded in the Retirement Compensation Arrangements Account in the Public Accounts of Canada. The balance in the Retirement Compensation Arrangements Account is credited with interest at the same rate as that of the Public Service Superannuation Account.



Further information

Additional information concerning the public service pension plan is available at the following sites:

- ▶ Pension and benefits^{xvii}
- ▶ Pay, pension and benefits^{xviii}
- ▶ Public Service Superannuation Act^{xix}
- ► PSP Investments^{xx}
- ▶ Office of the Chief Actuary^{xxi}



Account transaction statements



Public Service Superannuation Account

Prior to April 2000, all pension transactions accumulated in relation to the pension plan were accounted for, and recorded in, the Public Service Superannuation Account in the Public Accounts of Canada (to the extent that any funds held in the Consolidated Revenue Fund had been earmarked specifically for the pension plan).

The Superannuation Account does not consist of cash or marketable securities. It is used to record transactions such as contributions, benefit payments, interest, administrative expenses and other charges that pertain to service prior to April 1, 2000.

The interest is credited quarterly at rates calculated as though the net cash flows were invested quarterly in 20-year Government of Canada bonds issued at prescribed rates and held to maturity.



Public Service Superannuation Account transaction statement (fiscal year ended March 31)

	2018	2017
Opening balance (A)	\$94,209,273,550	\$95,566,249,001
Receipts and other credits		
Employee contributions		
Government employees	1,315,935	1,501,715
Retired employees	6,815,848	9,012,222
Public service corporation employees	173,134	154,532
Employer contributions		
Government	6,835,107	8,770,006
Public service corporations	242,136	126,595
Actuarial liability adjustment	0	0
Transfers from other pension funds	166,299	5,009
Interest	3,829,428,464	4,128,334,225
Total receipts and other credits (B)	\$3,844,976,923	\$4,147,904,304
Payments and other charges		
Annuities	\$5,413,342,616	\$5,380,371,208
Minimum benefits	15,545,715	18,161,964
Pension division payments	17,052,340	26,427,720
Pension transfer value payments	13,257,051	20,129,143
Returns of contributions		
Government employees	317,101	379,702
Public service corporation employees	19,162	41,739
Transfers to other pension funds	3,460,193	4,093,957
Administrative expenses	54,895,880	55,274,322
Total payments and other charges (C)	\$5,517,890,058	\$5,504,879,755
Receipts less payments (B - C) = (D)	\$(1,672,913,135)	\$(1,356,975,451)
Closing balance (A + D)	\$92,536,360,415	\$94,209,273,550

The above account transaction statement is unaudited.



Public Service Pension Fund

All pension transactions related to service accrued since April 1, 2000, are recorded in the Public Service Pension Fund in the Public Accounts of Canada. An amount equal to contributions in excess of benefit payments and government organizations' administrative expenses is transferred regularly to the Public Sector Pension Investment Board (PSPIB) for investment. The balance in the Public Service Pension Fund at year-end represents net contributions transferable to the PSPIB.

The treatment of any actuarial surplus or deficit in the fund is outlined in the financial statements of the Public Service Pension Plan, which are included in this report.

As a result of the actuarial valuation of the pension plan that was tabled in Parliament on January 25, 2016, an annual actuarial adjustment payment of \$340 million was made in fiscal year ended March 31, 2018 (\$340 million in the previous year).

The *Public Service Superannuation Act* requires that any actuarial deficit be dealt with by transferring equal instalments to the pension fund over a period of up to 15 years, starting in the year in which the actuarial report is tabled in Parliament.



Public Service Pension Fund account transaction statement (fiscal year ended March 31)

	2018	2017
Opening balance (A)	\$322,529,984	\$355,052,200
Receipts and other credits		
Employee contributions		
Government employees	2,169,100,496	1,919,728,160
Retired employees	45,516,546	45,599,636
Public service corporation employees	199,435,058	189,381,592
Employer contributions		
Government	2,175,183,716	2,125,185,996
Public service corporations	196,270,115	206,551,912
Actuarial liability adjustment	340,000,000	340,000,000
Transfers from other pension funds	42,461,065	26,607,302
Transfer value election	8,200,876	1,874,328
Total receipts and other credits (B)	\$5,176,167,872	\$4,854,928,926
Payments and other charges		
Annuities	\$2,001,624,358	\$1,779,822,584
Minimum benefits	15,266,575	12,206,438
Pension division payments	36,665,209	38,740,034
Pension transfer value payments	218,599,278	254,365,622
Returns of contributions		
Government employees	10,757,037	7,973,419
Public service corporation employees	3,886,809	3,960,135
Transfers to other pension funds	36,975,930	36,371,533
Administrative expenses	45,960,045	41,664,160
Total payments and other charges (C)	\$2,369,735,241	\$2,175,103,925
Receipts less payments (B - C)	\$2,806,432,631	\$2,679,825,001
Transfers to PSPIB (D)	\$(2,814,187,268)	\$(2,712,347,217)
Closing balance (A + B - C + D)	\$314,775,347	\$322,529,984

The above account transaction statement is unaudited.



Retirement Compensation Arrangements

Supplementary benefits for certain federal public service employees are provided under the *Retirement Compensation Arrangements Regulations, No. 1*, xxii Parts I and II (public service portion), and the *Retirement Compensation Arrangements Regulations, No. 2* xxiii (Early Retirement Incentive Program). These regulations were established under the *Special Retirement Arrangements Act* for the purpose of paying benefits and established the Retirement Compensation Arrangements for the payment of benefits.

Transactions pertaining to Retirement Compensation Arrangement No. 1 and Retirement Compensation Arrangement No. 2, such as contributions, benefits and interest credits, are recorded in the Retirement Compensation Arrangements Account in the Public Accounts of Canada. The Retirement Compensation Arrangements Account is credited with interest quarterly at the same rates as those credited to the Public Service Superannuation Account.

The Retirement Compensation Arrangements Account is registered with the Canada Revenue Agency, and a transfer is made annually between the Retirement Compensation Arrangements Account and the Canada Revenue Agency either to remit a 50% refundable tax for the net contributions and interest credits or to be credited a reimbursement based on the net benefit payments.

Any actuarial shortfalls found between the balance and the actuarial liabilities in the Retirement Compensation Arrangements Account are credited to the Retirement Compensation Arrangements Account in equal instalments over a period of up to 15 years. These adjustments are based on triennial actuarial valuations.

For fiscal year ended March 31, 2018, as in fiscal year ended March 31, 2017, no credit adjustment was made to Retirement Compensation Arrangement No. 1 or No. 2.



Retirement Compensation Arrangement No. 1

For tax purposes, financial transactions related to pension plan members' pensionable earnings over \$164,700 in calendar year 2018, are recorded separately.

For fiscal year ended March 31, 2018, there were 4,765 public service employees (4,896 in the previous year) and 21,385 retired members and dependants (14,214 in the previous year) in this category.

Retirement Compensation Arrangement No. 1 account transaction statement (fiscal year ended March 31)

	2018	2017
Opening balance (A)	\$1,193,245,711	\$1,163,127,305
Receipts and other credits		
Employee contributions		
Government employees	8,980,064	6,579,649
Retired employees	569,949	384,934
Public service corporation employees	2,374,935	2,188,425
Employer contributions		
Government	67,312,931	44,338,063
Public service corporations	17,247,731	13,569,038
Actuarial liability adjustment	0	0
Interest	50,240,945	51,842,117
Transfer from other pension funds	0	1,846
Transfer value election	356	(974)
Total receipts and other credits (B)	\$146,726,911	\$118,903,098
Payments and other charges		
Annuities	\$45,045,351	\$40,723,826
Minimum benefits	39	161,842
Pension division payments	271,948	643,887
Pension transfer value payments	634,514	555,752
Returns of contributions		
Government employees	69,079	15,601
Public service corporation employees	7,769	11,540



	2018	2017
Transfers to other pension plans	1,038,273	39,685
Refundable tax	51,729,846	46,632,558
Total payments and other charges (C)	\$98,796,819	\$88,784,691
Receipts less payments (B - C) = (D)	\$47,930,092	\$30,118,407
Closing balance (A + D)	\$1,241,175,803	\$1,193,245,712

The above account transaction statement is unaudited.

Retirement Compensation Arrangement No. 2

During the 3-year period starting April 1, 1995, a number of employees between the ages of 50 and 54 left the public service under the Early Retirement Incentive Program, which waived the pension reduction under the *Public Service Superannuation Act* for employees who were declared surplus.

Retirement Compensation Arrangement No. 2 account transaction statement (fiscal year ended March 31)

	2018	2017
Opening balance (A)	\$717,522,186	\$807,056,879
Receipts and other credits		
Government interest	28,510,933	34,240,959
Actuarial liability adjustment	0	0
Total receipts and other credits (B)	28,510,933	34,240,959
Payments and other charges		
Annuities	84,757,461	84,823,287
Refundable tax	(27,459,101)	38,952,365
Total payments and other charges (C)	57,298,360	123,775,652
Receipts less payments (B - C) = (D)	\$(28,787,427)	\$(89,534,693)
Closing balance (A + D)	\$688,734,759	\$717,522,186

The above account transaction statement is unaudited.



Supplementary death benefit

As at March 31, 2018, there were 302,231 active participants (296,024 in the previous year) and 184,612 retired elective participants (180,975 in the previous year) entitled to a supplementary death benefit under Part II of the *Public Service Superannuation Act*. In fiscal year ended March 31, 2018, a total of 4,519 claims (3,863 in the previous year) for supplementary death benefits were paid.

Supplementary death benefit account transaction statement (fiscal year ended March 31)

	2018	2017
Opening balance (A)	\$3,626,907,397	\$3,526,551,938
Receipts and other credits		
Contributions		
Employees (government and public service corporation)	102,889,773	100,187,514
Government		
General	11,899,531	11,050,681
Single premium for \$10,000 benefit	3,058,443	2,990,295
Public service corporations	1,514,931	1,469,385
Interest	149,738,670	154,846,365
Total receipts and other credits (B)	\$269,101,348	\$270,544,240
Payments and other charges		
Benefit payments		
General ¹	\$142,436,539	\$132,418,038
\$10,000 benefit ²	38,508,525	37,580,606
Other death benefit payments	357,836	190,137
Total payments and other charges (C)	\$181,302,900	\$170,188,781
Receipts less payments (B - C) = (D)	\$87,798,448	\$100,355,459
Closing balance (A + D)	\$3,714,705,845	\$3,626,907,397

The above account transaction statement is unaudited.

- 1. Benefits paid in respect of participants who, at the time of death, were employed in the public service or in receipt of an immediate annuity.
- 2. Benefits of \$10,000 paid in respect of participants who, at the time of death, were employed in the public service or in receipt of an immediate annuity and on whose behalf a single premium for \$10,000 of death-benefit coverage has been made by the employer.



Statistical tables



Statistical table 1. Pensions in pay

Statistical table 1.1. Number of pensions and survivor pensions in pay (fiscal year ended March 31)

Year	Pensions ¹	Survivor pensions ²	Total
2018	222,169	54,115	276,284
2017	221,673	55,123	276,796
2016	218,028	61,716 ³	279,7443

Statistical table 1.2. Average annual amount of pensions and survivor pensions in pay⁴ (fiscal year ended March 31)

			Pensions ¹		Surviv	Survivor pensions			
Year	Averages	Men	Women	Overall	Spouse or common-law partner	Children	Students		
	Annual amount	\$36,273	\$27,121	\$31,628	\$14,391	\$2,302	\$3,952		
2018	Age	71.8	68.7	70.2	79.8	12.8	21.5		
2010	Pensionable service (years)	25.9	23.1	24.6	22.5	13.0	19.8		
	Annual amount	\$34,015	\$25,351	\$30,034	\$14,245	\$2,165	\$3,376		
2017	Age	71.7	68.6	70.3	81.2	12.6	21.6		
	Pensionable service (years)	25.4	23.1	24.3	22.5	12.4	17.9		
	Annual amount	\$33,254	\$24,517	\$29,314	\$14,145	\$2,127	\$3,686		
2016	Age	71.6	68.7	70.3	82.0	n/a	n/a		
	Pensionable service (years)	25.4	22.9	24.3	22.9	n/a	n/a		

- 1. Includes immediate annuities, disability retirement benefits and annual allowances payable to former contributors only.
- 2. Includes spouse or common-law partner, children and students.
- 3. The data previously published in the *Report on the Public Service Pension for Fiscal Year Ended March 31, 2016*, has been updated to reflect the most current data available for March 31, 2016.
- 4. Amounts include indexation.



Statistical table 2. Pensions that became payable

Statistical table 2.1. Pensions that became payable to members^{1, 2} (fiscal year ended March 31)

Year	Men	Women	Total	Total amount paid	Average pension
2018	6,065	7,025	13,090	\$465,451,113	\$37,391
2017	4,046	5,276	9,322	\$352,228,283	\$37,785
2016	4,323	5,437	9,760	\$356,718,556	\$36,549

Statistical table 2.2. Pensions that became payable to survivors² (fiscal year ended March 31)

Year	Spouse or common-law partner	Children and students	Total	Total amount paid	Spouse or common-law partner	Children and students	
					Average pension		
2018	2,636	98	2,734	\$44,604,440	\$16,796	\$3,378	
2017	2,432	129	2,561	\$42,135,714	\$17,157	\$3,180	
2016	2,091	578	2,669	\$34,784,709	\$16,556	\$3,430	

Notes:

- 1. In 2018, the pensions that became payable included immediate annuities (7,641), deferred annuities (3,725), annual allowances payable to former contributors only (1,278) and disability retirement benefits (446).
- 2. These amounts include indexation.

Statistical table 3. Unreduced pensions, immediate annuities¹ (fiscal year ended March 31)

Year	Number of pensions at age at retirement								Δ	verage						
	50 to 54 ²	55	56	57	58	59	60 ³	61	62	63	64	65	66 and over	Total	Age ⁴	Unreduce d pension ⁵
2018	49	913	499	373	384	319	1,712	636	470	407	390	472	1,018	7,641	61	\$42,623
2017	54	1,124	487	422	372	313	1,145	522	450	388	300	414	830	6,821	60	\$41,832
2016	50	1,293	510	382	327	333	1,159	514	450	381	350	457	841	7,047	60	\$41,072

- 1. Excludes immediate annuities resulting from disability retirement benefits (446 in 2018).
- 2. Includes only eligible Correctional Service Canada operational employees who qualify for an unreduced pension.
- 3. Excludes deferred annuities that became payable at age 60. In 2018, there were 3,725 deferred annuities (2,124 men, 1,601 women) that became payable at age 60.
- 4. In 2018, the average retirement age was 61.31 for men and 60.42 for women.
- 5. In 2018, the average unreduced pension was \$44,817 for men and \$38,925 for women.



Statistical table 4. Reduced pensions (annual allowances) and lump-sum payments that became payable (fiscal year ended March 31)

Year		Lump-sum payments ²				
	Men	Women	Total	Average allowance	Number	Amount
2018	444	834	1,278	\$35,010	6,549	\$340,990,108
2017	541	927	1,468	\$32,912	10,330	\$392,483,005
2016	575	997	1,572	\$30,330	12,230	\$468,442,200

Notes:

- 1. Includes deferred annual allowances. A deferred annual allowance is a deferred annuity that is reduced because of early payment.
- 2. Includes transfer values, returns of contributions, amounts transferred to other pension plans under pension transfer agreements and amounts transferred under the *Pension Benefits Division Act*.

Statistical table 5. Changes in number of active members, retired members and survivors on pension

Statistical table 5.1. Changes in number of active members (fiscal year ended March 31, 2018)

	Men	Women	Total
Number of active members, March 31, 2017	131,470	166,287	297,757
Additions	10,566	14,037	24,603
Deletions ¹	8,231	10,796	19,027
Adjustments ²	26	124	150
Number of active members, March 31, 2018	133,831	169,652	303,483

- 1. Includes full return of contributions, immediate annuities, annual allowances paid, transfer values, deferred annuities chosen, deferred annuities locked in (if applicable), transfers out and deaths in service.
- 2. Adjustments for previous year correction.



Statistical table 5.2. Changes in number of retired members (fiscal year ended March 31, 2018)

	Men	Women	Total
Number of retired members, March 31, 2017	120,211	101,462	221,673
Additions	6,065	7,025	13,090
Deletions	1,236	523	1,759
Adjustments ¹	(6,830)	(4,005)	(10,835)
Number of retired members, March 31, 2018	118,210	103,959	222,169

Note:

Statistical table 5.3. Changes in number of survivors on pension (fiscal year ended March 31, 2018)

	Men	Women	Total
Number of survivors on pension, March 31, 2017	6,550	47,426	53,976
Additions	546	2,090	2,636
Deletions	417	3,113	3,530
Adjustments ¹	(2)	0	(2)
Number of survivors on pension, March 31, 2018	6,677	46,403	53,080

Note:

Statistical table 5.4. Changes in number of children and students on pension (fiscal year ended March 31, 2018)

	Men	Women	Total
Number of children and students on pension, March 31, 2017	535	612	1,147
Additions	48	50	98
Deletions	127	155	282
Adjustments ¹	32	40	72
Number of children and students on pension, March 31, 2018	488	547	1,035



^{1.} Adjustments for transactions completed after year-end with an effective date before March 31.

^{1.} Adjustments for previous year correction.

