



Report on Public Sector Pension Plans as at March 31, 2018

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Overview

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Objective and scope of this report

The Government of Canada sponsors a number of defined benefit pension plans for its employees, including the public service, the Royal Canadian Mounted Police (RCMP), the Canadian Armed Forces and the Reserve Force pension plans (the 4 main public sector pension plans), as well as other retirement compensation arrangements. These plans are one of the benefits the Government of Canada offers to help recruit and retain the highly skilled workforce that is required to serve Canadians.

The President of the Treasury Board and the Treasury Board of Canada Secretariat have overarching policy responsibility for the 4 main public sector pension plans, but each plan is managed separately and has its own governance structure and reporting requirements.

This report provides an overview of these plans and complements the annual and actuarial reports of each plan. The appendix contains general information on each plan.

Data in this report is for fiscal year ended March 31, 2018. If data as of that date is not available, data from other years is presented and noted. All data presented is from publicly available documents.

Year at a glance, fiscal year ended March 31, 2018

Plan membership 853,371 members

including active contributors and retired members

Pension obligation \$306.4 billion

Total pension obligation

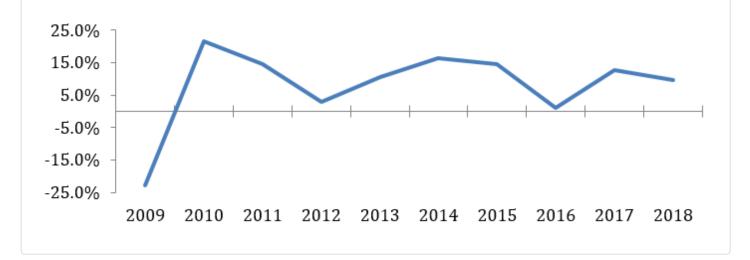
Rates of return

9.8%

Annual net rate of return in 2018

7.1%

Annualized net rate of return over the last 10 years



Investments

\$153.0 billion

Pension plan net assets invested by the Public Sector Pension Investment Board

Contributions

\$6,776 million

Employer and employee cash contributions

Expenses

\$599 million

Administrative expenses for day-to-day operations of the plans

\$11.6 billion

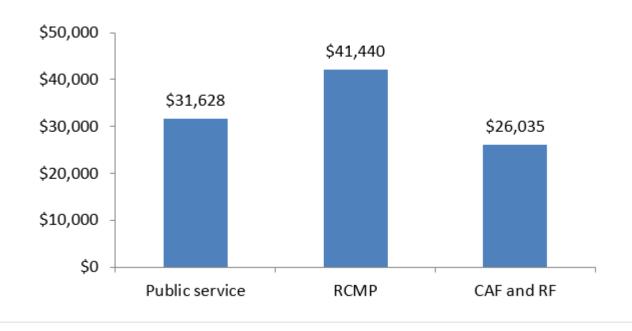
Total pension expenses incurred by the government

Average annual pension paid to retired members *

Public service: \$31,628

RCMP: \$41,440

Canadian Armed Forces (CAF) and Reserve Force (RF) **: \$26,035



- * "Retired members" includes retired plan members, survivors and deferred annuitants.
- ** Information for the Canadian Armed Forces and the Reserve Force pension plans is based on data for fiscal year ended March 31, 2017.

Roles and responsibilities

The 4 main public sector pension plans are contributory defined benefit pension plans established under legislation. 1 The plans provide retirement benefits to eligible plan members upon retirement and survivor benefits to their survivors upon the member's death.

Pursuant to legislation, the following officials are responsible for the pension plans indicated:

- President of the Treasury Board: the public service pension plan
- Minister of National Defence: the Canadian Armed Forces and the Reserve Force pension plans
- Minister of Public Safety and Emergency Preparedness: Royal Canadian Mounted Police (RCMP) pension plan

The President of the Treasury Board is responsible for the funding of all of these plans.

To support their respective ministers, the Treasury Board of Canada Secretariat, National Defence and the RCMP develop policy and legislation, provide program advice and interpretation, provide financial analysis, and

prepare financial statements and annual reports for their pension plans.

Public Services and Procurement Canada (PSPC) manages the day-to-day administration of the plans, including determining eligibility for benefits and calculating and paying benefits for the public service and RCMP pension plans and, as of July 2016, for the Canadian Armed Forces and Reserve Force pension plans.

The Office of the Chief Actuary, an independent unit of the Office of the Superintendent of Financial Institutions, performs periodic actuarial valuations for funding purposes and calculates the yearly pension obligations included in the pension plans' financial statements.

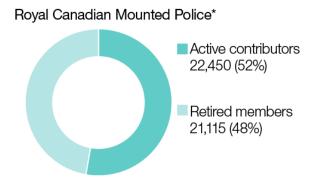
The Public Sector Pension Investment Board (PSPIB) is responsible for managing the funds transferred to it by the 4 main public sector pension plan funds and for maximizing investment returns without undue risk of loss, having regard to the funding, policies and requirements of the pension plans. The PSPIB is a Crown corporation established under the *Public Sector Pension Investment Board Act* that is accountable to Parliament through the President of the Treasury Board. The PSPIB has been investing for the public service, the RCMP and the Canadian Armed Forces pension plans since April 1, 2000, and for the Reserve Force pension plan since March 1, 2007.

Membership

Figure 1 shows the number of active contributors and retired members including survivors and deferred annuitants for each pension plan.

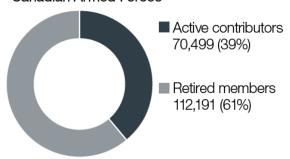
Figure 1. Individual plan membership

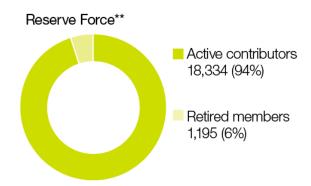
Public service* Active contributors 303,483 (50%) Retired members 304,104 (50%)



 $^{^{\}ast}$ Based on data for fiscal year ended March 31, 2018.

