



Office of the Superintendent of
Financial Institutions Canada

Bureau du surintendant des
institutions financières Canada

Office of the Chief Actuary

Bureau de l'actuaire en chef

Office of the Chief Actuary

2016-2019 Business Plan



OSFI
BSIF

Canada 

Strategic Objectives

The mission and mandate of the Office of the Chief Actuary (OCA) are central to its contribution to Canadians and Canada's retirement income system. The OCA strives to provide actuarial advice and contributes in enhancing the public confidence in the retirement income system, the federal public sector retirement system and other social security programs for which the Canadian taxpayer is a stakeholder. It monitors and communicates future demographic and economic risks by submitting regular statutory actuarial reports. These reports are designed to inform Members of Parliament, representatives of client departments and decision-makers thereby contributing to greater public confidence in the management of the programs.

Business Environment

The Canadian retirement income system includes the diversification of income sources (private and public pensions) and funding approaches. A mix of full funding (Registered Pension Plan/Pooled Registered Pension Plan/Registered Retirement Savings Plan/Tax Free Savings Account [RPP/PRPP/RRSP/TFSA]), partial funding (Canada Pension Plan/Québec Pension Plan [CPP/QPP]) and pay-as-you-go funding (Old Age Security/Guaranteed Income Supplement [OAS/GIS]) is well recognized for its capacity to adapt to changing conditions, including the aging of the population. The combination of the OAS basic pension, the GIS, the compulsory contributory pension plans (CPP and QPP), private employer pension plans and individual savings plans has contributed significantly to reducing poverty among seniors over the past decades.

Canada has set in place a public pension system that is expected to be sustainable and affordable well into the future. Ongoing review of the system, including actuarial studies performed by the OCA on various public pension programs, will help to ensure this remains the case.

Enterprise Risk Management

The OCA participates in OSFI's Enterprise Risk Management (ERM) process. The purpose of risk management is to manage risks within established risk tolerances. As part of the framework, the OCA is required to conduct a complete annual formal review of all its identified risks as well as lighter quarterly reviews of its consolidated risks.

The environment in which the OCA operates poses an array of risks to the achievement of its mandate and objectives. While many of these challenges are consistently present, the extent to which they pose a risk to OCA's objectives varies, depending on economic and financial conditions and the legal environment. OCA's ability to achieve its mandate depends on the timeliness and effectiveness with which it identifies, evaluates, prioritizes, and develops initiatives to address areas where its exposure to risk is greatest.

Consistent with its mandate and mission, the OCA contributes through the provision of expert actuarial valuation and advice to financially-sound federal government pension plans and other programs. Statutory actuarial reports must be prepared and submitted on a regular basis to the appropriate Minister in order to be tabled in Parliament. All of the following activities play a crucial role in the delivery of high quality actuarial reports: gaining access to the required information, challenging the administration on the quality of data, ensuring reasonableness of the assumptions and methods used, communicating the results of the work performed by the Chief Actuary and his or her staff, complying with the relevant professional

standards of practice, validating of the accuracy of liability estimates and illustrating the uncertainty of results.

The current challenging demographic and economic environments in which the retirement income system operates are putting an additional premium on the professionalism of the Chief Actuary and on his/her being, and perceived to be, fully accountable and professionally independent. Credibility in this regard is particularly important because of its focus on the quality of the actuarial opinions provided in the actuarial reports the OCA publishes. The actuarial opinions address the methodology employed, the quality of the data and the appropriateness of the assumptions used.

Demographic Environment

In its actuarial reports, the OCA provides a best-estimate of the future size and composition of the population of Canada. Specifically, the projections provide long-term estimates of the number of births, deaths, immigrants, emigrants, and age and sex composition of the Canadian population.

Increasing longevity is one of the top pension risks and will continue to put pressure on the financing of pension plans. The assessment of the increases in longevity is very challenging due to a high degree of uncertainty regarding future mortality improvements.

Given the variability in the key determinants of the size of the population (fertility, mortality and migration) and the length of the projection period, there are risks that actual experience will not develop exactly in accordance with the best-estimate assumptions. As such, sensitivity tests are performed in actuarial reports, showing the financial impacts of younger and older population scenarios.

Economic Environment

Under the OCA best-estimate scenario, a moderate but sustainable growth in the economy is assumed to persist throughout the projection period. Over the long term, economic cycles have little impact on the cost of the pension programs as long as, on average, the ultimate assumptions are realized. The economic impacts on the programs depend on the assumed pattern of rates of return on investments, real wages, inflation rates and labour force participation rates. As such, low- and high-cost economic sensitivity tests, as well as tests illustrating tail events, are performed in actuarial reports, showing the financial impacts it would have on the long-term costs of the programs.