^{1.} Adjustments for previous year correction.

Statistical table 6. Number of transfer-value payments by years of pensionable service and age at termination (fiscal year ended March 31, 2018)

	Age at termination						
Years of pensionable service	Under 30	30 to 34	35 to 39	40 to 44	45 to 49	50 to 55	Total
Under 5	165	105	68	46	58	31	473
5 to 9	71	142	140	83	70	17	523
10 to 14	0	24	99	82	64	22	291
15 to 19	0	1	26	83	77	25	212
20 to 24	0	0	0	8	32	22	62
25 to 29	0	0	0	1	24	25	50
30 to 35	0	0	0	0	3	4	7
Overall total	236	272	333	303	328	146	1,618
Total women	125	142	197	170	189	89	912
Total men	111	130	136	133	139	57	706

Statistical table 7. Supplementary death benefit: Number of participants and number of benefits paid (fiscal year ended March 31)

	Acti	ve particip	ants¹	Reti	red partici	oants²		Death l	benefits	paid
Year	Men	Women	Total	Men	Women	Total	Men	Women	Total	Amount paid
2018	132,291	169,940	302,231	97,698	86,914	184,612	3,038	1,481	4,519	\$181,302,900
2017	129,784	166,240	296,024	97,480	83,495	180,975	2,685	1,178	3,863	\$170,188,781
2016	125,472	160,484	285,956	97,479	80,320	177,799	2,063	791	2,854	\$173,928,280

- 1. Certain Crown corporations and public boards are excluded from participating in the supplementary death benefit plan.
- 2. Participation in the supplementary death benefit is optional for retirees.



Financial statements of the public service pension plan for the fiscal year ended March 31, 2018



Statement of responsibility

Responsibility for the integrity and fairness of the financial statements of the public service pension plan (the pension plan) rests with Public Services and Procurement Canada (PSPC) and the Treasury Board of Canada Secretariat (the Secretariat). The Secretariat carries out responsibilities in respect of the overall management of the pension plan, while PSPC is responsible for the day-to-day administration of the pension plan and for maintaining the books of accounts.

PSPC and the Secretariat have prepared the financial statements of the pension plan for the year ended March 31, 2018, in accordance with the stated accounting policies set out in Note 2 of the financial statements, which are based on Canadian accounting standards for pension plans. The presentation and results using the stated accounting policies do not result in any significant differences from Canadian accounting standards for pension plans. The financial statements include management's best estimates and judgments where appropriate.

To fulfill its accounting and reporting responsibilities, PSPC has developed and maintains books, records, internal controls, and management practices designed to provide reasonable assurance as to the reliability of the financial information and to ensure that transactions are in accordance with the *Public Service Superannuation Act* (PSSA) and regulations, as well as the *Financial Administration Act* (FAA) and regulations.

Additional information, as required, is obtained from the Public Sector Pension Investment Board (PSPIB). PSPIB maintains its own records and systems of internal control to account for the funds managed on behalf of the pension plan in accordance with the *Public Sector Pension Investment Board Act*, regulations and by-laws.

These statements have been audited by the Auditor General of Canada, the independent auditor for the Government of Canada.

Approved by:

Bill Matthews Peter Wallace

Deputy Minister Secretary of the Treasury Board

Public Services and Procurement Canada Treasury Board of Canada Secretariat

Original signed Original signed February 8, 2019 February 8, 2019





Office of the Bureau du Auditor General vérificateur général of Canada du Canada

INDEPENDENT AUDITOR'S REPORT

To the President of the Treasury Board and the Minister of Public Services and Procurement and Accessibility

Report on the Financial Statements

I have audited the accompanying financial statements of the public service pension plan, which comprise the statement of financial position as at 31 March 2018, and the statement of changes in net assets available for benefits and statement of 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 the stated accounting policies set out in Note 2 of the financial statements, which are based on 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

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I 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.



I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

In my opinion, the financial statements present fairly, in all material respects, the financial position of the public service pension plan as at 31 March 2018, 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.

Report on Other Legal and Regulatory Requirements

In my opinion, the transactions of the public service pension plan that have come to my notice during my audit of the financial statements have, in all significant respects, been in accordance with the *Public Service Superannuation Act* and regulations, the *Public Sector Pension Investment Board Act* and regulations and the by-laws of the Public Sector Pension Investment Board.

Mélanie Cabana, CPA, CA

Principal

for the Auditor General of Canada

8 February 2019 Ottawa, Canada



Financial statements

Statement of financial position (Canadian \$ millions)

	As at March 31, 2018	As at March 31, 2017 Restated (Note 3)	As at April 1, 2016 Restated (Note 3)
Assets			
Public Service Pension Fund (Note 5)	\$315	\$323	\$355
Investments (Note 6)	129,877	115,296	95,400
Contributions receivable			
From plan members (Note 9)	483	583	555
From employers (Note 9)	412	508	510
Other assets (Note 10)	165	148	131
Total assets	\$131,252	\$116,858	\$96,951
Liabilities			
Investment-related liabilities (Note 6)	\$9,928	\$8,983	\$4,251
Accounts payable and other liabilities	199	168	128
Borrowings (Note 6 and Note 11)	8,849	7,846	6,421
Net assets available for benefits	\$112,276	\$99,861	\$86,151
Pension obligations			
Unfunded (Note 14 and Note 22)	\$114,603	\$117,330	\$126,388
Funded (Note 14)	93,030	87,407	79,469
Total pension obligations	\$207,633	\$204,737	\$205,857
Deficit to be financed by the Government of Canada (Note 15)	\$(95,357)	\$(104,876)	\$(119,706)

Commitments (Note 25)

The accompanying notes are an integral part of these financial statements.



Financial statements (continued)

Statement of changes in net assets available for benefits Year ended March 31 (Canadian \$ millions)

	2018	2017
Net assets available for benefits, beginning of year	\$99,861	\$86,151
Increase in net assets available for benefits		
Investment income, excluding changes in fair values of investment assets and investment liabilities (Note 16)	2,994	2,498
Changes in fair values of investment assets and investment liabilities, realized and unrealized gains and losses (Note 16)	7,567	9,086
Contributions		
From plan members (Note 17)	2,314	2,183
From employers (Note 17)	2,275	2,330
Actuarial adjustment (Note 18)	340	340
Transfers from other pension plans	51	28
Total increase in net assets available for benefits	\$15,541	\$16,465
Decrease in net assets available for benefits		
Benefits paid with respect to service after March 31, 2000 (Note 19)	\$2,017	\$1,792
Refunds and transfers (Note 19)	307	341
Investment-related expenses (Note 20)	419	301
Administrative expenses (Note 21)	383	321
Total decrease in net assets available for benefits	\$3,126	\$2,755
Net increase in net assets available for benefits	\$12,415	\$13,710
Net assets available for benefits, end of year	\$112,276	\$99,861

The accompanying notes are an integral part of these financial statements.



Financial statements (continued)

Statement of changes in pension obligations Year ended March 31 (Canadian \$ millions)

	2018 Funded	2018 Unfunded	2018 Total	2017 Funded	2017 Unfunded Restated (Note 3)	2017 Total Restated (Note 3)
Pension obligations, beginning of year	\$87,407	\$117,330	\$204,737	\$79,469	\$126,388	\$205,857
Increase in pension obligation	ns					
Interest on pension obligations	4,256	2,509	6,765	3,713	2,337	6,050
Benefits earned	4,823	0	4,823	4,648	0	4,648
Experience losses (gains) ¹ (Note 14)	(12)	1,022	1,010	(942)	(341)	(1,283)
Transfers from other pension plans	51	0	51	28	0	28
Total increase in pension obligations	\$9,118	\$3,531	\$12,649	\$7,447	\$1,996	\$9,443
Decrease in pension obligati	ons					
Benefits paid (Note 19)	\$2,017	\$5,429	\$7,446	\$1,792	\$5,399	\$7,191
Change in actuarial assumptions: gains (losses) ¹ (Note 14)	1,125	740	1,865	(2,666)	5,549	2,883
Refunds and transfers (Note 19)	307	34	341	341	51	392
Administrative expenses included in the service cost (Note 21 and Note 22)	46	55	101	42	55	97
Total decrease in pension obligations	\$3,495	\$6,258	\$9,753	\$(491)	\$11,054	\$10,563
Net increase (decrease) in pension obligations	\$5,623	\$(2,727)	\$2,896	\$7,938	\$(9,058)	\$(1,120)
Pension obligations, end of year The accompanying notes are an integral	\$93,030	\$114,603	\$207,633	\$87,407	\$117,330	\$204,737

The accompanying notes are an integral part of these financial statements.



^{1.} The financial statement line item has been presented in either the increase in pension obligations section, or the decrease in pension obligations section, in order to reflect the current-year impact on the change in pension obligations.

1. Description of the public service pension plan

The public service pension plan (the pension plan), governed by the *Public Service Superannuation Act* (PSSA), provides pension benefits for federal public service employees. While the PSSA has been in effect since January 1, 1954, federal legislation has been providing pensions for public servants since 1870.

The main provisions of the pension plan are summarized below.

(A) General

The pension plan is a contributory defined benefit plan covering substantially all of the full-time and part-time employees of the Government of Canada (the government), public service corporations as defined in the PSSA, and territorial governments. Membership in the pension plan is compulsory for all eligible employees.

The government is the sole sponsor of the pension plan. The President of the Treasury Board is the Minister responsible for the PSSA. The Treasury Board of Canada Secretariat (the Secretariat) is responsible for the management of the pension plan while Public Services and Procurement Canada (PSPC) provides the day-to-day administration of the pension plan and maintains the books of accounts. The Office of the Chief Actuary (OCA), an independent unit within the Office of the Superintendent of Financial Institutions (OSFI), performs periodic actuarial valuations of the pension plan.

Until April 1, 2000, separate invested funds were not set aside to provide for payment of pension benefits. Instead, transactions relating to the pension plan were recorded in the Public Service Superannuation Account (superannuation account) created by legislation in the accounts of Canada. Pursuant to the PSSA, as amended by the *Public Sector Pension Investment Board Act*, transactions relating to service since April 1, 2000, are now recorded in the Public Service Pension Fund (pension fund). An amount equal to contributions in excess of benefit payments and administrative costs is transferred regularly to the Public Sector Pension Investment Board (PSPIB) for investment. PSPIB is a Crown corporation whose statutory objectives are to manage the funds transferred to it for investment and to maximize investment returns without undue risk of loss, having regard to the funding, policies and requirements of the three main public sector pension plans (public service, Royal Canadian Mounted Police (RCMP) and Canadian Forces).



(B) Funding policy

The pension plan is funded from plan member and employer contributions, and from investment earnings. For the fiscal year, public service employees who were members of the pension plan on or before December 31, 2012 (Group 1) contributed 9.47% (9.05% in 2017) for the first 9 months and 9.83% (9.47% in 2017) for the last 3 months of pensionable earnings up to the maximum covered by the Canada Pension Plan (CPP) or Québec Pension Plan (QPP); and 11.68% (11.04% in 2017) for the first 9 months and 12.13% (11.68% in 2017) for the last 3 months of pensionable earnings above that maximum.

The contribution rates for public service employees joining the pension plan on or after January 1, 2013 (Group 2) was set at 8.39% (7.86% in 2017) for the first 9 months and 8.77% (8.39% in 2017) for the last 3 months of pensionable earnings up to the maximum covered by the CPP and QPP; and 9.94% (9.39% in 2017) for the first 9 months and 10.46% (9.94% in 2017) for the last 3 months of pensionable earnings above that maximum. The government's contribution is made monthly to provide for the cost (net of plan member contributions) of the benefits that have accrued in respect of that month at a rate determined by the President of the Treasury Board. The contribution rates are determined based on actuarial valuations, which are normally performed triennially.

The PSSA provides that all pension obligations arising from the pension plan be met by the government. The PSSA requires that any actuarial deficit in the pension fund be dealt with by transferring equal instalments to the pension fund over a period of up to 15 years, commencing in the year in which the actuarial report is tabled in Parliament. The PSSA also allows any surplus to be lowered by reducing government and pension plan member contributions. In addition, if there is an amount considered to be a non-permitted surplus (refer to PSSA section 44.4(5) for the definition of non-permitted surplus) related to the pension fund, no further government pension contributions are permitted while pension plan member contributions under the pension fund may be reduced and amounts managed by PSPIB may be transferred to the government's Consolidated Revenue Fund (CRF).



(C) Benefits

The pension plan provides pension benefits based on the number of years of pensionable service up to a maximum of 35 years. Benefits are determined by a formula set out in the legislation; they are not based on the financial status of the pension plan. The basic benefit formula is 2% per year of pensionable service multiplied by the average of the 5 consecutive years of highest paid service. To reflect the *Income Tax Act* restrictions on registered pension plan benefits, separate retirement compensation arrangements (RCAs) have been implemented to provide benefits that exceed the limits established in the *Income Tax Act*. Since the RCAs are covered by separate legislation, their account balances in the accounts of Canada are not consolidated in these financial statements; however, condensed information is presented in Note 23.

Pension benefits are coordinated with the CPP and QPP, and the resulting pension reduction factor for pension plan members reaching age 65, or earlier if totally and permanently disabled, has been lowered from a level of 0.7% for those turning age 65 in calendar year 2007 or earlier and to 0.625% for those turning age 65 in calendar year 2012 and later. Also, benefits are fully indexed to the increase in the Consumer Price Index.

Other benefits include survivor pensions, minimum benefits in the event of death, unreduced early retirement pensions, and disability pensions.

2. Significant accounting policies

The significant accounting policies that have been applied in the preparation of these financial statements are summarized below.

(A) Basis of presentation

These financial statements present information on the pension plan on a going-concern basis. They are prepared to assist plan members and others in reviewing the activities of the pension plan for the year, not to portray the funding requirements of the pension plan.

These financial statements are prepared in Canadian dollars, the plan's functional currency, in accordance with the accounting policies stated below, which are based on Canadian accounting standards for pension plans in Part IV of the Chartered Professional Accountants (CPA) Canada Handbook (Section 4600). Section 4600 provides specific accounting guidance on investments and pension obligations. For accounting policies that do not relate to either investments or pension obligations, the plan complies with International Financial Reporting Standards (IFRS) in Part I of the CPA Canada Handbook. To the extent that IFRS in Part I are inconsistent with Section 4600, Section 4600 takes precedence. The presentation and results using the stated accounting policies do not result in any significant differences from Canadian accounting standards for pension plans.



PSPIB is a Crown corporation whose statutory objectives are to manage the funds transferred to it for investment. PSPIB qualifies as an investment entity as defined under IFRS 10 Consolidated Financial Statements and forms part of the pension plan reporting entity. Pursuant to Section 4600, PSPIB's subsidiaries that are formed to hold investments or those that provide PSPIB with services that relate to its investment activities are consolidated since these entities are not considered investment assets. PSPIB's investment in subsidiaries, associates, and joint ventures that are considered investment assets are measured at fair value in accordance with Section 4600. Financial liabilities are also measured at fair value in accordance with Section 4600.

The financial statements for the year ended March 31, 2018, were authorized for issue by the signatories on February 8, 2019.

(B) Interests in other entities

Management, through the activities of PSPIB, assesses control, joint control and significant influence with respect to the investees disclosed in Note 7 as follows:

(I) Control and significant influence

It is determined that PSPIB has control over an investee when it is exposed, or has rights, to variable returns from its investment in an entity and has the ability to affect those returns through its power over the investee.

In certain cases, PSPIB does not have control over an investee but has the power to participate in the financial and operating policy decisions of the investee. In such cases, PSPIB determines that it has significant influence over the investee.

In the context of control or significant influence, power over an investee is obtained through voting rights conveyed by PSPIB's ownership interest, other contractual arrangements, or a combination thereof.

(II) Joint control

It is determined that PSPIB is party to a joint venture arrangement when it has joint control over an investee and has rights to the net assets of the investee. Joint control is established through a contractual arrangement which requires the unanimous consent of the parties sharing control for the activities that significantly affect the returns of the arrangement.

Generally, decision making regarding such activities is governed through voting rights conveyed by the ownership interest of each party. In certain cases, it is governed solely through contractual arrangements or in conjunction with the ownership interest of each party.



(C) Financial instruments

(I) Classification

Financial assets representing investments are managed, together with related financial liabilities, according to the entity's business model to maximize the rate of return. The performance of such financial instruments is evaluated on a fair value basis and they are classified at fair value through profit or loss (FVTPL). They are described in detail in Note 6(A).

Borrowings, as described under Note 11, are financial liabilities that are designated to be measured at FVTPL since they are part of the portfolios of investments that are managed together and whose performance is evaluated on a fair value basis.

(II) Recognition

Financial assets and financial liabilities are recorded at the date upon which PSPIB becomes a party to the associated contractual provisions. In the case of traded financial assets, they are recorded as of the trade date

(III) Initial and subsequent measurement

All financial assets and financial liabilities are recorded in the statement of financial position at fair value and continue to be measured as such on a recurring basis. After initial measurement, subsequent changes in the fair value of financial assets and financial liabilities classified at FVTPL are recorded in the statement of changes in net assets available for benefits.