Canadian Armed Forces**





Source of data: Individual pension plan annual reports.

▼ Figure 1 - Text version

Plan membership for public service *

	Number	% of total
Active contributors	303,483	(50%)
Retired members	304,104	(50%)
Public service total	607,587	(100%)

* Based on data for fiscal year ended March 31, 2018.

Source of data: Individual pension plan annual reports.

Plan membership for Canadian Armed Forces **

Number	% of total

^{**} Based on data for fiscal year ended March 31, 2017.

	Number	% of total
Active contributors	70,499	(39%)
Retired members	112,191	(61%)
Public service total	182,690	(100%)

** Based on data for fiscal year ended March 31, 2017 .

Source of data: Individual pension plan annual reports.

Plan membership for Royal Canadian Mounted Police -

	Number	% of total
Active contributors	22,450	(52%)
Retired members	21,115	(48%)
Public service total	43,565	(100%)

 $^{\underline{\star}}$ Based on data for fiscal year ended March 31, 2018.

Source of data: Individual pension plan annual reports.

Plan membership for Reserve Force **

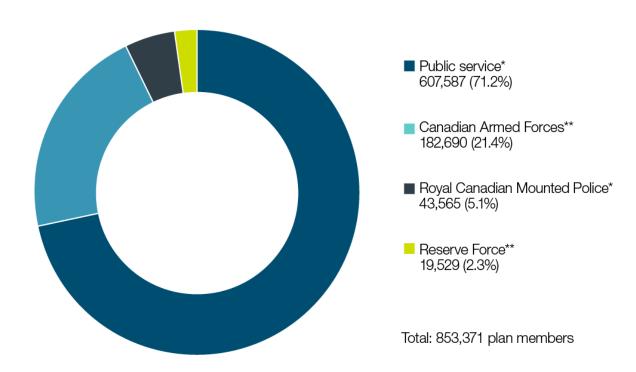
	Number	% of total
Active contributors	18,334	(94%)
Retired members	1,195	(6%)
Public service total	19,529	(100%)

 $\underline{**}$ Based on data for fiscal year ended March 31, 2017.

Source of data: Individual pension plan annual reports.

Figure 2 shows the number of active contributors and retired members, including survivors and deferred annuitants for each of the 4 main pension plans.

Figure 2. Total membership profile



^{*} Based on data for fiscal year ended March 31, 2018.

Source of data: Individual pension plan annual reports.

▼ Figure 2 - Text version

Total Membership

	Total	% of total
Public service *	607,587	(71.2%)
Canadian Armed Forces **	182,690	(21.4%)
Royal Canadian Mounted Police *	43,565	(5.1%)
Reserve Force **	19,529	(2.3%)

<u>*</u> Based on data for fiscal year ended March 31, 2018.

** Based on data for fiscal year ended March 31, 2017.

Source of data: Individual pension plan annual reports.

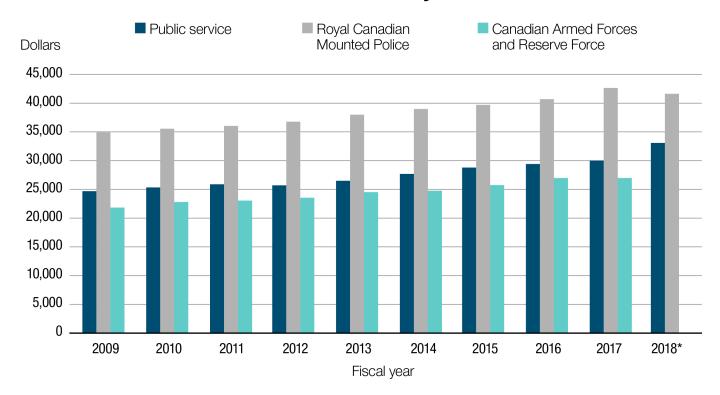
^{**} Based on data for fiscal year ended March 31, 2017.

		Total	% of total	
All pla	ans total	853,371	(100%)	
*	Deceded data for forely and add March 24, 2040			
-	Based on data for fiscal year ended March 31, 2018 .			

Benefits payable to retired members

Figure 3 shows average annual pensions paid to retired members and survivors from 2009 to 2018.

Figure 3. Average annual pension paid to retired members and survivors from 2009 to 2018 (fiscal year ended March 31)



^{*} Data for fiscal year ended March 31, 2018, for the Canadian Armed Forces and the Reserve Force pension plans was not available at the time of publishing.

Source of data: Individual pension plan annual reports.

Fiscal years	Public service (dollars)	Royal Canadian Mounted Police (dollars)	Canadian Armed Forces and Reserve Force (dollars)	
2009	24,506	34,610	21,684	
2010	25,127	35,561	22,783	
2011	25,991	36,114	22,970	
2012	27,135	36,848	23,443	
2013	27,380	37,930	24,382	
2014	28,019	38,940	24,851	
2015	28,711	39,715	25,696	
2016	29,314	40,828	26,908	
2017	30,034	42,788	26,035	
2018 *	31,628	41,440	n/a	

<u>*</u> Data for Canadian Armed Forces and Reserve Force for fiscal year ended March 31, 2018 is not available at the time of the publication of this report

Source of data: Individual pension plan annual reports

The average pension paid to retired members and survivors was as follows:

- Public service: \$31,628 (for fiscal year ended March 31, 2018)
- RCMP: \$41,440 (for fiscal year ended March 31, 2018)
- Canadian Armed Forces and Reserve Force: \$26,035 (for fiscal year ended March 31, 2017) *