Business Activities

The OCA provides actuarial advice to the Government of Canada for a variety of programs. The OCA estimates the long-term expenditures of the OAS program, the long-term contribution rates for the CPP, the benefits, revenues and liabilities of the federal public sector pension and insurance plans, as well as the portfolio of loans and long-term costs of the Canada Student Loans Program (CSLP), and performs the actuarial forecasts and estimates necessary to set the Employment Insurance premium rate under Section 66 of the *Employment Insurance Act*. The OCA has a statutory responsibility to prepare actuarial reports on the financial status of these plans for tabling in Parliament by the appropriate Minister, as required by legislation.

Whenever a Bill is tabled before Parliament that has significant impact on the financial status of the CPP or an amendment is made to another public pension plan falling under the statutory responsibilities of the Chief Actuary, the OCA must submit an actuarial report valuing this impact to the appropriate minister.

The OCA also provides actuarial information on the CPP to provincial governments, who are the Plan's co-stewards. Major changes to the Plan benefits and contribution rates can come into effect only with the accord of two-thirds of the provinces with two-thirds of the population. The federal and provincial governments, as co-stewards of the CPP, took meaningful steps in 1997 and 1999 to strengthen the transparency and accountability of actuarial reporting on the CPP. In 1997, federal and provincial governments agreed that for greater public accountability, the frequency of actuarial reporting on the CPP should be increased from every five years to every three years. The CPP legislation was also changed to require federal and provincial ministers to review the Plan's finances every three years instead of every five years. In addition, independent peer reviews of the CPP Actuarial Reports were recommended in 1999 as a means to further enhance the quality and transparency of the reports. All of these changes have contributed to strengthened stewardship and accountability of the Plan.

Priorities for the 2016-19 Planning Period

The OCA has identified several priorities and projects that will address situations that the organization will face in the current planning period.

Central to the OCA is the triennial Actuarial Report on the CPP cycle. This report is one of the items to be considered by the federal and provincial finance ministers when reviewing and making recommendations with respect to the CPP. Following the preparation and submission to the Finance Minister of each Actuarial Report on the CPP, the OCA commissions an external peer review of the report that aims at enhancing the transparency of the CPP report and ensuring that the most stringent standards and international best practices are applied. The U.K.'s Government Actuary's Department (GAD) ranks candidates for the panel of independent peer reviewers and then releases an opinion of the work performed by the review panel upon their completion. In preparation for the next triennial Actuarial Report on the CPP cycle, the OCA takes appropriate actions regarding the recommendations made by the independent peer reviewers.

The OCA's other major priorities are the preparation and submission of statutory actuarial reports on various social security and public insurance and pension plans. The OCA also provides actuarial services to several government departments and international social security organizations.

As a result of an increasing risk of potential changes in the demographic and economic environment, OCA must have the resources in place to monitor and evaluate, in its actuarial reports, the potential risk that actual experience will not develop exactly in accordance with the best-estimate assumptions on the future size and composition of the population of Canada and the future growth in the economy. OCA carries out sensitivity tests showing the financial impact of younger and older population scenarios, low- and high-cost economic tests as well as tail events on the long-term programs' cost. This is essential to meeting OCA's key ongoing responsibility of accurate risk assessment through our statutory actuarial reports that inform Parliamentarians, client departments and decision-makers.

The OCA is continuously involved in preparing various experience studies and research covering a wide range of social security, demographic and economic issues that may affect the financial status of pension or benefit plans. Some of these studies also serve to support policymakers in developing and analysing various policy options in the context of plan reforms. The information presented in these studies could benefit private sector organizations that evaluate social security programs or private pension plans.

The OCA also updates and enhances processes to ensure alignment and integration with OSFI's corporate planning processes, including the ERM, the development and reporting of plans and priorities, and managing outcomes and performance.