(IV) Derecognition

A financial asset (or, where applicable, a part thereof) is derecognized when the following conditions are met:

- ▶ The rights to receive cash flows from the asset have expired, or
- ▶ PSPIB has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows to a third party, and
- ▶ PSPIB has transferred substantially all the risks and rewards of the asset, or
- ▶ In cases where PSPIB has neither transferred nor retained substantially all the risks and rewards of the asset, it has transferred control of the asset.

A financial liability is derecognized when the obligation under the liability is discharged, cancelled or expired.



(D) Determination of fair value

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.

At initial recognition, PSPIB evaluates the facts and circumstances related to a transaction to confirm that the transaction price represents the fair value of an asset or a liability. At each subsequent reporting date, market prices are used to determine fair value where an active market exists (such as a recognized securities exchange), as they reflect actual and regularly occurring market transactions on an arm's length basis. If quoted market prices are not available, then fair value is estimated using valuation techniques based on inputs existing at the end of the reporting period that are derived from observable market data.

Valuation techniques are generally applied to investments in private markets, alternative investments, over-the-counter (OTC) derivatives and certain fixed income securities. The values derived from applying these techniques are impacted by the choice of valuation model and the underlying assumptions made concerning factors such as the amounts and timing of future cash flows, discount rates, volatility and credit risk. In certain cases, such assumptions are not supported by market observable data.

The determination of fair value of all financial assets and financial liabilities is described in Note 6.

(E) Foreign currency translation

Foreign currency transactions during the period, including purchases and sales of securities, income and expenses, are translated at the rate of exchange prevailing on the date of the transaction.

Monetary assets and liabilities that are denominated in foreign currencies are translated at the functional currency rate of exchange prevailing at the end of the reporting period.

Foreign currency transaction gains and losses on all monetary assets and liabilities are included in investment income.

(F) Securities lending and securities borrowing and related collateral

PSPIB participates in securities lending and borrowing programs whereby it lends and borrows securities in order to enhance portfolio returns. Lending and borrowing transactions including related collateral under such programs do not transfer the risks or rewards of ownership of the securities to the counterparty. Consequently, PSPIB does not derecognize securities lent or pledged as collateral, or recognize securities borrowed or received as collateral. Cash collateral received is recognized as described in Note 6(A)(IX).



The securities lending and borrowing programs require collateral in cash, high-quality debt instruments or securities. Collateral transactions are conducted under terms that are usual and customary in standard securities lending and borrowing programs. PSPIB and its counterparties are authorized to sell, repledge or otherwise use collateral held. The same securities or equivalent securities must be returned to the counterparty at the end of the contract, unless an event of default occurs.

(G) Securities sold under repurchase agreements and purchased under reverse repurchase agreements and related collateral

PSPIB is party to repurchase and reverse repurchase agreements. Such agreements involve the sale of securities by one counterparty with a simultaneous agreement to repurchase such securities at a specified price and at a specified future date.

Securities sold or purchased under the repurchase and reverse repurchase agreements respectively, including related collateral, are not derecognized or recognized as all risks and rewards of ownership related to such securities are not transferred. As such, in the case where PSPIB is the counterparty selling securities under such agreements, all income (loss) related to such securities continues to be reported in investment income and obligations to repurchase the securities sold are accounted for as investment-related liabilities.

The difference between the fair value of the securities sold and the repurchase price is recorded as interest expense within investment-related expenses. In the case where PSPIB is the counterparty purchasing securities under such agreements, no income (loss) related to such securities is recognized and obligations to resell the securities are accounted for as investment-related receivables. The difference between the fair value of the securities purchased and resale price is recorded in investment income.

Transactions under repurchase and reverse repurchase agreements involve pledging collateral consisting of cash or securities deemed acceptable by the counterparties. Collateral transactions are conducted under terms that are usual and customary in standard repurchase arrangements. Such terms require the relevant counterparty to pledge additional collateral based on the changes in the fair value of the existing collateral pledged as well as the related securities sold or purchased. The counterparties are authorized to sell, repledge or otherwise use collateral held. The securities pledged as collateral must be returned to the relevant counterparty at the end of the contract, unless an event of default occurs.



(H) Offsetting of financial instruments

Financial assets and financial liabilities are offset with the net amount reported in the statement of financial position only if PSPIB has a current legally enforceable right to offset the recognized amounts and the intent to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

(I) Pension obligations

The present value of accrued pension benefits is calculated using the projected benefit method prorated on service, based on management's best estimate of streamed expected rates of return on invested funds for funded pension benefits, and the government's cost of borrowing derived from the yields on the actual zero-coupon yield curve for Government of Canada bonds, which reflect the timing of the expected future cash flows for unfunded pension benefits.

(J) Investment income

Investment income is made up of interest, dividends, gains (losses) on the disposal of financial assets and financial liabilities as well as gains (losses) which reflect the change in unrealized appreciation (depreciation) of financial assets held and financial liabilities outstanding at the end of the reporting period. Interest is recognized, on a consistent basis, using the prescribed rates until maturity. Dividends are recognized when the right to receive them has been obtained, generally on the ex-dividend date.

(K) Contributions

Contributions for current service are recorded in the year in which the related payroll costs are incurred. Contributions for past service that are receivable over a period in excess of 1 year are recorded at the estimated net present value of the contributions to be received.

(L) Benefits earned, benefits paid, and refunds and transfers

Benefits earned are accrued as employees render pensionable services.

The funded and unfunded benefits paid are recognized as a reduction of pension obligations when the payments are made. The funded benefits paid are recognized as a reduction of net assets available for benefits when the payments are made.

Benefit payments, refunds to former members and transfer payments to other plans are recorded in the period in which they are paid.

(M) Investment-related expenses

Investment-related expenses are made up of interest expense, as described in Note 6(A)(VII), transaction costs, external investment management fees and other (net).



Transaction costs are incremental costs directly attributable to the acquisition, due diligence, issue, or disposal of a financial asset or financial liability, and they are expensed as incurred.

External investment management fees are directly attributable to the external management of assets on behalf of PSPIB. These fees are paid directly by PSPIB and comprise base fees accrued as a percentage of the fair value of the assets managed externally and performance fees accrued as a function of various performance indicators. This excludes amounts not paid directly by PSPIB for certain pooled fund investments classified under alternative investments and for investments in private markets as outlined in Note 20.

(N) Significant accounting judgments, estimates and assumptions

In preparing the financial statements, management makes certain judgments, estimates and assumptions that can affect the amounts reported therein. Significant judgments include those related to the determination of the investment entity status of PSPIB as described in Note 2(A).

Management also makes estimates and assumptions in the measurement, risk assessment and related disclosures surrounding investments in private markets, certain fixed income securities and the pension obligations.

The main assumptions made by management regarding measurement of financial instruments are outlined in Note 6(C)(III), those regarding the assessment of risk are outlined in Note 8.

The pension obligations are actuarially determined and the actual experience may differ significantly from the assumptions used in the calculation of the pension obligations. The significant actuarial assumptions used in measuring the pension obligations are found in Note 14.

Although estimates and assumptions reflect management's best judgment, actual results may differ from such estimates due to the uncertainties involved in using them.

3. Change in accounting policy

The government has reviewed its methodologies for selecting discount rates used in the measurement of its pension obligations in order to promote consistency when using a present value technique. This review considered industry practices and emerging changes in accounting standards. The revised discount rate methodology establishes the government's cost of borrowing by reference to the actual zero-coupon yield curve for Government of Canada bonds, and affects the unfunded pension obligations.

In the past, unfunded pension benefits were discounted using a streamed weighted average of Government of Canada long-term bond rates, which was calculated based on a 20-year weighted moving average of Government of Canada long-term bond rates projected over time. Unfunded pension benefits are now discounted using actual yields that reflect the timing of the expected future cash flows.



This change represents a fundamental adjustment to the methodology used to select the discount rate and is considered a change in accounting policy which was applied on a retrospective basis.

The unfunded pension obligations for the superannuation account are disclosed in Note 22 and amount to \$114,603 million (\$117,330 million as at March 31, 2017, and \$126,388 million as at April 1, 2016) compared to \$95,877 million (\$96,868 million as at March 31, 2017, and \$97,027 million as at April 1, 2016) under the old discount rate methodology.

Retirement compensation arrangements (RCAs) are not consolidated in the financial statements of the pension plan and are disclosed in Note 23. The pension obligation related to the RCA accounts is \$3,597 million (\$3,587 million as at March 31, 2017) compared to \$3,797 million (\$3,766 million as at March 31, 2017) under the old discount rate methodology.

The pension promise to the plan members and beneficiaries is not affected by this change in the methodology used to calculate the unfunded pension obligations. The PSSA requires that all pension obligations arising from the plan be met.

A reconciliation of the restatement pertaining to unfunded pension obligations for each financial statement line item affected is disclosed below. See Note 14 for additional information on pension obligations.



Statement of financial position

As at March 31, 2017 (\$ millions)

7.6 at march 61, 2017 (\$\pi\text{minion6})			
	As previously reported	Effect of change in accounting policy	As restated
Net assets available for benefits	\$99,861	\$0	\$99,861
Pension obligations			
Unfunded	\$96,868	\$20,462	\$117,330
Funded	87,407	0	87,407
Total pension obligations	\$184,275	\$20,462	\$204,737
Deficit to be financed by the Government of Canada	\$(84,414)	\$(20,462)	\$(104,876)

As at April 1, 2016 (\$ millions)

(As previously reported	Effect of change in accounting policy	As restated
Net assets available for benefits	\$86,151	\$0	\$86,151
Pension obligations			_
Unfunded	\$97,027	\$29,361	\$126,388
Funded	79,469	0	79,469
Total pension obligations	\$176,496	\$29,361	\$205,857
Deficit to be financed by the Government of Canada	\$(90,345)	\$(29,361)	\$(119,706)



Statement of changes in pension obligations For the year ended March 31, 2017 (\$ millions)

	As previously reported	Effect of change in accounting policy	As restated
Unfunded pension obligations, beginning of year	\$97,027	\$29,361	\$126,388
Increase (decrease) in unfunded pension of	oligations		
Interest on unfunded pension obligations	\$4,148	\$(1,811)	\$2,337
Changes in actuarial assumptions: losses (gains)	1,539	(7,088)	(5,549)
Benefits paid	(5,399)	0	(5,399)
Experience gains	(341)	0	(341)
Refunds and transfers	(51)	0	(51)
Administrative expenses included in the service cost	(55)	0	(55)
Net decrease in unfunded pension obligations	\$(159)	\$(8,899)	\$(9,058)
Unfunded pension obligations, end of year	\$96,868	\$20,462	\$117,330
Funded pension obligations, end of year	\$87,407	\$0	\$87,407
Total pension obligations, end of year	\$184,275	\$20,462	\$204,737



4. Current and future changes in accounting standards

(A) Accounting standards adopted before the effective date

IFRS 9: Financial Instruments

In 2014, the International Accounting Standards Board (IASB) completed its project to replace IAS 39 Financial Instruments: Recognition and Measurement with IFRS 9: Financial Instruments. The Standard includes requirements for recognition, derecognition, classification and measurement of financial assets and liabilities, as well as impairment and hedge accounting. IFRS 9: Financial Instruments is effective for annual periods beginning on or after January 1, 2018, with early application permitted.

IFRS 9: Financial Instruments (2014) was initially adopted for the year ended March 31, 2016. Significant accounting policies as they relate to recognition, derecognition, classification and measurement of financial assets and liabilities in connection with IFRS 9: Financial Instruments are described in Note 2(C). There is no impact from the requirements relating to impairment and hedge accounting.

(B) Future accounting standards

A number of new standards, amendments and interpretations have been issued by the IASB, but are not yet effective. The following relates to one or more of the significant accounting policies or disclosures:

IAS 28: Investments in Associates and Joint Ventures

IAS 28: Investments in Associates and Joint Ventures was amended, effective for annual periods beginning on or after January 1, 2018, to add a clarification that serves to elaborate and clarify that the election to measure investees at fair value is available on an investment by investment basis and is not an election that must be applied consistently to the measurement of all associates and joint ventures. Management has determined that the amendment will not have an impact on the financial statements.

5. Public Service Pension Fund

The government has a statutory obligation to pay benefits relating to the pension plan. This pension obligation is to plan members and their beneficiaries.

In 1999, the pension legislation was amended to allow the government to invest funds in order to provide for the pension obligations. This legislation created the PSPIB to manage and invest amounts that are transferred regularly to it from the CRF related to service since April 1, 2000. The transactions are recorded in the Public Service Pension Fund. The Public Service Pension Fund is merely a flow through account. At year-end, the balance in the Public Service Pension Fund represents net contributions transferable to PSPIB. PSPIB investment assets and investment-related liabilities are reflected directly in the pension plan's financial statements.



In order for the government to track the transactions related to contributions, benefit payments, interest and transfers, the government established the superannuation account in the accounts of Canada for service prior to April 1, 2000. The superannuation account has no capacity to pay pensions and is not considered an asset of the pension plan. All cash receipts and disbursements go to or come from the CRF. The details of the transactions of the superannuation account are provided in Note 22.



6. Financial assets and financial liabilities

(A) Classes of financial assets and financial liabilities

Financial assets and financial liabilities are aggregated in the following table, in classes that reflect their respective exposure as well as investment sectors. Their fair values were as follows as at March 31 (\$ millions):

	2018	2017
Investments		
Public markets		
Canadian equity	\$3,093	\$4,616
Foreign equity	25,148	21,420
Private markets		
Real estate	19,372	17,670
Private equity	11,804	9,886
Infrastructure	12,949	9,586
Natural resources	3,875	3,100
Fixed income		
Cash and money market securities	8,256	8,980
Government and corporate bonds ¹	16,394	18,190
Inflation-linked bonds	8,967	5,608
Private debt securities	10,252	6,645
Other fixed income securities ¹	17	41
Alternative investments	6,349	5,819
Total investments	\$126,476	\$111,561
Investment-related assets		
Amounts receivable from pending trades	\$809	\$832
Interest receivable	305	231
Dividends receivable	97	96
Securities purchased under reverse repurchase agreements	1,355	1,926
Derivative-related assets	835	650
Total investment-related assets	\$3,401	\$3,735
Investments representing financial assets at FVTPL	\$129,877	\$115,296



	2018	2017
Investment-related liabilities		
Amounts payable from pending trades	\$(845)	\$(781)
Interest payable	(41)	(28)
Securities sold short ²	(4,774)	(3,065)
Collateral payable ²	(2,593)	(3,696)
Securities sold under repurchase agreements	(417)	(804)
Derivative-related liabilities	(1,258)	(609)
Investment-related liabilities representing financial liabilities at FVTPL	\$(9,928)	\$(8,983)
Borrowings		
Capital market debt financing	\$(8,849)	\$(7,846)
Borrowings representing financial liabilities designated at		•
FVTPL	\$(8,849)	\$(7,846)
Net investments	\$111,100	\$98,467

During the year ended March 31, 2018, floating rate notes were reclassified out of other fixed income securities and into
government and corporate bonds in order to better reflect their nature and common characteristics. Accordingly, comparative
figures were adjusted to decrease other fixed income securities by \$2,367 million and increase government and corporate
bonds by the same amount.

(I) Public markets

Public markets consist of Canadian and foreign investments in the following securities: common shares, American depository receipts, global depository receipts, participation notes, preferred shares, income trust units, exchange traded funds units, pooled funds units, and securities convertible into common shares of publicly listed issuers.

Valuation techniques

Direct investments in Canadian and foreign equities are measured at fair value using quoted prices in active markets and are based on the most representative price within the bid-ask spread.

In the case of investments in pooled funds, fair value is measured using unit values obtained from each of the funds' administrators, which are derived from the fair value of the underlying investments in each pooled fund. PSPIB reviews the fair value received, and where necessary, the impact of restrictions on the sale or redemption of such investments is taken into consideration.



During the year ended March 31, 2018, collateral payable was reclassified out of securities sold short and presented separately
under the new caption collateral payable in order to better reflect their nature and common characteristics. Accordingly,
comparative figures were adjusted for consistency.

(II) Private markets

Private markets consist of investments in real estate, private equity, infrastructure and natural resources.

Real estate investments are comprised of direct equity positions in various private entities, fund investments, as well as properties in the real estate sector. Real estate investments focus on partnerships, companies and properties operating mainly in the retirement and residential, office, retail and industrial sectors, as well as private funds invested in real estate assets. Real estate investments are presented net of all third-party financing.

Private equity investments are comprised of fund investments with similar objectives, co-investments in private entities as well as direct equity positions.

Infrastructure investments are comprised of direct equity positions, fund investments and co-investments in various private entities. Infrastructure investments focus on entities engaged in the management, ownership or operation of assets in energy, transportation and other regulated businesses. Infrastructure investments are presented net of all third-party financing.

Natural resources investments are comprised of direct equity positions, fund investments and co-investments in various private entities. Natural resources investments focus on entities engaged in the management, ownership or operation of assets in timberlands, agriculture and upstream oil and gas. Natural resources investments are presented net of all third-party financing.

Valuation techniques

The process for fair value measurement of private markets investments is described in Note 6(C)(II) and the valuation techniques together with the significant inputs used are described in Note 6(C)(III).

(III) Fixed income

Fixed income consists of cash and money market securities, government and corporate bonds, inflation-linked bonds, private debt securities and other fixed income securities.

Cash and money market securities include instruments having a maximum term to maturity of 1 year, such as treasury bills, certificates of deposit and bankers' acceptances. A portion of such instruments has maturities of 90 days or less and is held to meet short term financial commitments. Such instruments are readily convertible into known amounts of cash and have an insignificant risk of change in value.