Source of data: Individual pension plan annual reports

Contributions

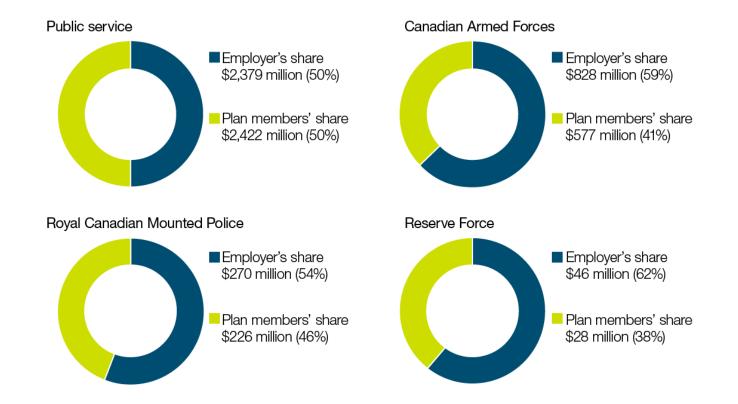
Public sector pension plan benefits are funded through compulsory contributions from the employer and plan members, as well as from investment earnings. Figure 4 shows, for each plan, the share of cash contributions by the employer and by plan members. Cash contributions include current service and past service contributions (for example, service buybacks) and do not include actuarial adjustments. $\frac{2}{}$

The public service pension plan has 2 groups of plan members:

- Group 1: members who were participating in the plan on or before December 31, 2012
- Group 2: members who began participating in the plan on or after January 1, 2013

Plan members' contributions are a percentage of their salary and are collected through payroll deductions. Members contribute at a lower rate on salary up to the yearly maximum pensionable earnings (YMPE) that apply under the Canada Pension Plan and the Québec Pension Plan. In 2018, the YMPE was \$55,900.

Figure 4. Share of cash contributions by employer and by plan members



Source of data: Public Accounts of Canada 2017–2018, volume I, section 6

	Public service (in millions)	Public service (in percentage)	Royal Canadian Mounted Police (in millions)	Royal Canadian Mounted Police (in percentage)	Canadian Armed Forces (in millions)	Canadian Armed Forces (in percentage)	Reserve Force (in millions)	Reserve Force (in percentage
Employer's share	\$2,379	50%	\$270	54%	\$828	59%	\$46	62%
Plan members' share	\$2,422	50%	\$226	46%	\$577	41%	\$28	38%
Total	\$4,801	100%	\$496	100%	\$1,405	100%	\$74	100%

The employee contribution rates are approved on calendar basis. Table 1 shows members' contribution rates as a percentage of their salary for 2018.

Table 1. Members' contribution rates for 2018 *

	Public service				
Group Group Salary 1 2	Group 2	Canadian Armed For ces	RCMP	Reserve Force <u>**</u>	
Up to the YMPE	9.6%	8.5%	9.6%	9.6%	5.2%
Above the YMPE	11.8%	10.1%	11.8%	11.8%	

- <u>*</u> These rates are pro-rated based on 9 months of contribution rates from calendar year 2017 and 3 months of contribution rates from calendar year 2018.
- ** Members of the Reserve Force contribute 5.2% on pensionable earnings up to two thirds of the defined benefit limit as determined under the *Income Tax Regulations*.

Source of data: *Public Accounts of Canada 2017–2018*, volume I, section 6

Since April 1, 2000 (March 1, 2007 for the Reserve Force pension plan), plan member and employer contributions, net of benefit payments and other charges to the plans, have been transferred to the PSPIB for investment.

Before April 1, 2000, employer and plan member contributions were not invested. Contributions, as well as benefit payments, interest, charges and transfers that pertain to service before April 1, 2000, have been tracked in the superannuation accounts in the *Public Accounts of Canada*.

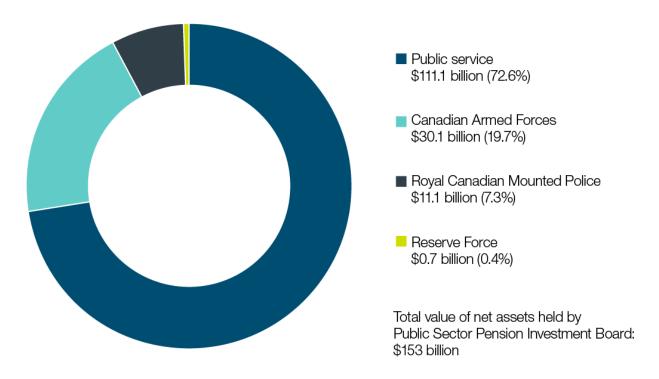
Financial overview

▼ In this section

- Investment asset mix
- Investment returns
- Administrative expenses

Figure 5 shows the value of net assets held by the PSPIB for each pension plan, as at March 31, 2018.

Figure 5. Value of net assets held by the PSPIB as at March 31, 2018



Source of data: Public Sector Pension Investment Board – 2018 Annual Report

▼ Figure 5 - Text version

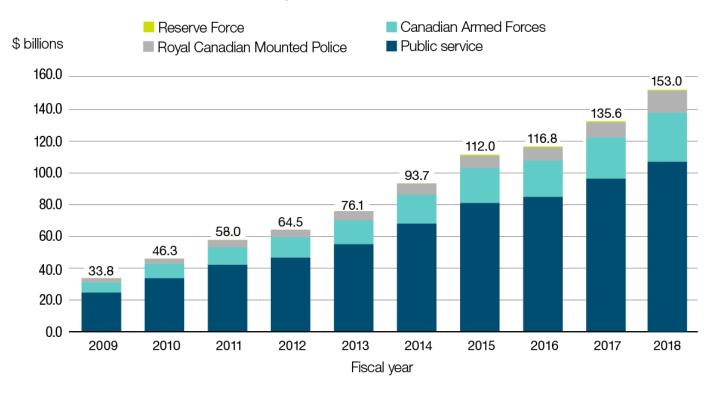
Fiscal year	Public service	Canadian Armed Forces	Royal Canadian Mounted Police	Reserve Force	Total
2018	\$111.1 billion (72.6%)	\$30.1 billion (19.7%)	\$11.1 billion (7.3%)	\$0.7 billion (0.4%)	\$153.0 billion

Source of data: Public Sector Pension Investment Board - 2018 Annual Report

Total value of net assets held by Public Sector Pension Investment Board: \$153.0 billion

Figure 6 shows the total value of net pension plan assets held by the PSPIB each year over the last 10 years.