Major Projects – Canada Pension Plan/Old Age Security

- Prepare actuarial reports on the Canada Pension Plan
- Prepare actuarial reports on the Old Age Security Program
- Assist with the independent peer review of most recent CPP Actuarial Report
- Take appropriate actions regarding recommendations on the CPP Actuarial Report made by most recent CPP Independent Review Panel
- Take appropriate actions regarding recommendations of OSFI Internal Audit Team
- Provide actuarial advice to CPP Committee for the triennial review of Finance Ministers
- Provide actuarial advice on CPP/OAS to Employment and Social Development Canada (ESDC), Finance, CPP Committee and CPP Investment Board
- Prepare intervaluation actuarial studies (child rearing provision, actuarial adjustment factors, assessing CPP financial sustainability, analysis of mortality by cause, stochastic processes)
- Prepare CPP and OAS/GIS 10-year monthly benefit projections
- Prepare various costing/estimates/notes/ reports for CPP and OAS litigation cases
- Appear as expert witness at CPP Review Tribunal and/or Pension Appeals Board
- Prepare special studies/notes/reports on CPP/OAS for various national and international organisations including the International Social Security Association, International Actuarial Association, and Canadian Institute of Actuaries (CIA)/Society of Actuaries
- Prepare CPP inter-disciplinary seminars
- Maintain and update databases on CPP contributors, CPP beneficiaries and OAS beneficiaries
- Produce various statistical reports/studies based on the various databases
- Follow-up on request for new data fields for various databases

Major Projects – Public Sector Pension Plans

- Prepare actuarial reports on the Pension Plan for the Members of Parliament
- Prepare actuarial reports on the Pension Plan for the Federally Appointed Judges
- Prepare actuarial reports on the Public Service Pension Plan
- Prepare actuarial reports on the Public Service Death Benefit Account
- Prepare actuarial reports on the Royal Canadian Mounted Police Pension Plan (RCMP pension plan)
- Prepare actuarial reports on the Royal Canadian Mounted Police – Dependents' Pension Fund (RCMP Part IV)
- Prepare actuarial reports on the Canadian Forces Pension Plan (Regular Force and Reserve Force)
- Prepare actuarial reports on the Regular Force Death Benefit Account

- Prepare mortality experience studies for the public service and the RCMP pension plans
- Prepare actuarial reports for the *Public Accounts of Canada*, namely for pension plans and severance benefits,
- Provide actuarial services provided to Crown Corporations for accounting purposes
- Perform actuarial work for the Pension Advisory Committees and the Public Sector Pension Investment Board (PSPIB)
- Update and maintain pension transfer agreement, *Pension Benefits Division Act*, transfer value, and optional survivor benefit modules used by pension plan administrators
- Perform various individual calculations including Reciprocal Transfer Agreements, Optional Survivor Benefits and Arrears calculations
- Provide actuarial advice to TBS (including to the Office of the Comptroller General) and Department of Finance on various pension plans
- Provide actuarial services to RCMP and Department of National Defence (DND) including litigation cases
- Provide actuarial advice to Department of Justice

Major Projects – Public Sector Insurance Plans

- Prepare actuarial reports for the *Public Accounts of Canada*, namely for Workers' Compensation Benefits, Sick Leave Benefits and Post-Retirement Benefits under the Public Service Health Care Plan and the Pensioners' Dental Services Plan
- Provide actuarial services and expert advice to the TBS and Department of Finance on the long-term disability and insurance plans for the public service
- Provide actuarial advice to the TBS with respect to the annual review of premium rate, reserve basis changes and financial reporting for the public service insurance plans
- Prepare triennial actuarial reports to the TBS on the post-retirement life insurance benefits for the public service insurance plans for the purpose of rate setting
- Provide actuarial advice to the TBS related to the Workplace and Wellness Productivity Strategy

Major Projects –Veterans Affairs Canada

- Prepare annual actuarial reports on Future Benefits for Veterans and RCMP Clients of Veterans Affairs Canada for the *Public Accounts of Canada*
- Prepare actuarial valuation on the Returned Soldiers and Veteran's Insurance Plans
- Provide actuarial services and expert advice to Veterans Affairs Canada including preparing estimates of program changes

Major Projects – Canada Student Loans Program

- Prepare statutory actuarial reports on the Canada Student Loans Program (CSLP)
- Prepare annual intervaluation actuarial reports to support ESDC's accounting requirements
- Improve and maintain the forecast model required for estimating the costs and long-term financial projections of CSLP, including the Repayment Assistance Plan and Canada Student Grant Program
- Provide advisory services to TBS and the Department of Finance

- Provide actuarial advice in conjunction with legislative changes to the *Canada Student Financial Assistance Act*

Major Projects – Employment Insurance Program

- Prepare actuarial reports on the Employment Insurance Premium Rate (Rate-Setting Report)
- Develop a new methodology and new assumptions to determine the premium rate under the new 7-year rate setting mechanism and maintain valuation models
- Provide ad hoc economic monitoring reports and other requests from the Canada Employment Insurance Commission

Major Projects – Government Annuities and Civil Service Insurance Program

- Prepare actuarial reports on the Government Annuities
- Prepare actuarial reports on the Civil Service Insurance Program
- Provide actuarial services to the ESDC with respect to these programs