Government and corporate bonds include Canadian and foreign, federal, provincial, territorial and municipal bonds and floating rate notes. Inflation-linked bonds are fixed income securities that earn inflation-adjusted returns.

Private debt securities are fixed income securities of private companies held directly or through private funds. Such debt securities take the form of senior debt, mezzanine and distressed debt and primary and secondary investments in leveraged loans. Private debt securities also include third-party loans such as junior and senior debts, construction loans, bridge loans, income-participating loans, as well as other structured finance products in the real estate sector.

Other fixed income securities consist of asset-backed term notes (ABTNs) and mortgage-backed securities. The ABTNs were received in exchange for third-party or non-bank sponsored asset-backed commercial paper (ABCP) that suffered a liquidity disruption in mid-August 2007 and were subsequently restructured in January 2009.

Valuation techniques

Treasury bills are valued based on prices obtained from third-party pricing sources. Such prices are determined using the most representative price within a spread of dealer quotations. Certificates of deposit and bankers' acceptances are recorded at cost plus accrued interest, which approximates their fair value given their short-term nature.

Fair values of government and most corporate bonds, inflation-linked bonds and mortgage-backed securities are based on prices obtained from third-party pricing sources. Such prices are determined using either an appropriate interest rate curve with a spread associated with the credit quality of the issuer or other generally accepted pricing methodologies.

The fair values of certain corporate bonds, private debt securities and ABTNs are determined using valuation techniques. Such techniques, together with the significant inputs used, are described in Note 6(C)(III).

The fair value measurement of fund investments included as part of private debt securities is described in Note 6(C)(II).

(IV) Alternative investments

Alternative investments consist mainly of units of funds that hold a mix of equity, fixed income and derivative instruments as well as hedge funds.



Valuation techniques

The fair value of these investments is determined based on the fair values reported by the funds' administrators or general partners and reflects the fair value of the underlying equity, fixed income or derivative instruments, as applicable. PSPIB reviews the fair value received and, where necessary, the impact of restrictions on the sale or redemption of such investments is taken into consideration.

(V) Amounts receivable and payable from pending trades

Amounts receivable from pending trades consist of proceeds on sales of investments, excluding derivative financial instruments, which have been traded but remain unsettled at the end of the reporting period.

Amounts payable from pending trades consist of the cost of purchases of investments, excluding derivative financial instruments, which have been traded but remain unsettled at the end of the reporting period.

Valuation techniques

The fair value of amounts receivable and payable from pending trades reflects the value at which their underlying original sale or purchase transactions were undertaken.

(VI) Interest and dividends receivable

Interest and dividends are recorded at the amounts expected to be received at the end of the reporting period, which due to their short-term maturity, approximates fair value.

(VII) Interest payable

With respect to the borrowings described in Note 6(A)(XI), interest is accrued at the amount expected to be paid at the end of the reporting period, which approximates fair value.

(VIII) Securities sold short

Securities sold short reflect PSPIB's obligation to purchase securities pursuant to short selling transactions. In such transactions, PSPIB sells securities it does not own with an obligation to purchase similar securities on the market to cover its position.

Valuation techniques

Using quoted market prices that are based on the most representative price within the bid-ask spread, the fair value of securities sold short is measured using the same method as the similar long positions presented within public markets and fixed income.



(IX) Collateral payable

As part of securities lending and certain OTC derivative transactions, cash collateral is received and reinvested by PSPIB. PSPIB recognizes cash collateral received with a corresponding payable. The payable balance reflects the obligation of the transferee to return cash collateral to the transferor at the end of the transaction in the absence of an event of default by the transferor.

(X) Securities sold under repurchase agreements and purchased under reverse repurchase agreements

As described in Note 2(G), PSPIB is party to repurchase and reverse repurchase agreements.

Valuation techniques

Obligations to repurchase or resell the securities sold or purchased under such agreements are recorded at cost plus accrued interest, which due to their short-term maturity, approximates fair value.

(XI) Borrowings under the capital market debt program

PSPIB's capital market debt program is described in Note 11(B).

Valuation techniques

Short-term promissory notes are recorded at cost plus accrued interest, which due to their short-term maturity, approximates fair value. The fair value of PSPIB's medium-term notes is based on prices that are obtained from third-party pricing sources. Such prices are determined using an interest rate curve with a spread consistent with PSPIB's credit quality.

(B) Derivative-related assets and liabilities

Derivative financial instruments are financial contracts that are settled at a future date. The value of such instruments is derived from changes in the value of the underlying assets, interest or exchange rates. Derivative financial instruments do not, typically, require an initial net investment. In certain cases, they require an initial net investment that is less than what would be required to hold the underlying position directly. Derivative financial instruments can be listed or traded OTC. OTC instruments consist of those that are bilaterally negotiated and settled, and those that are cleared (OTC-cleared) by a central clearing party (CCP).

PSPIB uses derivative financial instruments to enhance returns or to replicate investments synthetically. Derivatives are also used to reduce the risk associated with existing investments.

PSPIB uses the following types of derivative financial instruments:



(I) Swaps

Swaps are transactions whereby two counterparties exchange cash flow streams with each other based on predetermined conditions that include a notional amount and a term. Swaps are used to increase returns or to adjust exposures of certain assets without directly purchasing or selling the underlying assets.

(II) Futures

Futures are standardized contracts to take or make delivery of an asset (buy or sell) at a predefined price and predefined future date. Futures are used to adjust exposures to specified assets without directly purchasing or selling the underlying assets.

(III) Forwards

Forwards are contracts involving the sale by one party and the purchase by another party of a predefined amount of an underlying instrument, at a predefined price and at a predefined date in the future. Forwards are used to adjust exposures to specified assets without directly purchasing or selling the underlying assets.

(IV) Options

Options are contracts where the seller gives the purchaser the right, but not the obligation, to buy or sell a given amount of an underlying security, index, commodity, currency, interest rate, credit or other financial instrument, at an agreed-upon price stipulated in advance, either at a determined date or at any time before the predefined maturity date.

(V) Warrants and rights

Warrants are options to purchase an underlying asset which is in the form of a transferable security and which can be listed on an exchange or traded OTC.

Rights are securities giving shareholders entitlement to purchase new shares issued by a corporation at a predetermined price (normally less than the current market price) in proportion to the number of shares already owned. Rights are issued only for a short period of time, after which they expire.

(VI) Determination of fair value of derivative financial instruments

Listed derivative financial instruments are recorded at fair value using quoted market prices that are based on the most representative price within the bid-ask spread. OTC-cleared derivatives are recorded at fair value using prices obtained from the CCP. OTC derivatives are valued using appropriate valuation techniques such as discounted cash flows. These techniques use significant inputs that are observable in the market such as current market yields.



(VII) Notional values and fair values of derivative-related assets and liabilities

Notional values of derivative financial instruments are not recorded as assets or liabilities as they represent the face amount of the contract. Except for credit derivatives, notional values do not represent the potential gain or loss associated with the market or credit risk of such transactions disclosed below. Rather, they serve as the basis upon which the cash flows and the fair value of the contracts are determined.



The following table summarizes the derivatives portfolio as at March 31 (\$ millions):

		2018			2017	
	Notional	Faiı	r value	Notional	Fair \	/alue
	value	Assets	Liabilities	value	Assets	Liabilities
Equity and commodity derivatives						
Listed: Futures	\$2,754	\$0	\$0	\$1,019	\$0	\$0
Listed: Warrants and rights	2	2	0	2	6	0
Listed: Options: Purchased	7,684	183	0	2,810	23	0
Written	5,238	0	(104)	2,355	0	(20)
ОТС						
Swaps	19,430	105	(471)	21,009	187	(82)
Options: Purchased	1,106	32	0	1,385	35	0
Written	619	0	(23)	1,348	0	(32)
Currency derivatives						
Listed: Futures	87	0	0	99	0	0
ОТС						
Forwards	20,140	144	(304)	20,439	72	(220)
Swaps	2,180	1	(41)	3,333	12	(32)
Options: Purchased	6,007	42	0	6,970	65	0
Written	6,171	0	(36)	7,082	0	(50)
Interest rate derivatives						
Listed: Futures	10,595	0	0	5,764	0	0
Listed: Options: Purchased	35,942	13	0	24,974	4	0
Written	31,087	0	(11)	27,559	0	(2)
ОТС						
Swaps	10,594	127	(105)	9,021	114	(69)
Options: Purchased	36,217	181	0	25,868	129	0
Written	37,889	0	(152)	34,104	0	(89)
OTC-cleared:			, ,			,
Swaps	47,297	0	0	28,433	0	0
Credit derivatives	·			,		
OTC						
Credit default swaps: Purchased	902	0	(11)	788	0	(13)
Written ¹	171	2	Ó	216	3	Ò
Options: Purchased	468	3	0	0	0	0
Written	0	0	0	0	0	0
OTC-cleared				-	-	_
Credit default swaps: Purchased	900	0	0	603	0	0
Written ¹	437	0	0	862	0	0
Total		\$835	\$(1,258)		\$650	\$(609)
		7,50	+(:,=00)		4000	Ψ(000)

PSPIB, through written credit default swaps, indirectly guarantees the underlying reference obligations. The maximum potential
exposure is the notional amount of the written credit default swaps as shown in the table above.



Total derivative-related assets and liabilities as at March 31 are comprised of (\$ millions):

		2018		2017			
	Notional	Fa	Fair value		Fair value		
	value	Assets	Liabilities	Notional value	Assets	Liabilities	
Listed derivatives	\$93,389	\$198	\$(115)	\$64,582	\$33	\$(22)	
OTC derivatives	141,894	637	(1,143)	131,563	617	(587)	
OTC- cleared derivatives	48,634	0	0	29,898	0	0	
Total		\$835	\$(1,258)		\$650	\$(609)	

The terms to maturity based on the notional value for the derivatives were as follows as at March 31 (\$ millions):

	2018	2017
Less than 3 months	\$91,422	\$80,326
3 to 12 months	87,057	75,079
Over 1 year	105,438	70,638

(C) Fair value hierarchy

(I) Classification

Financial assets and financial liabilities described under Note 6(A) are classified within the fair value hierarchy, described as follows, based on the lowest level of input that is significant to the fair value measurement as a whole.

- ▶ Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that PSPIB can access at the end of the reporting period.
- ▶ Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or the liability, either directly or indirectly. Level 2 inputs include:
 - (i) quoted prices for similar assets or liabilities in active markets.
 - (ii) quoted prices for identical or similar assets or liabilities in markets that are not active.
 - (iii) inputs other than quoted prices that are observable for the asset or liability.
 - (iv) market-corroborated inputs.



▶ Level 3 inputs are unobservable inputs for the asset or liability that are used within model-based techniques. They reflect PSPIB's assessment of the assumptions that market participants would use in pricing the assets or liabilities.

The classification within the levels of the hierarchy is established at the time of the initial determination of fair value of the asset or liability and reviewed at the end of each reporting period. PSPIB determines whether a transfer between levels has occurred and recognizes such transfer at the beginning of the reporting period.



The following table shows the fair value of financial assets and financial liabilities as at March 31, 2018, classified within the fair value hierarchy (\$ millions):

	Level 1	Level 2	Level 3	Total fair value
Investments				
Public markets				
Canadian equity	\$2,467	\$626	\$0	\$3,093
Foreign equity	21,432	2,342	1,374	25,148
Private markets				
Real estate	0	0	19,372	19,372
Private equity	0	0	11,804	11,804
Infrastructure	0	0	12,949	12,949
Natural resources	0	0	3,875	3,875
Fixed income				
Cash and money market securities	0	8,256	0	8,256
Government and corporate bonds	0	16,275	119	16,394
Inflation-linked bonds	0	8,967	0	8,967
Private debt securities	0	0	10,252	10,252
Other fixed income securities	0	9	8	17
Alternative investments	0	1,211	5,138	6,349
Total investments	\$23,899	\$37,686	\$64,891	\$126,476
Investment-related assets				•
Amounts receivable from pending trades	\$0	\$809	\$0	\$809
Interest receivable	0	305	0	305
Dividends receivable	0	97	0	97
Securities purchased under reverse repurchase agreements	0	1,355	0	1,355
Derivative-related assets	145	690	0	835
Total investment-related assets	\$145	\$3,256	\$0	\$3,401
Investments representing financial assets at FVTPL	\$24,044	\$40,942	\$64,891	\$129,877
Investment-related liabilities				,
Amounts payable from pending trades	\$0	\$(845)	\$0	\$(845)
Interest payable	0	(41)	0	(41)
Securities sold short	(3,679)	(1,095)	0	(4,774)
Collateral payable	0	(2,593)	0	(2,593)
Securities sold under repurchase agreements	0	(417)	0	(417)
Derivative-related liabilities	(115)	(1,143)	0	(1,258)
Investment-related liabilities representing financial liabilities at FVTPL	\$(3,794)	\$(6,134)	\$0	\$(9,928)
Borrowings				
Capital market debt financing	\$0	\$(8,849)	\$0	\$(8,849)
Borrowings representing financial liabilities designated at FVTPL	\$0	\$(8,849)	\$0	\$(8,849)
Net investments	\$20,250	\$25,959	\$64,891	\$111,100



The following table shows the fair value of financial assets and financial liabilities as at March 31, 2017, classified within the fair value hierarchy (\$ millions):

	Level 1	Level 2	Level 3	Total fair value
Investments				
Public markets				
Canadian equity	\$3,975	\$641	\$0	\$4,616
Foreign equity	18,679	2,526	215	21,420
Private markets				
Real estate	0	0	17,670	17,670
Private equity	0	0	9,886	9,886
Infrastructure	0	0	9,586	9,586
Natural resources	0	0	3,100	3,100
Fixed income				
Cash and money market securities	0	8,980	0	8,980
Government and corporate bonds ¹	0	18,003	187	18,190
Inflation-linked bonds	0	5,608	0	5,608
Private debt securities	0	0	6,645	6,645
Other fixed income securities ¹	0	29	12	41
Alternative investments	0	1,107	4,712	5,819
Total investments	\$22,654	\$36,894	\$52,013	\$111,561
Investment-related assets				
Amounts receivable from pending trades	\$0	\$832	\$0	\$832
Interest receivable	0	231	0	231
Dividends receivable	0	96	0	96
Securities purchased under reverse repurchase agreements	0	1,926	0	1,926
Derivative-related assets	33	617	0	650
Total investment-related assets	\$33	\$3,702	\$0	\$3,735
Investments representing financial assets at FVTPL	\$22,687	\$40,596	\$52,013	\$115,296
Investment-related liabilities				
Amounts payable from pending trades	\$0	\$(781)	\$0	\$(781)
Interest payable	0	(28)	0	(28)
Securities sold short ²	(2,082)	(983)	0	(3,065)
Collateral payable ²	0	(3,696)	0	(3,696)
Securities sold under repurchase agreements	0	(804)	0	(804)
Derivative-related liabilities	(22)	(587)	0	(609)
Investment-related liabilities representing financial liabilities at FVTPL	\$(2,104)	\$(6,879)	\$0	\$(8,983)
Borrowings				
Capital market debt financing		\$0	\$(7,846)	\$0 \$(7,846)



Borrowings representing financial liabilities designated at FVTPL	\$0	\$(7,846)	\$0	\$(7,846)
Net investments	\$20,583	\$25,871	\$52,013	\$98,467

- During the year ended March 31, 2018, floating rate notes were reclassified out of other fixed income securities and into government and corporate bonds in order to better reflect their nature and common characteristics. Accordingly, comparative figures were adjusted to decrease other fixed income securities within Level 2 by \$2,367 million and increase government and corporate bonds within Level 2 by the same amount.
- During the year ended March 31, 2018, collateral payable was reclassified out of securities sold short and presented separately under the new caption collateral payable in order to better reflect their nature and common characteristics. Accordingly, comparative figures were adjusted for consistency.

During the year ended March 31, 2018, listed equity securities with a fair value of \$31 million, classified as Level 2 as at March 31, 2017, were transferred to Level 1 as a result of trading restrictions having expired.

There were no transfers between Level 1 and Level 2 during the year ended March 31, 2017.

(II) Process for Level 3 fair value determination

The valuation process is monitored and governed by an internal valuation committee (VC). This committee is responsible for overseeing all aspects of fair value determination. This includes establishing valuation methodologies and procedures for each type of investment and ensuring they are complied with. Valuation methodologies established are based on widely recognized practices that are consistent with professional appraisal standards. Such standards include, among others, the International Private Equity and Venture Capital Valuation Guidelines, the Canadian Uniform Standards of Professional Appraisal Practice and the Uniform Standards of Professional Appraisal Practice in the United States of America.

The fair value of investments classified as Level 3 is determined at least annually. Quarterly, the fair value is reviewed and adjusted, as appropriate, to reflect the impact of any significant market or investment-specific events or circumstances. For each investment, the relevant valuation methodology is applied consistently over time as appropriate in the prevailing circumstances. The appropriateness of significant changes in valuation methodologies is reviewed by the VC.

In cases where the services of third-party appraisers are used, PSPIB ensures their independence and that valuation methods used are consistent with professional appraisal standards outlined above. In validating the work performed by appraisers, PSPIB ensures that the assumptions used correspond to financial information and forecasts of the underlying investment.