Figure 6. Total value of net assets held by the PSPIB from 2009 to 2018 (fiscal year ended March 31)



Source of data: Public Sector Pension Investment Board annual reports for years ended March 31, 2009, to March 31, 2018.

▼ Figure 6 - Text version

Fiscal years	Public service (billions)	Canadian Armed Forces (billions)	Royal Canadian Mounted Police (billions)	Reserve Force (billions)	Total (billions)
2009	24.5	6.8	2.4	0.1	33.8
2010	33.7	9.1	3.3	0.2	46.3
2011	42.3	11.3	4.1	0.3	58.0
2012	47.1	12.4	4.6	0.4	64.5
2013	55.5	14.9	5.4	0.4	76.1
2014	68.2	18.4	6.7	0.5	93.7
2015	81.3	22.0	8.1	0.6	112.0
2016	84.7	23.0	8.5	0.6	116.8
2017	98.5	26.7	9.8	0.6	135.6

Source of data: Public Sector Pension Investment Board annual reports for fiscal years ended March 31, 2009, to March 31, 2018

Fiscal years	Public service (billions)	Canadian Armed Forces (billions)	Royal Canadian Mounted Police (billions)	Reserve Force (billions)	Total (billions)
2018	111.1	30.1	11.1	0.7	153.0

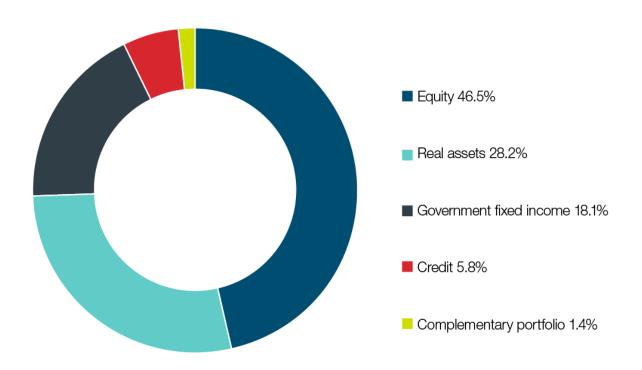
Source of data: Public Sector Pension Investment Board annual reports for fiscal years ended March 31, 2009, to March 31, 2018

Investment asset mix

As part of its investment approach, the PSPIB has developed a diverse policy portfolio designed to mitigate risks. The policy portfolio represents the long-term target asset allocation among various asset classes. The PSPIB's actual investment asset mix is based on the policy portfolio.

Figure 7 shows the PSPIB investment asset mix as at March 31, 2018.

Figure 7. PSPIB investment asset mix (as at March 31, 2018)



Source of data: Public Sector Pension Investment Board – 2018 Annual Report

▼ Figure 7 - Text version	
PSPIB investment	

	PSPIB investment
Equity	46.5%
Real assets	28.2%
Government fixed income	18.1%
Credit	5.8%
Complementary portfolio	1.4%
Source of data: Public Sector Pension Investment Board, Annual Re	pport 2018

Investment returns

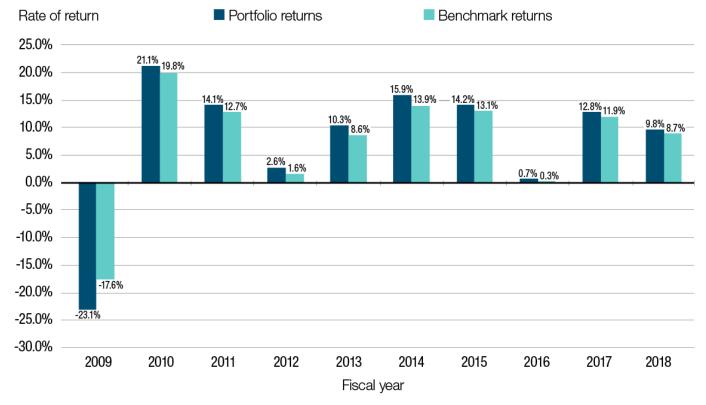
The PSPIB reported a net rate of return of 9.8% for fiscal year ended March 31, 2018. The annualized net rate of return was 7.1% over the last 10 years, which surpassed the return objective of 5.8% for the same period.

The PSPIB has generated above-benchmark returns in 9 of the past 10 years, including 2018. It has accomplished this by taking a disciplined approach to investment and ensuring an appropriate balance between risks and returns. Responsible corporate governance mechanisms are in place to allow for appropriate control of investment risk and costs.

Figure 8 shows the annual net rate of return on assets held by the PSPIB against its comparative benchmark at March 31.

Figure 8. Net rate of return on assets held by the PSPIB from 2009 to 2018

(fiscal year ended March 31)



Source of data: Public Sector Pension Investment Board – 2018 Annual Report

▼ Figure 8 - Text version

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

Fiscal years	Portfolio returns	Benchmark returns
2009	-23.1%	-17.6%
2010	21.1%	19.8%
2011	14.1%	12.7%
2012	2.6%	1.6%
2013	10.3%	8.6%
2014	15.9%	13.9%
2015	14.2%	13.1%
2016	0.7%	0.3%
2017	12.8%	11.9%
2018	9.8%	8.7%

Figure 9 shows the total pension obligations of the 4 main public sector pension plans. As at March 31, 2018 (for the public service and RCMP pension plans), and as at March 31, 2017 (for the Canadian Armed Forces and the Reserve Force pension plans), total pension obligations were \$306.4 billion.

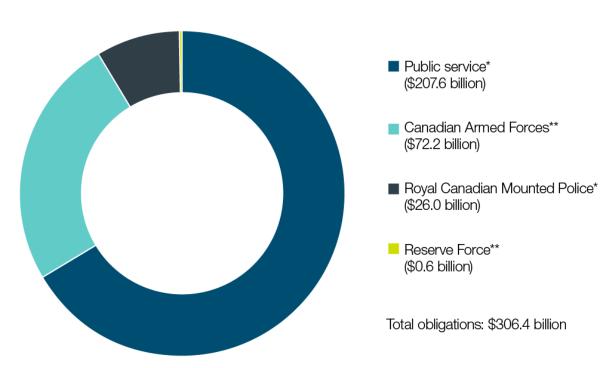


Figure 9. Pension plans' obligations

Source of data: Financial statements contained in individual pension plan annual reports

▼ Figure 9 - Text version

	Public service *	Canadian Armed Forces **	Royal Canadian Mounted Police *	Reserve Force **	Total liabilities
Obligations (in billions)	207.6	72.2	26.0	0.6	306.4

- <u>*</u> Based on data for fiscal year ended March 31, 2018.
- ** Based on data for fiscal year ended March 31, 2017.

Source of data: Financial statements contained in individual pension plan annual reports

^{*} Based on data for fiscal year ended March 31, 2018.

^{**} Based on data for fiscal year ended March 31, 2017.

Administrative expenses

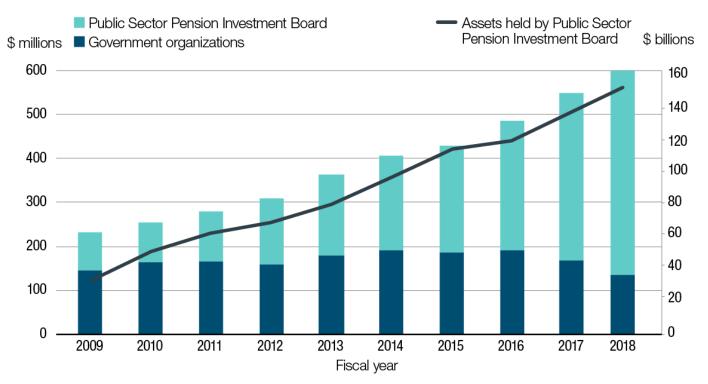
The legislation provides for the pension-related administrative expenses of the following government organizations to be charged to the public sector pension plans:

- the Treasury Board of Canada Secretariat
- National Defence
- the RCMP
- Public Services and Procurement Canada
- Health Canada
- the Office of the Chief Actuary

The administrative expenses of the PSPIB are also charged to the plans. In 2018, PSPIB increased headcount and headcount related expenses that were necessary to deliver on its legislated mandate.

Figure 10 shows the administrative expenses charged to the plans for the last 10 years as shared between government organizations and the PSPIB (left axis, in \$ millions) and the assets held by the PSPIB (right axis, in \$ billions). Figure 10 also shows the relation between administrative expenses and increases in the value of assets held by the PSPIB.

Figure 10. Administrative expenses (fiscal year ended March 31)



Source of data: Public Sector Pension Investment Board annual reports and the *Public Accounts of Canada* for years ended March 31, 2009 to March 31, 2018

▼ Figure 10 - Text version

Figure 10. Administrative expenses (fiscal year ended March 31)

Fiscal years	Government organizations (millions)	Public Sector Pension Investment Board (millions)	Total (millions)	Assets held by Public Sector Pension Investment Board (billions)
2009	146	87	233	33.8
2010	163	92	256	46.3
2011	165	114	279	58.0
2012	160	148	308	64.5
2013	179	184	363	76.1
2014	191	216	407	93.7
2015	186	243	429	112.0
2016	191	295	487	116.8
2017	169	381	549	135.6
2018	149	450	599	153.0

Source of data: Public Sector Pension Investment Board annual reports and the *Public Accounts of Canada* for years ended March 31, 2009 to March 31, 2018

In fiscal year ended March 31, 2018, total administrative expenses for the public sector pension plans were \$599 million. Administrative expenses for each pension plan were as follows:

- Public service pension plan: \$428 million
- RCMP pension plan: \$42 million
- Canadian Armed Forces pension plan: \$119 million
- Reserve Force pension plan: \$10 million

Source of data: Public Sector Pension Investment Board annual reports and the *Public Accounts of Canada* for years ended March 31, 2009 to March 31, 2018

Impact on public finances

Table 2 shows a summary of transactions for the plans that resulted in expenses for the Government of Canada in the fiscal year ended March 31, 2018. These expenses are calculated based on Canadian public sector accounting standards and are included in the *Public Accounts of Canada* 2017–2018.

The **pension expenses** include employers' contributions and recognized actuarial valuation gains and losses and other adjustments.

The **net interest expenses** are calculated based on the average accrued pension obligations (benefits earned by members under their pension plan for pensionable service).

Table 2. Summary of expenses in fiscal year ended March 31, 2018, for the public sector pension plans (\$ millions)

	Pension	Net interest	Total
Pension plan	expenses	expenses	expenses

Pension plan	Pension expenses	Net interest expenses	Total expenses
Public service	\$4,701	\$2,322	\$7,023
Canadian Armed Forces	\$2,241	\$1,290	\$3,531
RCMP	\$697	\$358	\$1,055
Reserve Force	\$16	\$0	\$16
Total expenses	\$7,655	\$3,970	\$11,625

Source of data: Public Accounts of Canada 2017–2018, volume I, Table 6.16

Pension plan funding

▼ In this section

- Key measures to support sustainability
- Actuarial valuations
 - Methodology and assumptions used in actuarial valuations
 - Sensitivity analysis of actuarial assumptions
 - Actuarial valuation report balances

Key measures to support sustainability

The governance framework of the public sector pension plans includes key measures that help ensure that the plans remain sustainable and affordable for plan members and taxpayers. These measures include:

- actuarial valuations, which provide an estimate of expenses and obligations
- reviews of the funded status of the plans
- the pension plans' annual reports

Each plan also has an advisory committee that comprises representatives of the employer, active plan members and retired plan members. These committees provide additional oversight, accountability and transparency by reviewing administration, design and funding of benefits.