With respect to fund investments classified as Level 3, the annual fair value is generally determined based on audited financial statements received from the fund's general partner. In certain cases fair value is obtained from information provided by the fund's administrators and is reviewed by PSPIB to ensure reasonableness and adherence to acceptable industry valuation methods. Where necessary, the impact of restrictions on the sale or redemption of such investments is taken into consideration in determining fair value.



(III) Level 3 significant inputs

The following table outlines key information with respect to significant inputs related to financial assets and financial liabilities categorized within Level 3 as at March 31, 2018:

Financial assets and financial liabilities	Type of investment	Fair value (\$ millions)	Significant valuation techniques	Significant unobservable inputs	Range (weighted average)
Public markets					
Foreign equity	Direct investments	\$1,374	Net asset value method (NAV) ¹	n/a	n/a
Private markets		•		0.0	
Real estate	Direct and co-investments	\$18,178	Discounted cash flow (DCF)	Discount rate ^{2, 3}	5.00% to 22.10% (7.94%)
				Terminal capitalization rate ^{2, 3}	4.25% to 9.75% (5.92%)
			Direct capitalization	Capitalization rate ^{2, 4}	2.75% to 9.09% (5.30%)
				Stabilized occupancy rate ^{4, 5}	94.00% to 100.00% (98.29%)
			Sales comparison approach	Price per square foot ^{4, 5}	\$27.50 to \$1,107.92 (\$90.83)
			NAV ¹	n/a	n/a
			Transaction price	n/a	n/a
	Fund investments	\$1,194	NAV ¹	n/a	n/a
Other private markets	Direct and co-investments	\$19,756	DCF	Discount rate ²	6.00% to 12.70% (8.94%)
			Market comparables	n/a	n/a
			NAV ¹	n/a	n/a
			Transaction price	n/a	n/a
	Fund investments	\$8,872	NAV ¹	n/a	n/a
Fixed income Corporate bonds	Convertible bonds	\$119	DCF	Discount rate ²	4.70% to 10.00% (7.40%)
Private debt securities	Direct and co-investments	\$7,374	DCF	Discount rate ²	5.90% to 17.25% (9.79%)
			NAV ¹	n/a	n/a
			Transaction price	n/a	n/a
	Fund investments	\$2,878	NAV ¹	n/a	n/a
Other fixed income	Asset-backed term notes	\$8	Third-party pricing ¹	n/a	n/a
Alternative investments	Fund investments	\$5,138	NAV ¹	n/a	n/a
Total		\$64,891			

^{1.} In certain cases, fair value is determined by third parties where valuation information is not available to PSPIB.

^{5.} An increase (decrease) in this unobservable input, taken individually, generally results in an increase (decrease) in fair value.



^{2.} An increase (decrease) in this unobservable input, taken individually, generally results in a decrease (increase) in fair value.

^{3.} An increase (decrease) in the discount rate is generally accompanied by an increase (decrease) of the terminal capitalization

^{4.} There is no predictable direct relationship between this input and any other significant unobservable input.

The following table outlines key information with respect to significant inputs related to financial assets and financial liabilities categorized within Level 3 as at March 31, 2017:

Financial assets and financial liabilities	Type of investment	Fair value (\$ millions)	Significant valuation techniques	Significant unobservable inputs	Range (weighted average)
Public markets					
Foreign equity	Direct investments	\$215	Net asset value method (NAV) ¹	n/a	n/a
Private markets					
Real estate	Direct and co-investments	\$16,638	Discounted cash flow (DCF)	Discount rate ^{2, 3}	4.50% to 25.00% (8.06%)
				Terminal capitalization rate ^{2, 3}	4.25% to 10.25% (6.04%)
			Direct capitalization	Capitalization rate ^{2, 4}	2.75% to 8.00% (5.69%)
				Stabilized occupancy rate ^{4, 5}	94.00% to 100.00% (97.77%)
			Sales comparison approach	Price per square foot ^{4, 5}	\$2.82 to \$1,115.10 (\$153.82)
			NAV ¹	n/a	n/a
			Transaction price	n/a	n/a
	Fund investments	\$1,032	NAV ¹	n/a	n/a
Other private markets	Direct and co-investments	\$15,711	DCF	Discount rate ²	5.91% to 12.70% (9.36%)
			Market comparables	n/a	n/a
			NAV ¹	n/a	n/a
			Transaction price	n/a	n/a
	Fund investments	\$6,861	NAV ¹	n/a	n/a
Fixed income Corporate bonds	Convertible bonds	\$187	DCF	Discount rate ²	3.90% to 14.10% (7.50%)
Private debt securities	Direct and co-investments	\$3,529	DCF	Discount rate ²	4.49% to 12.25% (9.07%)
			NAV ¹	n/a	n/a
			Transaction price	n/a	n/a
	Fund investments	\$3,116	NAV ¹	n/a	n/a
Other fixed income	Asset-backed term notes	\$12	Third-party pricing ¹	n/a	n/a
Alternative investments	Fund investments	\$4,712	NAV ¹	n/a	n/a
Total		\$52,013			

^{1.} In certain cases, fair value is determined by third parties where valuation information is not available to PSPIB.



^{2.} An increase (decrease) in this unobservable input, taken individually, generally results in a decrease (increase) in fair value.

^{3.} An increase (decrease) in the discount rate is generally accompanied by an increase (decrease) of the terminal capitalization rate.

^{4.} There is no predictable direct relationship between this input and any other significant unobservable input.

^{5.} An increase (decrease) in this unobservable input, taken individually, generally results in an increase (decrease) in fair value.

(IV) Level 3 reconciliation

The following table shows a reconciliation of all movements related to financial assets and financial liabilities categorized within Level 3 for the year ended March 31, 2018 (\$ millions):

	Opening balance	Purchases	Sales	Settlements	Realized gains	Unrealized gains¹	Transfer out of Level 3	Closing balance
Public markets	\$215	\$477	\$(42)	\$0	\$5	\$719	\$0	\$1,374
Private markets	40,242	7,138	(3,256)	0	808	3,077	(9)	48,000
Fixed income	6,844	5,675	(2,325)	(19)	158	46	0	10,379
Alternative investments	4,712	970	(679)	0	58	77	0	5,138
Derivative- related receivables/ payables (net)	0	13	0	(13)	0	0	0	0
Total	\$52,013	\$14,273	\$(6,302)	\$(32)	\$1,029	\$3,919	\$(9)	\$64,891

^{1.} Includes pension plan allocation adjustments.

As at March 31, 2017, a private market investment was classified under Level 3 as its fair value was determined based on significant unobservable inputs. During the year ended March 31, 2018, the investment was transferred to Level 2 as the related securities became publicly traded. The securities held by PSPIB are unregistered and can only be sold upon their registration.



The following table shows a reconciliation of all movements related to financial assets and financial liabilities categorized within Level 3 for the year ended March 31, 2017 (\$ millions):

	Opening balance	Purchases	Sales	Settlements	Realized gains	Unrealized gains ¹	Transfer out of Level 3	Closing balance
Public markets	\$0	\$190	\$0	\$0	\$0	\$25	\$0	\$215
Private markets	33,559	7,155	(1,986)	0	484	1,030	0	40,242
Fixed income	4,560	3,795	(1,414)	(493)	281	115	0	6,844
Alternative investments	3,916	664	(348)	0	39	441	0	4,712
Total	\$42,035	\$11,804	\$(3,748)	\$(493)	\$804	\$1,611	\$0	\$52,013

^{1.} Includes pension plan allocation adjustments.

(V) Level 3 sensitivity analysis

In the course of measuring fair value of financial instruments classified as Level 3, valuation techniques used incorporate assumptions that are based on non-observable data. Significant assumptions used for each asset class are described in Note 6(C)(III). Although such assumptions reflect PSPIB's best judgment, the use of reasonably possible alternative assumptions could yield different fair value measures representing, at a minimum, a 3% increase and 3% decrease as at March 31, 2018 (3% increase and 3% decrease as at March 31, 2017) in the fair value of financial instruments categorized as Level 3. This excludes fund investments where a sensitivity analysis is not possible given the underlying assumptions used are not available to PSPIB. In the case of fund investments, the fair value is determined as indicated in Note 6(C)(II).



(D) Collateral pledged and received

PSPIB is party to agreements that involve pledging and holding collateral, as outlined in Notes 2(F), 2(G) and 8(B)(I). The following table illustrates the fair values of the pension plan's allocated collateral, as well as the securities under the lending and borrowing programs and the securities under the repurchase and reverse repurchase agreements as at March 31 (\$ millions):

	2018	2017
Securities lending and borrowing		
Securities lent	\$8,385	\$9,613
Collateral held ¹	8,923	10,239
Securities borrowed	3,705	2,093
Collateral pledged ²	3,835	2,193
Securities repurchase and reverse repurchase agreements		
Securities sold under repurchase agreements	424	806
Collateral pledged	424	805
Securities purchased under reverse repurchase agreements	1,367	1,932
Collateral held ³	1,362	1,928
Derivatives contracts		
Collateral pledged	1,291	224
Collateral held ⁴	2	165

^{1.} The minimum fair value of cash collateral required is equal to 102% of the fair value of the securities lent, and in the case of securities collateral 105%. As part of collateral held, cash amounted to \$2,544 million for the pension plan as at March 31, 2018 (\$3,688 million as at March 31, 2017) and securities amounted to \$6,379 million as at March 31, 2018 (\$6,551 million as at March 31,2017). All cash collateral is reinvested.



^{2.} The minimum fair value of collateral required is equal to 100% of the fair value of the securities borrowed.

^{3.} The collateral received is in the form of securities of which \$1,094 million has been used in connection with short selling transactions as at March 31, 2018 (\$984 million as at March 31, 2017) and nil has been used in connection with securities sold under repurchase agreements (\$150 million as at March 31, 2017).

^{4.} As part of collateral held, cash amounted to \$1 million as at March 31, 2018 (\$7 million as at March 31, 2017) and securities amounted to \$1 million as at March 31, 2018 (\$158 million as at March 31, 2017). All cash collateral is reinvested.

7. Interest in other entities

(A) Subsidiaries, joint ventures and associates

In the normal course of business, investments in private markets are commonly held through investment entity subsidiaries formed by PSPIB. As at March 31, 2018, 103 investment entity subsidiaries were incorporated in North America, 23 in Europe, 11 in Oceania, 4 in Central and South America, 1 in Africa and 1 in Asia (103 in North America, 23 in Europe, 10 in Oceania, 4 in Central and South America, 1 in Africa and 1 in Asia as at March 31, 2017).

In addition, PSPIB controlled 80 investees directly or through its investment entity subsidiaries as at March 31, 2018 (77 investees as at March 31, 2017).

The following tables present, in descending order, the most significant investees held directly or indirectly by PSPIB where it has control, joint control or significant influence.

As at March 31, 2018:

Entity's name	Principal place of business	Ownership interest held by PSPIB (%)	Relationship to PSPIB
Revera Inc.	North America	100	Controlled investee
AviAlliance GmbH	Europe	100	Controlled investee
Kaingaroa Timberlands Ltd.	Oceania	56	Jointly controlled investee
Roadis Transportation B.V.	Global	100	Controlled investee
SEGRO European Logistics Partnership S.a.r.I.	Europe	50	Jointly controlled investee
FirstLight Power Resources Holding Inc.	North America	100	Controlled investee
Roccapina Fund, L.P.	North America	100	Controlled investee
TDF S.A.S.	Europe	22	Associate
Cubico Sustainable Investments Limited	Global	50	Jointly controlled investee
Big Box Properties	North America	49	Jointly controlled investee



As at March 31, 2017:

Entity's name	Principal place of business	Ownership interest held by PSPIB (%)	Relationship to PSPIB
Revera Inc.	North America	100	Controlled investee
Kaingaroa Timberlands Ltd.	Oceania	56	Jointly controlled investee
AviAlliance GmbH	Europe	100	Controlled investee
Roadis Transportation B.V.	Global	100	Controlled investee
FirstLight Power Resources Holding Inc.	North America	100	Controlled investee
Roccapina Fund, L.P.	North America	100	Controlled investee
SEGRO European Logistics Partnership S.a.r.l.	Europe	50	Jointly controlled investee
Telesat Holdings Inc.	North America	35	Associate
TDF S.A.S.	Europe	22	Associate
Big Box Properties	North America	49	Jointly controlled investee

In addition to the above, PSPIB holds wholly owned subsidiaries that solely provide it with services that relate to its investment activities. Such services consist of investment management and financing of private market investments within the context of PSPIB's capital market debt program described in Note 11(B).

(B) Structured entities

PSPIB holds interests in partnerships and funds mainly in the context of its investments in private markets. Given their nature, such entities commonly have the characteristics of a structured entity as defined by IFRS. These entities are held as investments and do not expose PSPIB to additional risks or returns compared to interests held in non-structured entities.

Information regarding structured entities is included, as applicable, within disclosures of investment risk management under Note 8, guarantees and indemnities under Note 24 and commitments under Note 25.



8. Investment risk management

PSPIB is required to act in the best interests of the contributors and beneficiaries under the pension plan and for maximizing returns without undue risk of loss. In pursuit of this objective, PSPIB established an Enterprise Risk Management Policy (ERM Policy). The ERM Policy provides a framework for identifying, evaluating, managing, mitigating, monitoring and reporting the investment and non-investment risks to which PSPIB is exposed.

As part of the overall ERM policy, the Investment Risk Management Policy (IRM Policy) supports the management of risk inherent to the investment decision making process. The IRM Policy outlines a framework that is designed to ensure that investment activities respect PSPIB's risk philosophy and align with the tolerance and limits of its risk appetite. The IRM Policy also supplements the Statement of Investment Policies, Standards and Procedures (SIP&P), whose objective is to effectively manage investment risks related to the implementation of PSPIB's various investment strategies. Investment risks include market, credit and liquidity risks.

(A) Market risk

Market risk is the risk that the value of an investment will fluctuate as a result of an adverse financial outcome due to changes in the factors that drive the value, such as changes in market prices, changes caused by factors specific to the individual investment, volatility in share and commodity prices, interest rate, foreign exchange or other factors affecting similar securities traded in the market.

(I) Measurement of market risk

The absolute annualized volatility of the total portfolio is used as the primary measure of market risk. The absolute volatility is a statistical measure of the size of changes in investment returns of a given investment or portfolio of investments. It is used to illustrate the potential loss of value in an investment or portfolio of investments as a result of fluctuations in market prices.

PSPIB uses 7 years' worth of market returns scaled to a 12-month holding period to calculate the absolute volatility. For investments that are not actively traded, the calculation of the absolute volatility uses securities with similar risk attributes as a proxy.

The absolute volatility is statistically valid under normal market conditions and does not specifically consider losses from severe market events. It also assumes that the future will behave in a pattern similar to the past. Consequently, if future market conditions differ significantly from those of the past, potential losses may differ from those originally estimated.



The following table shows the absolute volatility of the total portfolio expressed as a percentage of net investments as at March 31:

	2018 (%)	2017 (%)
Absolute volatility	7.2	7.6

Stress testing

Although the absolute volatility is a widely accepted risk measure, it is complemented by other risk measurement methodologies that provide greater insight on market risk. PSPIB uses stress testing and scenario analysis to examine the impact on financial results of abnormally large movements in risk factors. Such techniques are used to test a portfolio's sensitivity to various risk factors and key model assumptions. These methods also use historically stressed periods to evaluate how a current portfolio reacts under such circumstances. Stress testing and scenario analysis are also deployed to assess new product performance.

(II) Interest rate risk

Interest rate risk refers to the risk that fluctuations in interest rates will directly affect the fair value of the pension plan's net asset values.

The terms to maturity of the classes of financial instruments, outlined in Note 6(A), with the most significant exposure to interest rate risk were as follows as at March 31, 2018 (\$ millions):

	Less than 1 year	1 to 5 years	5 to 10 years	Over 10 years	Other	Total
Cash and money market securities	\$0	\$0	\$0	\$0	\$8,256 ¹	\$8,256
Government and corporate bonds	2,529	6,007	3,787	2,487	1,584²	16,394
Inflation-linked bonds	0	2,977	3,201	2,789	0	8,967
Private debt securities	2	1,034	5,079	1,119	3,018 ³	10,252
Other fixed income securities	8	0	0	0	92	17
Total fixed income	\$2,539	\$10,018	\$12,067	\$6,395	\$12,867	\$43,886

^{1.} Due to their short-time maturity, these investments are not significantly exposed to interest rate risk.

^{3.} Information in connection with the terms to maturity of fund and certain directly held investments included as part of private debt securities is not available.



^{2.} Certain fixed income securities are not significantly exposed to interest rate risk as their prescribed rates are variable.

The terms to maturity of the classes of financial instruments, outlined in Note 6(A), with the most significant exposure to interest rate risk were as follows as at March 31, 2017 (\$ millions):

	Less than 1 year	1 to 5 years	5 to 10 years	Over 10 years	Other	Total
Cash and money market securities	\$0	\$0	\$0	\$0	\$8,980 ¹	\$8,980
Government and corporate bonds ⁴	1,774	6,846	4,424	2,779	2,3672	18,190
Inflation-linked bonds	3	1,316	2,081	2,208	0	5,608
Private debt securities	57	650	2,579	0	$3,359^3$	6,645
Other fixed income securities ⁴	13	15	0	0	13 ²	41
Total fixed income	\$1,847	\$8,827	\$9,084	\$4,987	\$14,719	\$39,464

- 1. Due to their short-time maturity, these investments are not significantly exposed to interest rate risk.
- 2. Certain fixed income securities are not significantly exposed to interest rate risk as their prescribed rates are variable.
- 3. Information in connection with the terms to maturity of fund and certain directly held investments included as part of private debt securities is not available.
- 4. During the year ended March 31, 2018, floating rate notes were reclassified out of other fixed income securities and into government and corporate bonds in order to better reflect their nature and common characteristics. Accordingly, comparative figures were adjusted to decrease other fixed income securities within the "Other" column by \$2,367 million and increase government and corporate bonds within the "Other" column by the same amount.

The terms to maturity of PSPIB's capital market debt financing are disclosed in Note 11(B).

Certain alternative investments, reverse repurchase agreements, as well as derivative contracts described in Notes 6(A)(IV), 6(A)(X) and 6(B), respectively, are also subject to interest rate risk exposures. These exposures are reflected in the absolute volatility calculation described in Note 8(A)(I).

(III) Foreign currency risk

PSPIB is exposed to currency risk through holding of investments that is, direct and indirect holdings of securities, units in pooled funds and units in limited partnerships or, investment-related liabilities in various currencies. Fluctuations in the relative value of the Canadian dollar against these foreign currencies can result in a positive or a negative effect on the fair value of the investments. To mitigate this risk, PSPIB may take, through foreign forward contracts or cross currency swaps, positions in foreign currencies.



The underlying foreign currency exposures of net investments for the pension plan were as follows as at March 31 (\$ millions):

	20)18	2017		
Currency	Fair value	% of total	Fair value	% of total	
US dollar	\$59,778	68.4	\$46,247	70.5	
Euro	8,856	10.1	4,122	6.3	
Japanese yen	2,579	3.0	2,397	3.6	
British pound	2,143	2.5	2,019	3.1	
Australian dollar	1,914	2.2	847	1.3	
South Korean won	1,895	2.2	1,738	2.6	
Hong Kong dollar	1,739	2.0	867	1.3	
Brazilian real	1,565	1.8	1,481	2.3	
Mexican peso	1,420	1.6	574	0.9	
Indian rupee	999	1.1	896	1.4	
New Taiwan dollar	747	0.9	723	1.1	
Swiss franc	579	0.7	675	1.0	
Others	3,151	3.5	3,046	4.6	
Total	\$87,365	100.0	\$65,632	100.0	

As at March 31, 2018, PSPIB and its investment entity subsidiaries also had commitments, denominated in foreign currencies of \$16,964 million for the pension plan (US\$10,645 million, €1,844 million, £130 million, 16 million South African rands, 9,836 million Colombian pesos and 1,045 million Mexican pesos) which were not included in the foreign currency exposure table above.

As at March 31, 2017, PSPIB and its investment entity subsidiaries also had commitments, denominated in foreign currencies of \$14,655 million for the pension plan (US\$9,099 million, €1,516 million, £138 million, 16 million South African rands, 42 million Brazilian reals, 9,840 million Colombian pesos, 168 million Mexican pesos and 91 million Australian dollars) which were not included in the foreign currency exposure table above.



(B) Credit risk

PSPIB is exposed to credit risk, which is the risk of non-performance of a debtor on whom PSPIB relies to fulfill contractual or financial obligations. That is, the risk that the issuer of a debt security or that the counterparty to a derivative contract, to a securities lending and borrowing transaction or to securities purchased under reverse repurchase agreements, is unable to meet its financial obligations.

Credit risk encompasses the risk of a deterioration of creditworthiness and the relevant concentration risk. Credit risk monitoring entails an evaluation of the credit quality of each issuer and counterparty that transacts with PSPIB. To perform this evaluation for public issuers and counterparties, PSPIB relies on four recognized credit rating agencies. A minimum of two credit ratings are used to classify each security. If the agencies disagree as to a security's credit quality, PSPIB uses the lowest of the available ratings. For private issuers, PSPIB assigns internal credit ratings to issuers and measures the combined risk profile against set targets. To assign risk ratings to issuers, PSPIB uses methodologies comparable to those used by recognized rating agencies.

As at March 31, 2018, the pension plan's maximum exposure to credit risk amounted to \$46 billion (\$40 billion as at March 31, 2017). This amount is presented before collateral held and netting arrangements that do not qualify for offsetting under IFRS. The maximum credit exposure excludes guarantees disclosed in Note 24 as well as investments in funds classified as alternative investments in Note 6(A). Such funds hold fixed income securities among other types of instruments.

To monitor the evolution of credit risk, PSPIB periodically produces a concentration report by credit rating of credit-sensitive securities. The concentration of credit risk by credit rating was as follows as at March 31:

C	redit rating	2018 (%)	2017 (%)
AAA to AA		51.2	54.2
Α		20.9	20.0
BBB		2.5	4.5
BB or below		24.4	19.9
No rating ¹		1.0	1.4
Total		100.0	100.0

Includes securities for public issuers and counterparties that are either not rated by credit rating agencies or rated by a single credit rating agency.



(I) Counterparty risk

Counterparty risk represents the credit risk from current and potential exposure related to transactions involving derivative contracts, securities lending and borrowing as well as securities repurchase and reverse repurchase agreements. In order to minimize counterparty risk, PSPIB requires that counterparties provide adequate collateral and meet its credit rating requirements. PSPIB frequently monitors the credit rating of its counterparties as determined by recognized credit rating agencies. With respect to derivative contracts, PSPIB has the ability to terminate all trades with most counterparties whose credit rating is downgraded below its requirements.

For OTC derivatives, PSPIB's policy also requires the use of the International Swaps and Derivatives Association (ISDA) Master Agreement with all counterparties to derivative contracts. The ISDA Master Agreement provides the contractual framework within which dealing activities across a full range of OTC products are conducted. In the case of OTC-cleared derivatives, trading activities are regulated between parties under terms that are customary to such transactions.

As a credit mitigation technique, the ISDA Master Agreement contractually binds counterparties to close-out netting provisions in the case of default by one of the counterparties. Additionally, the Credit Support Annex (CSA) to the ISDA Master Agreement enables PSPIB to realize any collateral placed with it in the case of default of the counterparty. The CSA also requires PSPIB to contribute further collateral when requested. All collateral transactions under the CSA are in cash, high-quality debt instruments or securities. The CSA also regulates the exchange of collateral when the credit exposure to a counterparty exceeds a predetermined threshold. Counterparties are generally authorized to sell, repledge or otherwise use collateral held. Similarly, in the case of OTC-cleared derivatives, collateral is required in cash, high quality debt instruments or securities and can be sold, repledged or otherwise used. PSPIB does not sell, repledge or otherwise use any collateral held in the form of securities but does reinvest all cash collateral, with respect to derivative contracts.

With respect to transactions involving securities lending and borrowing agreements as well as securities repurchase and reverse repurchase agreements, collateral requirements are in place to mitigate counterparty risk. Notes 2(F) and 2(G) describe collateral requirements in securities lending and borrowing programs as well as securities repurchase and reverse repurchase agreements.

Information in connection with collateral pledged by PSPIB and its counterparties is disclosed in Note 6(D).



In the case of the securities lending program, PSPIB's exposure to counterparty risk is further mitigated as the custodian of the securities lent assumes the risk that a counterparty will be unable to meet its obligations associated with the collateral requirements.

PSPIB is responsible for counterparty risk monitoring and mitigation as well as maintaining a comprehensive, disciplined, and enterprise-wide process for tracking and managing counterparty risk. As such, PSPIB measures counterparty risk on an ongoing basis, evaluates and tracks the creditworthiness of current counterparties and mitigates counterparty risk through collateral management.

(II) Offsetting

PSPIB is subject to ISDA Master Agreements in relation to its OTC derivative financial instruments as described. Such agreements contain close-out netting provisions applicable only in the case of default. In certain cases, such agreements also allow for offsetting. In cases where the conditions for offsetting were met, financial instruments have been presented net in the statement of financial position. Securities repurchase and reverse repurchase agreements, described in Notes 2(G) and 6(D) are subject to similar arrangements however they are not offset as the conditions for offsetting are not met.



The following tables present the financial assets and liabilities described above (\$ millions):

Financial assets

	Gross	Less: gross	Net amount of financial assets presented	Less: related amounts not set off in the statement of financial position		
	amount of recognized financial assets	recognized financial liabilities set off	cognized in the inancial statement abilities of financial		Collateral held and not recognized	Net
As at March 31, 2018	}					
Reverse repurchase agreements	\$1,355	\$0	\$1,355 ¹	\$360	\$995	\$ 0
OTC-derivatives	666	29	637 ²	632	1	4
Total	\$2,021	\$29	\$1,992	\$992	\$996	\$4
As at March 31, 2017						
Reverse repurchase agreements	\$1,926	\$0	\$1,926 ¹	\$150	\$1,776	\$0
OTC-derivatives	622	5	617 ²	442	126	49
Total	\$2,548	\$5	\$2,543	\$592	\$1,902	\$49

^{1.} As described in Note 6(A)(X).



^{2.} As described in Note 6(B).

Financial liabilities

	Gross amount of recognized financial liabilities	Less: gross amount of recognized financial assets set off	Net amount of financial liabilities presented in the statement of financial position	set off in the	d amounts not e statement of il position Collateral pledged and not derecognized	Net
As at March 31, 2018						
Repurchase agreements	\$417	\$0	\$417 ¹	\$360	\$57	\$0
OTC-derivatives	1,172	29	1,143²	631	511	1
Collateral payable	2	0	2 ³	1	0	1
Total	\$1,591	\$29	\$1,562	\$992	\$568	\$2
As at March 31, 2017						
Repurchase agreements	\$804	\$0	\$804 ¹	\$150	\$654	\$0
OTC-derivatives	592	5	587 ²	442	134	11
Total	\$1,396	\$5	\$1,391	\$592	\$788	\$11

^{1.} As described in Note 6(A)(X).

(C) Liquidity risk

Liquidity risk corresponds to the risk that PSPIB will not be able to meet its financial obligations on a timely basis, with sufficient and readily available cash resources. PSPIB's cash position is monitored on a daily basis. In general, investments in cash, money market securities, floating rate notes, bonds and public equities are expected to be highly liquid as they will be invested in securities that are actively traded. PSPIB utilizes appropriate measures and controls to monitor liquidity risk in order to ensure that there is sufficient liquidity to meet financial obligations as they come due. A liquidity report taking into consideration future forecasted cash flows is prepared and presented to PSPIB's senior management on a weekly basis. This ensures that sufficient cash reserves are available to meet forecasted cash outflows. Additionally, sufficient sources of liquidity are maintained for deployment in case of market disruption.



^{2.} As described in Note 6(B).

^{3.} As described in Note 6(A)(IX). The balance consists of cash collateral received with respect to certain OTC derivative transactions, and is included in Note 6(A) as part of collateral payable.

PSPIB has the ability to raise additional capital through the use of its capital market debt program. This program allows PSPIB to issue short-term promissory notes and medium-term notes. Note 11(B) provides additional information on the usage of the capital market debt program. Furthermore, PSPIB maintains credit facilities for general corporate purposes. Note 11(A) provides additional information with respect to such credit facilities.

The terms to maturity of the notional amount of derivatives are disclosed in Note 6(B).

Financial liabilities

The following tables present the fair value of non-derivative-related financial liabilities as well as derivative-related financial instruments, aggregated according to their maturities as at March 31, 2018 (\$ millions) and excluding the impact of guarantees and indemnities disclosed in Note 24:

	Less than 3 months	3 to 12 months	Over 1 year	Total
Non-derivative-related financial liab	ilities¹			
Amounts payable from pending trades	\$(845)	\$0	\$0	\$(845)
Interest payable	(39)	(2)	0	(41)
Securities sold short	(4,774)	0	0	(4,774)
Collateral payable	(2,593)	0	0	(2,593)
Securities sold under repurchase agreements	(417)	0	0	(417)
Capital market debt financing	(3,434)	(1,153)	(4,262)	(8,849)
Trade payable and other liabilities	(126)	0	(73)	(199)
Total	\$(12,228)	\$(1,155)	\$(4,335)	\$(17,718)

	Less than 3 months	3 to 12 months	Over 1 year	Total			
Derivative-related financial instruments							
Derivative-related assets	\$363	\$175	\$297	\$835			
Derivative-related liabilities ¹	(601)	(346)	(311)	(1,258)			
Total	\$(238)	\$(171)	\$(14)	\$(423)			

^{1.} Liabilities are presented in the earliest period in which the counterparty can request payment.



The following tables present the fair value of non-derivative-related financial liabilities as well as derivative-related financial instruments, aggregated according to their maturities as at March 31, 2017 (\$ millions) and excluding the impact of guarantees and indemnities disclosed in Note 24:

	Less than 3 months	3 to 12 months	Over 1 year	Total
Non-derivative-related financial liab	ilities¹			
Amounts payable from pending trades	\$(781)	\$0	\$0	\$(781)
Interest payable	(26)	(2)	0	(28)
Securities sold short ²	(3,065)	0	0	(3,065)
Collateral payable ²	(3,696)	0	0	(3,696)
Securities sold under repurchase agreements	(804)	0	0	(804)
Capital market debt financing	(4,190)	(900)	(2,756)	(7,846)
Trade payable and other liabilities	(112)	(2)	(54)	(168)
Total	\$(12,674)	\$(904)	\$(2,810)	\$(16,388)

	Less than 3 months	3 to 12 months	Over 1 year	Total			
Derivative-related financial instruments							
Derivative-related assets	\$171	\$245	\$234	\$650			
Derivative-related liabilities ¹	(285)	(131)	(193)	(609)			
Total	\$(114)	\$114	\$41	\$41			

^{1.} Liabilities are presented in the earliest period in which the counterparty can request payment.



^{2.} During the year ended March 31, 2018, collateral payable was reclassified out of securities sold short and presented separately under the new caption collateral payable in order to better reflect their nature and common characteristics. Accordingly, comparative figures were adjusted for consistency.

9. Contributions receivable

The contributions receivable as at March 31 are as follows (\$ millions):

	2018	2017
Plan member contributions for past service elections	\$364	\$465
Other plan member contributions receivable	119	118
Total contributions receivable from plan members	\$483	\$583
Employers' share of contributions for past service elections	\$291	\$387
Other employers contributions receivable	121	121
Total contributions receivable from employers	\$412	\$508
Total contributions receivable	\$895	\$1,091

10. Other assets

The costs of operation of PSPIB are charged to the four plans for which PSPIB provides investment services, namely, the public service pension plan, the Canadian Forces pension plan, the Reserve Force pension plan and the Royal Canadian Mounted Police pension plan. PSPIB allocates the direct costs of investment activities, such as external investment management fees and custodial fees that are included in each pension plans' administrative expenses, based upon the net investments of each pension plan at the time the expense was incurred.

In 2018, 72.6% of PSPIB's costs of operation were allocated to the public service pension plan (72.5% in 2017). These costs are included as administrative expenses and are disclosed in Note 21. Expenses are paid by PSPIB by way of advances from the public service pension plan, which are reimbursed by the three other pension plans on a quarterly basis.

The other assets as at March 31 are as follows (\$ millions):

	2018	2017
Share of expenses receivable from:		
Canadian Forces Pension Plan	\$24	\$21
Royal Canadian Mounted Police Pension Plan	9	8
Reserve Force Pension Plan	1	1
Subtotal	\$34	\$30
Other	131	118
Total other assets	\$165	\$148



11. Borrowings

(A) Credit facilities

During the year ended March 31, 2017, PSPIB entered into a revolving credit facility in the amount of \$2 billion and a demand line of credit in the amount of \$1 billion (together "the credit facilities").

The credit facilities are for general corporate purposes and are available in either Canadian or US currencies. Subject to customary terms and conditions, these credit facilities are available at variable interest rates such as the prime rate and the US base rate.

These credit facilities were not drawn upon as at March 31, 2018, and March 31, 2017.

(B) Capital market debt financing

PSPIB's capital market debt program consists of the private placement of short-term promissory notes as well as medium-term notes issued by PSP Capital Inc., a wholly owned subsidiary of PSPIB. The capital raised is primarily used to finance private market investments. It is unconditionally and irrevocably guaranteed by PSPIB in accordance with its corporate leverage policy.

The maximum amount authorized by PSPIB's Board of Directors for the capital market debt program is 10% of the net investments plus all recourse debt outstanding of PSPIB at the time of commitment to issuance. During the year ended March 31, 2018, a combined limit of \$12 billion for the Canadian and US short-term promissory note component replaced the segregated limits of \$3 billion for issuances in Canada and US \$5 billion for issuances in the United States for the year ended March 31, 2017.

PSPIB's capital market debt financing was in compliance with the limits authorized by PSPIB's Board of Directors during the years ended March 31, 2018, and March 31, 2017.