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 RCMP and National Defence, has finalized a formal <u>funding policy for the public sector pension plans</u>. This policy is available on Canada.ca.

Actuarial valuations

Actuarial valuations are performed regularly to support the administration of the pension plans. The Office of the Chief Actuary performs 2 types of actuarial valuations:

- 1. **Actuarial valuations for accounting purposes** are conducted as at March 31 of each fiscal year to measure and report on the pension expenses and obligations in the *Public Accounts of Canada*, and to provide the necessary information to prepare the plans' financial statements.
- 2. **Actuarial valuations for funding purposes** are conducted at least once every 3 years to determine the contribution rates, actuarial liability and the funded status of the plans. These valuations help the President of the Treasury Board make informed decisions on the financing of the pension plans. Assessments of the funded status of the pension plans are done annually, in consultation with the Office of the Chief Actuary.

Methodology and assumptions used in actuarial valuations

Economic assumptions are set in order to conduct actuarial valuations. Population characteristics and benefit provisions are specific to each pension plan. Assumptions underlying the actuarial valuation for accounting purposes are based on management's best estimates. The Office of the Chief Actuary determines the best-estimate assumptions used in actuarial valuations for funding purposes.

As part of the economic assumptions, discount rates are used to determine the present value of the future pension payments (the accrued benefit obligation or the actuarial liability), the costs of benefits earned, and the interest expenses.

Discount rates are set as follows:

For accounting purposes:

- For **funded** pension benefits (post-March 2000), the discount rates are the streamed expected rates of return on funds invested by the PSPIB.
- For **unfunded** pension benefits (pre-April 2000), the discount rates are the Government's cost of borrowing. That cost is 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 funding purposes:

- For **funded** pension benefits (post-March 2000), the discount rates are the streamed expected rates of return on funds invested by the PSPIB.
- For unfunded pension benefits (pre-April 2000), the discount rates are
 the streamed weighted average of Government of Canada long-term
 bond rates. The streamed weighted average of Government of Canada
 long-term bond rates is a calculated 20-year weighted moving average
 of Government of Canada long-term bond rates projected over time.

The streamed rates take into account historical Government of Canada long-term bond rates and, over time, reflect expected Government of Canada long-term bond rates.

Table 3 shows some of the key economic assumptions used in the most recent actuarial valuations.

Table 3. Discount rates and assumptions used in actuarial valuations

	Long-term d	liscount rate	Long-term rate	
Actuarial report	Unfunded pension benefits (pre- April 2000)	Funded pension benefits (post-March 2000) *	Salary increase	Pension indexation
For accounting purposes (as at March 31, 2018)	2.2%	5.8%	2.6%	2.0%
For funding purpo	oses			
Public service (as at March 31, 2017)	4.7%	6.0%	2.8%	2.0%
Canadian Armed Forces (as at March 31, 2016)	4.7%	6.0%	2.8%	2.0%
Reserve Force (as at March 31, 2016)	n/a	6.0%	2.8%	2.0%

	Long-term d	liscount rate	Long-term rate	
Actuarial report	Unfunded pension benefits (pre-April 2000)	Funded pension benefits (post-March 2000) *	Salary increase	Pension indexation
RCMP (as at March 31, 2015)	4.8%	6.1%	2.9%	2.0%

*

Long-term discount rates are calculated on a nominal basis and comprise the real rate of return and an indexation factor.

Source of data: Actuarial reports of the Office of the Chief Actuary and *Public Accounts of Canada 2017–2018*

Sensitivity analysis of actuarial assumptions

Changes in actuarial assumptions for valuation sensitivity analysis purposes can result in significantly higher or lower estimates of the accrued pension obligations. Table 4 shows the impact of a 1% increase or decrease to the long-term actuarial assumptions on the 4 main public sector pension plans, as well as on the pension arrangements for members of Parliament, federally appointed judges, non-career diplomats, the Governor General and lieutenant governors, and retirement compensation arrangements.

Table 4. Sensitivity analysis of actuarial assumptions for accounting purposes for Government of Canada-sponsored pension plans for fiscal year ended March 31, 2018 (\$ millions)

Changes in actuarial assumptions	Unfunded pension benefits (pre-April 2000)	Funded pension benefits (post-March 2000)
Increase of 1% in discount rates	(24,900)	(21,100)
Decrease of 1% in discount rates	31,300	27,500
Increase of 1% in rate of inflation	28,300	18,400
Decrease of 1% in rate of inflation	(23,200)	(15,000)
Increase of 1% in general wage increase	1,100	6,700
Decrease of 1% in general wage increase	(1,100)	(5,900)
Source of data: Public Accounts of Canad	la 2017-2018, volui	me I, section 2

Actuarial valuation report balances

Tables 5 and 6 show the balances of the superannuation account and the pension fund of each pension plan as of the last triennial funding valuation.

Table 5. Account balance and actuarial liability of the superannuation account as at March 31 (\$ millions)

Balance	Public Service 2017	Canadian Armed forcese 2016	Reserve Force 2016	RCMP 2015
Account balance	\$94,270	\$45,718	n/a	\$13,203
Actuarial liability	\$97,137	\$47,385	n/a	\$13,428
Source of data:	Actuarial report	s of the Office of the 0	Chief Actuary	

Table 6. Actuarial value of assets and liability of the pension fund as at March 31 (\$ millions)

Balance	Public Service 2017	Canadian Armed Forces 2016	Reserve Force 2016	RCMP 2015
Actuarial value of assets	\$92,956	\$22,478	\$513	\$7,286
Actuarial liability	\$87,313	\$24,048	\$566	\$7,440
Source of data: Actuarial reports of the Office of the Chief Actuary				

Source documents

- <u>Report on the Public Service Pension Plan for the Fiscal Year Ended March</u> 31, 2018
- Royal Canadian Mounted Police Pension Plan: Annual Report, 2017–18
- 2016–17 Annual Report: Canadian Armed Forces Pension Plans
- Public Sector Pension Investment Board annual reports, 2009 to 2018
- Public Accounts of Canada 2017-2018
- Actuarial Report on the Pension Plan for the Public Service of Canada as at 31 March 2017
- <u>Actuarial Report on the Pension Plans for the Canadian Forces Regular</u> <u>Force and Reserve Force as at 31 March 2016</u>
- <u>Actuarial Report on the Pension Plan for the Royal Canadian Mounted</u> <u>Police as at 31 March 2015</u>

Glossary

actuarial adjustments

The special payments that the Government of Canada is required to make to fund actuarial deficits.

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.

actuarial value of assets

The actuarial value of assets is a method to value the investments of a pension plan using a 5-year smoothed value. Under this method, the expected return on investments is recorded immediately, while the difference between the expected and actual return on investments is recorded over a 5-year period through actuarial gains and losses. The actuarial value of assets is adjusted, if necessary, to ensure that it does not fall outside a limit of plus or minus 10% of the market value of investments at year end. Any difference is recorded immediately through actuarial gains and losses.

administrative expenses

Expenses by government departments for the administration of the public sector pension plans and for operating expenses incurred by the PSPIB to invest pension assets. Investment management fees are either paid directly by the PSPIB or offset against distributions received from the investments.

benchmark

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

contributions

Sums credited or paid by the employer and 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.

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 4 main public sector pension plans are defined benefit pension plans.

pension liability or pension obligation

Corresponds to the value, discounted in accordance with actuarial assumptions, of all future payable benefits accrued as of the valuation date in respect of all previous pensionable service.

pensionable service

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

pension transfers

Transfers made under an agreement negotiated between the Government of Canada and an eligible employer to provide portability of accrued pension credits from one pension plan to the other.

service buyback

A service buyback is a legally binding agreement under which a member purchases a period of prior service to increase his or her pensionable service.

survivor

For the purposes of the public service pension plan, a person who, at the time of a plan member's death, was married to the plan member before his or her retirement or was cohabiting with the plan member in a conjugal relationship prior to the member's retirement and for at least 1 year prior to the date of death.

For the purposes of the pension plans for the CAF and RCMP, a survivor is a person who, at the time of a plan member's death, was married to the plan member, or was cohabiting with the plan member in a conjugal relationship for at least one year prior to the plan member's retirement, or if retired, prior to the member's 60th birthday.

yearly maximum pensionable earnings (YMPE)

The maximum earnings based on which contributions are made to the Canada Pension Plan and the Québec Pension Plan during the year. In 2018, yearly maximum pensionable earnings were \$55,900 (\$55,300 in 2017).

Appendix: General information on the plans

Public service pension plan

Element	Group 1 * (pension eligibility at age 60)	Group 2 ** (pension eligibility at age 65)
Contributions	A percentage of member's salary	
Lifetime pension	2% × average salary × years of pensionable service (maximum 35 years) (calculation includes bridge benefit)	
Bridge benefit	0.625% × average salary up to the AMPE $\frac{***}{}$ × years of pensionable service (maximum 35 years)	

Element	Group 1 * (pension eligibility at age 60)	Group 2 ** (pension eligibility at age 65)
Immediate annuity	 Age 60 or over with at least 2 years of pensionable service Age 55 or over with at least 30 years of pensionable service Under age 60 with at least 2 years of pensionable service and retiring due to disability 	 Age 65 or over with at least 2 years of pensionable service Age 60 or over with at least 30 years of pensionable service Under age 65 with at least 2 years of pensionable service and retiring due to disability
Deferred annuity	 Accrued pension calculated according to the pension formula, payable at age 60 	 Accrued pension calculated according to the pension formula, payable at age 65
Annual allowance	 A permanently reduced pension, payable as early as age 50 and before age 60 	 A permanently reduced pension, payable as early as age 55 and before age 65
Transfer value	The actuarial value of the me payable in a lump sum. This a to another registered pension retirement savings vehicle.	amount must be transferred
	 Under age 50 with at least 2 years of pensionable service 	 Under age 55 with at least 2 years of pensionable service

Element	Group 1 * (pension eligibility at age 60)	Group 2 ** (pension eligibility at age 65)
Return of contributions	 Any age with less than 2 years of pensionable service Return of contributions with interest 	
Survivor benefit	 At least 2 years of pensionable service A monthly allowance equal to half of the pension benefit the member would have received before age 65 Less than 2 years of pensionable service 	
	Return of contributions with interest	
Child allowance	 At least 2 years of pensionable service Each child is entitled to a monthly allowance equal to 10% of the member's unreduced pension, to a maximum of 40% distributed equally if there are more than 4 children. If there is no survivor, the child allowance is doubled. 	
	• Less than 2 years of pensionable service Return of contributions with interest	
Indexation	Pension is increased on January 1 of each year to take into account the cost of living, based on increases in the Consumer Price Index.	