The following outlines the terms as well as the fair value of the notes issued under the capital market debt program allocated to the pension plan as at March 31 (\$ millions):

	201	8	2017		
	Capital amounts payable at maturity	Fair value	Capital amounts payable at maturity	Fair value	
Short-term Canadian dollar promissory notes, bearing interest between 1.16% and 1.85% and maturing within 26 and 364 days of issuance (between 0.57% and 0.78%, maturing within 26 and 273 days as at March 31, 2017)	\$688	\$685	\$979	\$977	
Short-term US dollar promissory notes, bearing interest between 1.39% and 2.17% and maturing within 28 and 365 days of issuance (between 0.68% and 1.16%, maturing within 30 and 266 days as at March 31, 2017)	3,911	3,902	4,118	4,113	
Medium-term notes Series 5, bearing interest of 3.03% per annum and maturing on October 22, 2020	726	742	363	383	
Medium-term notes Series 7, bearing interest of 3.29% per annum and maturing on April 4, 2024	715	744	715	770	
Medium-term notes Series 8, bearing interest of 1.34% per annum and maturing on August 18, 2021	907	881	907	897	
Medium-term notes Series 9, bearing interest of 2.09% per annum and maturing on November 22, 2023	700	686	704	706	
Medium-term notes Series 10, bearing interest of 1.73% per annum and maturing on June 21, 2022	1,241	1,209	0	0	
Total	\$8,888	\$8,849	\$7,786	\$7,846	

Unrealized gains in connection with borrowings amounted to \$137 million for the year ended March 31, 2018 (unrealized losses of \$302 million for the year ended March 31, 2017).



Interest expense, for the years ended March 31, was as follows (\$ millions):

	2018	2017
Short-term promissory notes	\$56	\$36
Medium-term notes	84	61
Total	\$140	\$97

(C) Reconciliation of liabilities arising from financing activities

The following provides a reconciliation of liabilities arising from financing activities, including both changes arising from cash and non-cash changes for the year ended March 31, 2018 (\$ millions):

				Non-cash changes		
	Opening balance	Proceeds from borrowings	Repayment of borrowings	Foreign exchange gains	Fair value ¹ gains	Closing balance
Capital market debt financing	\$7,846	\$19,807	\$(18,664)	\$(27)	\$(113)	\$8,849
Credit facilities	0	25	(25)	0	0	0
Borrowings	\$7,846	\$19,832	\$(18,689)	\$(27)	\$(113)	\$8,849

^{1.} Includes interest on short-term promissory notes, which added to cost approximates their fair value.

The following provides a reconciliation of liabilities arising from financing activities, including both changes arising from cash and non-cash changes for the year ended March 31, 2017 (\$ millions):

				Non-cash changes		
	Opening balance	Proceeds from borrowings	Repayment of borrowings	Foreign exchange losses	Fair value ¹ gains	Closing balance
Capital market debt financing	\$6,421	\$19,528	\$(18,405)	\$333	\$(31)	\$7,846
Borrowings	\$6,421	\$19,528	\$(18,405)	\$333	\$(31)	\$7,846

^{1.} Includes interest on short-term promissory notes, which added to cost approximates their fair value.



12. Related party transactions

(A) Certain investees

Transactions between PSPIB and its unconsolidated subsidiaries, jointly controlled investees and associates or subsidiaries of such entities are related party transactions. PSPIB enters into investment transactions with such related parties in the normal course of its business, more specifically, as part of private markets and certain fixed income investments described under Note 6(A) as well as guarantees, indemnities and commitments described under Notes 24 and 25, respectively. Since balances in connection with all investment transactions are measured at FVTPL, those transactions undertaken with related parties have the same impact on net assets available for benefits as those with unrelated parties.

Transactions between PSPIB and its consolidated subsidiaries as well as related balances are eliminated upon consolidation and, therefore, are not disclosed in this note.

(B) Government-related entities

Since PSPIB is a Crown corporation, it is considered to be a government-related entity. Other entities that are controlled, jointly controlled or significantly influenced by the government are also considered government-related entities.

PSPIB may enter into investment transactions with government-related entities in the normal course of its business, more specifically, as part of private markets and certain fixed income investments described under Note 6(A). Such investment transactions are carried out on terms that are equivalent to those that may prevail in transactions with unrelated parties and are subject to the same internal processes. In this respect, transactions with such related parties have the same impact on the net assets available for benefits as those with unrelated parties. Consequently, management is availing itself of the exemption under IAS 24 Related Parties from making specific disclosures on transactions and balances with such government-related entities.

13. Capital management

PSPIB manages the pension plan's investments. PSPIB's investment objectives are:

▶ To invest fund transfers in the best interests of the beneficiaries and contributors under the PSSA. The funds received are invested with a view of achieving a maximum rate of return, without undue risk of loss, having regard to the funding, policies and requirements of the pension plan under the PSSA and the ability of the pension plan to meet its financial obligations. The funds are also invested in accordance with PSPIB's Investment Risk Management policy which is outlined in Note 8.



▶ To maintain an appropriate credit rating to achieve access to the capital markets at the lowest cost of capital. Through PSP Capital Inc. and its leverage policies, PSPIB has the ability to raise capital by issuing short-term promissory notes and medium-term notes. Note 11(B) provides information on the capital market debt financing and Note 8(C) provides information on PSPIB's liquidity.

The pension plan's capital consists of the actuarial funding surplus or deficit determined regularly by the actuarial funding valuation prepared by the OCA. The purpose of this actuarial valuation is to determine the financial position of the pension plan by testing its ability to meet obligations to current plan members and their survivors. Using various assumptions, the OCA projects the future pension benefits to estimate the current value of the pension obligations on a funding basis, which is compared with the sum of: the investment assets held by PSPIB, including their projected earnings; and the discounted value of future plan member and government contributions, including future earnings on contributions. The result of this comparison is either an actuarial surplus or an actuarial deficit.

It is government policy that the obligations pertaining to service before April 1, 2000, are unfunded and are paid as they become due. For the obligations pertaining to service since April 1, 2000, the objective of managing the capital position of the pension plan is to ensure that the investments held by PSPIB are sufficient to meet the related future pension obligations.

14. Pension obligations

The OCA performs an actuarial valuation for accounting purposes as at March 31 of each fiscal year to measure and report the pension obligations, and to attribute the costs of the benefits to the period using the projected benefit method prorated on service. The actuarial valuation is based on the most recent triennial actuarial valuation for funding purposes in regards to the majority of the demographic assumptions. The other assumptions underlying the valuation are based on management's best estimates of expected long-term experience and short-term forecasts. The assumptions include estimates of discount rates, future inflation, returns on investments, general wage increases, workforce composition, retirement rates and mortality rates.

The discount rates used to measure the present value of the accrued pension benefits are as follows:

- for funded pension benefits, the streamed expected rates of return on invested funds; and
- for unfunded pension benefits, the government's cost of borrowing derived from the yields on the actual zero-coupon yield curve for Government of Canada bonds which reflect the timing of the expected future cash flows.



The principal actuarial assumptions used in measuring the pension obligations were as follows as at March 31:

	2018	2017 Restated ³
	(%)	(%)
Discount rates		
Funded pension benefits ¹	5.8	5.7
Unfunded pension benefits ²	2.2	2.23
Long-term rate of inflation	2.0	2.0
Long-term general wage increase	2.6	2.6

- 1. For funded pension benefits, the streamed discount rates used to measure the pension obligations are equivalent to the flat discount rate presented in the table. The ultimate discount rate is expected to reach 6.0% by 2028 (6.0% by 2028 in 2017).
- 2. For unfunded pension benefits, the discount rate disclosed in the table reflects the equivalent flat discount rate.
- 3. The discount rate used for unfunded pension benefits in 2017 has been restated to 2.2% (3.7% as previously reported). See Note 3 for further details regarding the change in accounting policy.

For the year ended March 31, 2018, the pension plan recorded net gains of \$0.9 billion (net gains of \$4.2 billion in 2017, restated) related to gains due to changes in actuarial assumptions of \$1.9 billion (gains of \$2.9 billion in 2017, restated) and experience losses of \$1.0 billion (experience gains of \$1.3 billion in 2017).

15. Deficit to be financed by the Government of Canada

The financial statement deficit does not impact the benefit payments to plan members because the government has a statutory obligation to pay the pension benefits it sponsors. Pursuant to pension legislation, the transactions for funded and unfunded pension benefits are tracked in the pension accounts in the accounts of Canada.

(A) Funded pension benefits

The pension plan is financed from employee and employer contributions, as well as from investment earnings. Funded pension benefits relate to post-March 2000 service that falls within the *Income Tax Act* limits, as an amount equal to contributions less benefit payments and other charges is invested by PSPIB. Funded pension benefits also include pre-2000 service purchased since April 1, 2000.

(B) Unfunded pension benefits

Unfunded pension benefits related to pre-April 2000 service are tracked in the pension plan superannuation account since no separate invested funds are maintained for this account (see Note 22). Employee and employer contributions for unfunded pension benefits are part of the CRF.



16. Investment income

The investment income of the pension plan is presented for each major class of financial assets and liabilities and is comprised of two categories: interest and dividends, and net unrealized and realized gains (losses). This presentation reflects the substance of the investment income generated by the underlying investments, whether directly held by PSPIB or by its investment entity subsidiaries.

The investment income of the pension plan is comprised of the following for the years ended March 31 (\$ millions):

		2018			2017	
	Interest and dividends	Change in fair value ¹	Total investment income	Interest and dividends	Change in fair value ¹	Total investment income
Public markets	\$678	\$3,336 ²	\$4,014	\$581	\$3,609	\$4,190
Private markets						
Real estate	444	1,564 ²	2,008	466	9872	1,453
Private equity	173	866 ²	1,039	145	(371)	(226)
Infrastructure	361	1,361 ²	1,722	296	557	853
Natural resources	151	186²	337	104	3072	411
Fixed income	1,176	(82) ²	1,094	899	619 ²	1,518
Alternative investments	5	162	167	4	629	633
Total before giving effect to investment related assets and liabilities	\$2,988 -	\$7,393	\$10,381	\$2,495	\$6,337	\$8,832
Investment-related assets and liabilities	\$6	\$(53)	\$(47)	\$3	\$2,846	\$2,849
Capital market debt financing	\$0	\$227	\$227	\$0	\$(97)	\$(97)
Investment income	\$2,994	\$7,567	\$10,561	\$2,498	\$9,086	\$11,584

^{1.} Change in fair value includes realized and unrealized gains (losses) as described in Note 2(J).



As described in Note 20, investment-related expenses of \$96 million were incurred by PSPIB's investment entity subsidiaries
for the year ended March 31, 2018 (\$40 million for the year ended March 31, 2017). They are presented as part of
investment-related expenses in accordance with Section 4600, while they are presented as part of investment income in
PSPIB's financial statements prepared under IFRS.

17. Contributions

The contributions related to funded benefits for the years ended March 31 are as follows (\$ millions):

	2018	2017
From plan members		
Current service contributions	\$2,214	\$2,158
Past service contributions	100	25
Total plan member contributions	\$2,314	\$2,183
From the employers		
Current service contributions	\$2,232	\$2,319
Past service contributions	43	11
Total employer contributions	\$2,275	\$2,330
Total plan member and employer contributions	\$4,589	\$4,513

18. Actuarial adjustment

The PSSA requires that any actuarial deficit be dealt with by transferring equal instalments to the pension fund over a period of up to 15 years, commencing in the year in which the actuarial report is tabled in Parliament.

An annual actuarial adjustment payment of \$340 million was made in the fiscal year ended March 31, 2018 (\$340 million in 2017) based on the actuarial valuation of the pension plan that was tabled in Parliament on January 25, 2016. There will be no requirement for actuarial adjustment payments in the fiscal year ended March 31, 2019, based on the new triennial actuarial valuation that was tabled in Parliament on November 2, 2018.



19. Benefit payments and refunds and transfers

(A) Benefit payments

The value of benefit payments for funded benefits, for the years ended March 31, is as follows (\$ millions):

	2018	2017
Retirement benefit payments	\$1,820	\$1,609
Disability benefit pension payments	182	171
Death benefit payments ¹	15	12
Total benefit payments	\$2,017	\$1,792

^{1.} Consist of minimum benefit payments and return of contribution payments at death.

(B) Refunds and transfers

The value of refunds and transfers for funded benefits, for the years ended March 31, is as follows (\$ millions):

	2018	2017
Payments with respect to division of pension benefits	\$37	\$39
Returns of contributions and transfer value payments	233	266
Transfers to other pension plans	37	36
Total refunds and transfers	\$307	\$341



20. Investment-related expenses

Investment-related expenses allocated to the pension plan are comprised of the following for the years ended March 31 (\$ millions):

	2018	2017
Interest expense	\$155	\$109
Transaction costs	101	97
External investment management fees ¹	29	24
Other (net) ²	134	71
Total	\$419	\$301

^{1.} Consists of amounts incurred for investments in public markets that are paid directly by PSPIB. Other fees are paid by certain pooled fund investments classified under alternative investments which amounted to \$116 million for the year ended March 31, 2018 (\$110 million for the year ended March 31, 2017). Such fees are embedded in the fair value of the funds. Similarly, management fees related to investments in private markets and private debt securities are not paid directly by PSPIB. Such fees, which generally vary between 0.1% and 2.5% of the total invested and/or committed amount, totalled \$226 million for the year ended March 31, 2018 (\$215 million for the year ended March 31, 2017). Such fees are embedded in the fair value of investments.

21. Administrative expenses

The legislation provides for administrative expenses to be charged to the pension plan. The Treasury Board approves the administrative expenses chargeable to the plan.

PSPC, as the day-to-day administrator, recovers from the pension plan administrative expenses for the activities directly attributable to its administration. These costs include salaries and benefits, systems maintenance and development, accommodation, and other operating costs of administering the pension plan within the department.

The Secretariat, as the program manager of the pension plan, provides policy interpretation support, information to plan members, financing and funding services and support to the Pension Advisory Committee, and charges its administrative costs to the pension plan.

Health Canada is reimbursed for the costs related to medical examinations required for members that elect to purchase prior service and for members who retire on medical grounds under the pension plan. These costs are included in the Secretariat's operations and maintenance costs charged to the pension plan.

The OCA provides actuarial valuation services. The costs related to these services are charged to the pension plan.



Investment-related expenses of \$96 million were incurred by PSPIB's investment entity subsidiaries for the year ended March 31, 2018 (\$40 million for the year ended March 31, 2017). They are presented as part of investment-related expenses in accordance with Section 4600, while they are presented as part of investment income in PSPIB's financial statements prepared under IFRS.

PSPIB charges plan-related administrative expenses such as salaries and employee benefits, operations and maintenance, professional and consulting fees, and other operating fees to the pension plan. The allocation methodology of the costs of operation of PSPIB is outlined in Note 10.

Administrative expenses, for the years ended March 31, consist of the following (\$ millions):

	2018	2017
PSPC		
Salaries and employee benefits	\$63	\$55
Professional and consulting fees	14	23
Operations and maintenance	10	7
Other	7	6
Total	\$94	\$91
The Secretariat		
Salaries and employee benefits	\$4	\$4
Operations and maintenance	2	1
Total	\$6	\$5
OCA		
Actuarial fees	\$1	\$1
Total for government departments (included in the service cost)	\$101	\$97
PSPIB		
Salaries and employee benefits	\$190	\$152
Operations and maintenance	65	56
Professional and consulting fees	52	45
Other	30	26
Total	\$337	\$279
Total administrative expenses ¹	\$438	\$376

^{1.} Administrative expenses related to the funded service for 2018 totalled \$383 million (\$321 million in 2017).



22. Superannuation account

A separate superannuation account has been established in the accounts of Canada in accordance with the PSSA and is not consolidated in the pension plan financial statements. In order for the government to track transactions made through the CRF, the superannuation account records contributions, benefit payments, interest and transfers that pertain to service before April 1, 2000. The superannuation account does not contain separate invested funds; rather, it is credited with notional interest as though net cash flows were invested quarterly in 20-year Government of Canada bonds issued at prescribed rates and held to maturity.

The following summarizes the financial position of the superannuation account and contributions receivable for service before April 1, 2000, as at March 31 (\$ millions):

	2018	2017 Restated (Note 3)
Balance of account		
Superannuation account	\$92,536	\$94,209
Plan member contribution receivable for past service	17	41
Employers contributions receivable for past service	16	33
Subtotal	\$92,569	\$94,283
Pension obligations ¹	\$114,603	\$117,330
Shortfall of the balance of the account over the pension obligations	\$(22,034)	\$(23,047)

Pension obligations pertaining to the superannuation account are consolidated in the pension plan's financial statements and have been restated to \$117,330 million as at March 31, 2017 (\$96,868 million as previously reported), see Note 3 for further details regarding the change in accounting policy. The actuarial assumptions used to value the pension obligations of the Superannuation Account are included in Note 14.

The PSSA requires that any actuarial shortfall resulting from a lower balance in the superannuation account than the actuarial liability be addressed by increasing the superannuation account in equal instalments over a period of up to 15 years. It also allows the surplus to be reduced by decreasing the superannuation account over a period of up to 15 years; however, if the balance of the superannuation account exceeds 110% of the amount required to meet the cost of the benefits payable, the surplus amount must be reduced by decreasing the superannuation account annually over a period of up to 15 years. For the year ended March 31, 2018, no adjustment was made to the superannuation account (no adjustment in 2017) to cover actuarial deficiencies.



The following summarizes the transactions in the superannuation account for unfunded pension benefits for the years ended March 31 (\$ millions):

	2018	2017
Opening balance	\$94,209	\$95,566
Increase		
Contributions by employers	\$7	\$9
Contributions by plan members	8	11
Interest income	3,830	4,128
Total increase	\$3,845	\$4,148
Decrease		
Benefits paid	\$5,429	\$5,399
Refunds and transfers	34	51
Administrative expenses	55	55
Total decrease	\$5,518	\$5,505
Closing balance	\$92,536	\$94,209

23. Retirement compensation arrangements

Retirement compensation arrangements (RCAs) have been established under the authority of the *Special Retirement Arrangements Act* to provide supplementary pension benefits to certain plan members. Since these arrangements are covered by separate legislation, the balance of the RCAs and the related pension obligations are not consolidated in the financial statements of the pension plan.

RCA No. 1 provides for benefits in excess of those permitted under the *Income Tax Act* restrictions for registered pension plans.

RCA No. 2 provides pension benefits to federal public service employees who were declared surplus as a result of a 3-year Early Retirement Incentive program that ended on March 31, 1998. The cost of RCA No. 2 is assumed entirely by the government.

Pursuant to the legislation, transactions pertaining to both RCA No. 1 and RCA No. 2, such as contributions, benefits, and interest credits, are recorded in the RCA accounts, which are maintained in the accounts of Canada. The legislation also requires that the RCA accounts be credited with interest quarterly at the same rates as those credited to the Superannuation Account.



The RCAs are registered with the Canada Revenue Agency (CRA), and a transfer is made annually between the RCA accounts and the CRA either to remit a 50% refundable tax in respect of the net contributions and interest credits or to be credited a reimbursement based on the net benefit payments.

The following summarizes the financial position of RCA No. 1 and RCA No. 2 as at March 31 (\$ millions):

	2018	2017 Restated (Note 3)
Balance of the accounts		
RCA accounts	\$1,930	\$1,911
Refundable tax receivable	1,938	1,915
Plan members contributions receivable for past service	1	7
Employers contributions receivable for past service	0	32
Subtotal	\$3,869	\$3,865
Pension obligations ¹	\$3,597	\$3,587
Excess of the balance of the accounts over the pension obligations	\$272	\$278

^{1.} The pension obligations pertaining to the RCA accounts as at March 31, 2017 have been restated to \$3,587 million (\$3,766 million as previously reported). See Note 3 for further details regarding the change in accounting policy.

The actuarial assumptions used to value the pension obligations pertaining to the RCA accounts are consistent in all respects with those used for the superannuation account.



The following summarizes the transactions in RCA No. 1 and RCA No. 2 for the years ended March 31 (\$ millions):

	2018	2017
Opening balance	\$3,865	\$3,838
Increase		
Contributions by employers	\$84	\$58
Contributions by plan members	12	9
Interest income	78	86
Net change in prior service contributions receivable	(38)	0
Increase in refundable tax receivable	23	86
Total increase	\$159	\$239
Decrease		
Benefits paid	\$130	\$125
Refunds and transfers	2	1
Refundable tax remittance	23	86
Total decrease	\$155	\$212
Closing balance	\$3,869	\$3,865

Actuarial shortfalls found between the balance in the RCA accounts and the actuarial liabilities are credited to the RCA accounts in equal instalments over a period of up to 15 years. Adjustments to fund deficiencies are based on triennial actuarial valuations. For the year ended March 31, 2018, no adjustment was made to RCA No. 1 (no adjustment in 2017), and no adjustment was made to RCA No. 2 (no adjustment in 2017) to cover actuarial deficiencies.

24. Guarantees and indemnities

PSPIB provides indemnification to its directors, its officers, its vice-presidents and to certain PSPIB representatives who are asked to serve on boards of directors (or like bodies) or investment advisory boards (or like bodies) of entities in which PSPIB or its investment entity subsidiaries have made an investment or have a financial interest. As a result, but subject to the *Public Service Pension Investment Board Act*, PSPIB may be required to indemnify these representatives for costs incurred, such as claims, actions or litigation in connection with the exercise of their duties, unless the liability of such a representative relates to a failure to act honestly and in good faith. To date, PSPIB has not received any claims or made any payment for such indemnities.



In certain cases, PSPIB also provides indemnification to third parties in the normal course of business. As a result, PSPIB may be required to indemnify such third parties in connection with the performance of their contractual obligations. To date, PSPIB has not received any claims nor made any payments for such indemnities.

PSPIB unconditionally and irrevocably guarantees all credit facilities, as well as short-term promissory notes and medium-term notes issued by PSP Capital Inc., as described in Note 11.

In certain investment transactions, PSPIB and its investment entity subsidiaries provided guarantees, indemnifications or issued letters of credit to third parties, the most significant of which are as follows:

- As at March 31, 2018, and March 31, 2017, PSPIB and its investment entity subsidiaries agreed to guarantee and, in some cases, provide indemnification for the performance of certain investees under contractual agreements. The majority of these arrangements are borrowing arrangements. In the event a default occurs under such agreements, which is of limited recourse in certain cases, PSPIB or its investment entity subsidiaries could assume obligations of up to \$2,550 million as at March 31, 2018 (\$2,077 million as at March 31, 2017), of which \$1,851 million has been allocated to the pension plan (\$1,508 million as at March 31, 2017) plus applicable interest and other related costs. The arrangements mature between November 2018 and November 2029 as of March 31, 2018 (between May 2017 and September 2028 as of March 31, 2017).
- Additionally, PSPIB and its investment entity subsidiaries issued letters of credit totalling \$53 million as at March 31, 2018 (\$35 million as at March 31, 2017), of which \$38 million has been allocated to the pension plan (\$25 million as at March 31, 2017) in relation to investment transactions.



25. Commitments

PSPIB and its investment entity subsidiaries have committed to enter into investment transactions, which will be funded over the next several years in accordance with agreed terms and conditions. The portion of PSPIB's commitments that would be assumed by the pension plan is as follows as at March 31 (\$ millions):

	2018	2017
Foreign equity	\$3	\$0
Real estate	1,664	2,052
Private equity	8,231	6,580
Infrastructure	2,815	2,723
Natural resources	332	548
Private debt securities	2,727	2,258
Alternative investments	1,620	901
Total	\$17,392	\$15,062

Funding in connection with the above commitments can be called upon at various dates extending until 2035 as at March 31, 2018 (until 2035 as at March 31, 2017).



Glossary of terms

accrued pension benefits

Benefits earned for pensionable service to date by a member of the public service pension plan.

actuarial assumptions

Economic and demographic assumptions, such as future expected rates of return, inflation, salary levels, retirement ages and mortality rates, that are used by actuaries when carrying out an actuarial valuation or calculation.

actuarial valuation

An actuarial analysis that provides information on the financial condition of a pension plan.

administrative expenses

Expenses by government departments for the administration of the public service pension plan and for operating expenses incurred by the Public Sector Pension Investment Board to invest pension assets. Investment management fees are either paid directly by the Public Sector Pension Investment Board or offset against distributions received from the investments.

annual allowance

A benefit available to public service pension plan members who have more than 2 years of pensionable service, who retire before age 60 (Group 1) or before age 65 (Group 2), and who are not entitled to an immediate annuity. This benefit is a reduced pension that takes into account the early payment of a retirement pension. The earliest it becomes payable is at age 50 (Group 1) or at age 55 (Group 2).

benchmark rate of return

A standard against which rates of return can be measured, such as stock and bond market indexes developed by stock exchanges and investment managers.

benefits earned

Benefits credited to public service pension plan members for service provided during the fiscal year.

Canada Pension Plan

A mandatory earnings-related pension plan, implemented on January 1, 1966, to provide basic retirement income to Canadians who work in all the provinces and territories except the province of Quebec. Quebec operates the Québec Pension Plan, which is similar to the Canada Pension Plan, for persons who work in that province.



child

A dependant who may be entitled to a children's allowance under the public service pension plan in the event of a plan member's death. To be eligible for an allowance, a child must be under 18 years of age. Children between 18 and 25 may receive allowances if they are enrolled in school or another educational institution full-time and have attended continuously since the age of 18 or the date of the member's death, whichever occurs later.

Consumer Price Index

A measure of price changes published by Statistics Canada on a monthly basis. The Consumer Price Index measures the retail prices of a "shopping basket" of about 300 goods and services, including food, housing, transportation, clothing and recreation. The index is weighted, meaning that it gives greater importance to price changes for some products than others (for example, more to housing than to entertainment), in an effort to reflect typical spending patterns. Increases in the Consumer Price Index are also referred to as increases in the cost of living.

cost ratio

The Public Sector Pension Investment Board's operating expenses plus asset management expenses as a percentage of average net investment assets.

deferred annuity

A benefit that is available to most public service plan members who leave the public service before age 60 (Group 1) or before age 65 (Group 2) and who have at least 2 years of pensionable service. This benefit is calculated using the same formula as an immediate annuity, but payment is deferred until age 60 (Group 1) or until age 65 (Group 2). A plan member who is entitled to a deferred annuity may request an annual allowance at any time after he or she reaches age 50 (Group 1) or age 55 (Group 2).

defined benefit pension plan

A type of pension plan that promises a certain level of pension, which is usually based on the plan member's salary and years of service. The public service pension plan is a defined benefit pension plan.

disability

A physical or mental impairment that prevents an individual from engaging in any employment for which the individual is reasonably suited by virtue of his or her education, training or experience and that can reasonably be expected to last for the rest of the individual's life.

Group 1

Members of the public service pension plan who were participating in the plan on or before December 31, 2012.



Group 2

Members of the public service pension plan who began participating in the plan on or after January 1, 2013.

immediate annuity

A benefit payable to public service plan members who retire at any time after reaching age 60 (Group 1) or age 65 (Group 2) with at least 2 years of pensionable service, or after reaching age 55 (Group 1) or age 60 (Group 2) with at least 30 years of pensionable service. An immediate annuity is also payable at any age to plan members who have at least 2 years of pensionable service and are retiring because of disability.

indexation

The automatic adjustment of pensions in pay or accrued pension benefits (deferred annuities) in accordance with changes in the Consumer Price Index. Under the public service pension plan, pensions are indexed in January of each year in order to maintain their purchasing power.

minimum benefit

A benefit that is equal to the payment of a public service pension plan member's basic pension for a period of 5 years. If the plan member or his or her eligible surviving spouse or children have not received, in total, pension payments equal to 5 times the amount of the plan member's annual basic pension, the balance in the form of a lump-sum amount becomes payable to his or her designated beneficiary for the supplementary death benefit or, if there is no beneficiary, to his or her estate.

net assets available for benefits

Assets that include receivables and other assets, and the fair value of the assets held by the Public Sector Pension Investment Board on behalf of the pension plan, net of Public Sector Pension Investment Board liabilities.

non-vested member

A member who does not have at least 2 years of pensionable service to his or her credit.

past service election

A legally binding agreement to purchase a period of past service to increase a member's pensionable service under the federal public service pension plan. Past service can include eligible periods of employment, either in the public service or with another employer. Members can elect to purchase any eligible past service before they terminate employment.



pension benefits

Benefits based on a public service pension plan member's number of years of pensionable service, to a maximum of 35 years. The benefits are determined by a formula set out in the *Public Service Superannuation Act*; they are not based on the financial status of the pension plan. The basic benefit formula is 2% per year of pensionable service times the average of the 5 consecutive years of highest paid service. Using a legislated formula, benefits are coordinated with the Canada Pension Plan and the Québec Pension Plan and are fully indexed to increases in the Consumer Price Index.

pension contributions

Sums credited or paid by the employer (Government of Canada, some Crown corporations and the territorial governments) and public service pension plan members to finance future pension benefits. Each year, the employer contributes amounts sufficient to fund the future benefits earned by employees in respect of that year, as determined by the President of the Treasury Board.

pension transfer agreement

An agreement negotiated between the Government of Canada and an eligible employer to provide portability of accrued pension credits from one pension plan to another.

pensionable service

Periods of service to the credit of a public service pension plan member. This service includes any complete or partial periods of purchased service (for example, service buyback or elective service).

Public Sector Pension Investment Board

A Crown corporation established on April 1, 2000, under the *Public Sector Pension Investment Board Act*. The corporation's mandate is to invest in capital markets the amounts transferred to it since April 1, 2000, by the Government of Canada with respect to the public service pension plan. The Public Sector Pension Investment Board operates under the commercial name of PSP Investments. Both names are used interchangeably throughout this report.

Public Service Pension Fund Account

An account established to record pension transactions relating to service provided by members since April 1, 2000.

public service pension plan

A pension plan implemented on January 1, 1954, that provides benefits to public service employees payable on retirement, termination of service, or disability and to their survivors payable after death. This plan is defined by the *Public Service Superannuation Act*, the *Pension Benefits Division Act* and the benefits relating to the public service that are provided under the *Special Retirement Arrangements Act*.



Public Service Superannuation Account

An account established by the *Public Service Superannuation Act* to record pension transactions relating to service provided by members before April 1, 2000.

Public Service Superannuation Act

An act to provide pension benefits to eligible federal public servants and their dependants.

Ouébec Pension Plan

A pension plan similar to the Canada Pension Plan that covers individuals working in the province of Quebec. It is administered by the Régie des rentes du Québec.

return of contributions

A benefit that is available to contributors who leave the public service with less than 2 years of pensionable service under the public service pension plan. It includes employee contributions plus interest, if applicable.

supplementary death benefit

A decreasing life insurance benefit equal to twice the annual salary of a public service plan member. Coverage decreases by 10% per year starting at age 66. A minimum amount of coverage (\$10,000) is provided at no cost to the plan member at age 65 for plan members entitled to an immediate annuity or an annual allowance payable within 30 days after termination of employment in the public service. This minimum coverage is maintained for life.

survivor

The person who, at the time of plan member's death, was married to the plan member before his or her retirement, or who was cohabiting with the plan member in a relationship of a conjugal nature prior to retirement and for at least one year prior to the date of death.

survivor benefit

A pension benefit paid to the survivor of a plan member who has died.

transfer value

A benefit option available to public service pension plan members who leave the public service before age 50 (Group 1) or before age 55 (Group 2) with at least 2 years of pensionable service. This benefit is the actuarial value of the plan member's accrued pension benefits. It must be transferred to another registered pension plan, to a retirement savings vehicle, or to a financial institution to purchase an annuity.



vested member

An employee who has at least 2 years of pensionable service, in other words, who has been a member of the public service pension plan for an uninterrupted period of 2 years. Once vested, the member is entitled to receive the value of the employee's own contributions plus those of the employer, along with the investment returns earned on both contributions.

year's maximum pensionable earnings

The maximum earnings on which contributions are made to the Canada Pension Plan and the Québec Pension Plan during the year. The year's maximum pensionable earnings were \$55,300 in 2017 (\$54,900 in 2016).



Endnotes

i.	Public Service Superannuation Act, http://laws-lois.justice.gc.ca/eng/acts/p-36/
ii.	Public Service Superannuation Act, http://laws-lois.justice.gc.ca/eng/acts/p-36/
iii.	Canada.ca/pension-benefits, https://www.canada.ca/en/treasury-board-secretariat/topics/pension-benefits.html
iv.	Income Tax Act, https://laws-lois.justice.gc.ca/eng/acts/I-3.3/
v.	PSP Investments, http://www.investpsp.ca/en/index.html
vi.	Public Sector Pension Investment Board Act, https://laws-lois.justice.gc.ca/eng/acts/P-31.7/index.html
vii.	Office of the Chief Actuary, http://www.osfi-bsif.gc.ca/Eng/oca-bac/Pages/default.aspx
viii.	Public Service Superannuation Act, http://laws-lois.justice.gc.ca/eng/acts/p-36/
ix.	Public Service Superannuation Act, http://laws-lois.justice.gc.ca/eng/acts/p-36/
х.	Public Service Superannuation Regulations, http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c1358/
xi.	Canada.ca/pension-benefits, https://www.canada.ca/en/treasury-board-secretariat/topics/pension-benefits.html
xii.	Public Pensions Reporting Act, https://laws-lois.justice.gc.ca/eng/acts/P-31.4/
xiii.	Public Service Superannuation Act, http://laws-lois.justice.gc.ca/eng/acts/p-36/
xiv.	PSP Investments, http://www.investpsp.ca/en/index.html
XV.	Special Retirement Arrangements Act, https://laws-lois.justice.gc.ca/eng/acts/S-15.2/index.html
xvi.	Income Tax Act, https://laws-lois.justice.gc.ca/eng/acts/I-3.3/
xvii.	Canada.ca/pension-benefits, https://www.canada.ca/en/treasury-board-secretariat/topics/pension-benefits.html
xviii.	Public Services and Procurement Canada, Pay and Pension Services for Government Employees, http://www.tpsgc-pwgsc.gc.ca/remuneration-compensation/txt/index-eng.html
xix.	Public Service Superannuation Act, http://laws-lois.justice.gc.ca/eng/acts/p-36/
XX.	PSP Investments, http://www.investpsp.ca/en/index.html
xxi.	Office of the Chief Actuary, http://www.osfi-bsif.gc.ca/Eng/oca-bac/Pages/default.aspx
xxii.	Retirement Compensation Arrangements Regulations, No. 1, https://laws-
	lois.justice.gc.ca/eng/regulations/SOR-94-785/page-1.html
xxiii.	Retirement Compensation Arrangements Regulations, No. 2, https://laws-
	lois.justice.gc.ca/eng/regulations/SOR-95-169/index.html