Elemei	nt	Group 1 * (pension eligibility at age 60)	Group 2 ** (pension eligibility at age 65)
<u>*</u>		ers who were participating ir nber 31, 2012.	n the plan on or before
<u>**</u>		Members who began participating in the plan on or after January 1, 2013.	
<u>***</u>	AMPE (average maximum pensionable earnings) means the average yearly maximum pensionable earnings set by the Canada Pension Plan and the Québec Pension Plan for the member's year of retirement and the 4 preceding years.		

Royal Canadian Mounted Police pension plan

Element	Regular members
Contributions	A percentage of member's pensionable earnings aligned with Group 1 rates for the public service pension plan

Element	Regular members
Lifetime pension	1.375 × average of average salary up to the AMPE * × years of pensionable service (maximum 35 years) Plus 2% x average salary in excess of the AMPE * × years of pensionable service (maximum 35 years)
Bridge benefit	0.625% × average salary up to the AMPE * × years of pensionable service (maximum 35 years) payable until age 65 or until the plan member becomes entitled to CPP or QPP disability benefits
Immediate annuity	 Age 60 or over with at least 2 years of service At least 25 years of service, regardless of age Under age 60 with at least 2 years of pensionable service if approved for a disability discharge
Deferred annuity	Between 2 years and less than 20 years of service in the Force: An unreduced pension benefit payable at age 60
Annual allowance	A permanently reduced pension, payable based on more than 20 but less than 25 years of service in the Force

Element	Regular members
Transfer value	 Between 2 years and less than 20 years of service in the Force The actuarial value of the member's pension benefits, payable in a lump sum. This amount must be transferred to another registered pension plan or to a locked-in retirement savings vehicle.
Return of contributions	Any age with less than 2 years of service Return of contributions with interest
Survivor benefits	 At least 2 years of service A monthly allowance equal to half of the member's unreduced pension benefit Less than 2 years of service Return of contributions + interest
Child allowance	 At least 2 years of service Each child is entitled to a monthly allowance equal to 10% of the member's unreduced pension, to a maximum of 40% distributed equally if there are more than 4 children. If there is no survivor, the child allowance is doubled. Less than 2 years of service Return of contributions + interest

Element	Regular members	
Indexation	Pension is increased on January 1 of each year to take into account the cost of living, based on increases in the Consumer Price Index.	
ave Car	PE (average maximum pensionable earnings) means the rage yearly maximum pensionable earnings set by the lada Pension Plan and the Québec Pension Plan for the mber's year of retirement and the 4 preceding years.	

Canadian Forces pension plans

Element	Regular Force (CFSA, Part I)	Reserve Force (CFSA, Part I. 1)
Contributions	A percentage of member's pensionable earnings aligned with Group 1 rates of the public service pension plan	Legislated in the Reserve Force Pension Plan Regulations

Element		Regular Force (CFSA, Part I)	Reserve Force (CFSA, Part I. 1)
Lifetime pension	•	2% × average of best 5 consecutive years of salary × years of pensionable service (maximum 35 years) (calculation includes bridge benefit)	1.5% × greater of total pensionable earnings and total updated pensionable earnings
Bridge benefit		0.625% × average salary up to the AMPE * × years of pensionable service (maximum 35 years)	0.5% × greater of total bridge benefit earnings and total updated bridge benefit earnings
Immediate annuity		 Age 60 with at least 2 years of pensionable service Age 55 with at least 30 years of pensionable service 25 years (9,131 days) of Canadian Forces service Involuntarily released with at least 20 years of pensionable service or at age 55 or older with at least 10 years of pensionable service 	
<u>*</u>	averao Canad	(average maximum pensionable ege yearly maximum pensionable ege yearly maximum pensionable ege a Pension Plan and the Québec Pension of retirement and the 4	earnings set by the ension Plan for the

Element	Regular Force (CFSA, Part I)	Reserve Force (CFSA, Part I. 1)
	 With 10 years of pensionable service and meets the definition of disabled upon release 	 With 2 years of pensionable service and meets the definition of disabled upon release
Deferred annuity	At least 2 years of pensionable service: Accrued pension calculated according to the pension formula, payable at age 60	
Annual allowance	At least 2 years of pensionable service: A permanently reduced pension, payable as early as age 50 and before age 60	
Transfer value	The actuarial value of the member's pension benefits, payable in a lump sum. This amount must be transferred to another registered pension plan or to a locked-in retirement savings vehicle.	
Return of contributions	Any age with less than 2 years of pensionable service: Return of contributions with interest	

Element	Regular Force (CFSA, Part I)	Reserve Force (CFSA, Part I. 1)
Survivor benefit	 At least 2 years of pensionable service (maximum 35 years) × average of best 5 consecutive years of salary Less than 2 years of pensionable service The greater of a return of contributions + interest, or an amount equal to 1 month's basic pay for each year of pensionable service 	 At least 2 years of pensionable service 1% × greater of total pensionable earnings or total updated pensionable earnings Less than 2 years of pensionable service The greater of a return of contributions + interest, or a lump sum

Element	Regular Force (CFSA, Part I)	Reserve Force (CFSA, Part I. 1)
Child allowance	 At least 2 years of pensionable service Each child, to a maximum of 4, receives a pension equal to 20% of the pension payable to the survivor Less than 2 years of pensionable service The greater of a return of contributions + interest, or a lump sum 	• At least 2 years of pensionable service and a survivor Each child, to a maximum of 2, receives a pension equal to 25% of the pension payable to the survivor 3 or more children: Half of the basic survivor allowance divided by number of children
Indexation	Pension is increased on January 1 account the cost of living, based (Consumer Price Index.	•
avera Canad	E (average maximum pensionable of ge yearly maximum pensionable ed a Pension Plan and the Québec Pober's year of retirement and the 4	arnings set by the ension Plan for the

Footnotes

- 1 The Public Service Superannuation Act, the Canadian Forces Superannuation Act, and the Royal Canadian Mounted Police Superannuation Act.
- Actuarial adjustments are the special payments that the government is required to make to fund actuarial deficits.

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