

# **Alberta Pension Plan – Analysis of Costs, Benefits, Risks and Considerations**

**Report from LifeWorks**

August 2023

# Table of Contents

<b>Executive summary .....</b>	<b>1</b>
<b>Background .....</b>	<b>5</b>
<b>History and features of CPP .....</b>	<b>6</b>
<b>Key features of an Alberta Pension Plan.....</b>	<b>8</b>
<b>Process for withdrawing from the CPP .....</b>	<b>20</b>
<b>Transition considerations .....</b>	<b>22</b>
<b>Delivering an APP .....</b>	<b>26</b>
<b>Opportunities for additional analysis .....</b>	<b>35</b>
<b>Appendices .....</b>	<b>36</b>
<b>Glossary .....</b>	<b>37</b>
<b>Appendix A: Additional considerations for an APP .....</b>	<b>38</b>
<b>Appendix B: Additional discussion of Asset Transfer from CPP to an APP .....</b>	<b>47</b>
<b>Appendix C: Detailed APP financial results and actuarial model.....</b>	<b>53</b>
<b>Appendix D: Additional legal and governance considerations .....</b>	<b>82</b>

# Executive summary

Alberta Treasury Board and Finance (ATBF) has engaged LifeWorks to prepare a detailed analysis of the costs, benefits and structure of a potential Alberta Pension Plan (APP). This analysis includes actuarial, economic, legal, and technical information regarding the establishment and ongoing operation of an APP. This analysis will give ATBF a clearer picture on what a future provincial pension plan may look like and help answer key questions that Albertans are asking about the costs and benefits of such a move.

This report does not contain any recommendations or endorsements relating to the creation and operation of an APP; nor does it contain any opinion or recommendation in relation to the current or future operation of the Canada Pension Plan (CPP).

It should be noted that analysis like this is complex when dealing with a social security program like the CPP that has been in operation for over 55 years and covers nearly all working and retired Canadians outside of Québec. We have reviewed considerable amounts of data and legislation, built and calibrated a complex valuation model and performed significant analysis in order to summarize the information and prepare this report. We have prepared our cost estimates based on publicly available information and aggregate data, and methodology consistent with that used to determine contribution requirements under the CPP. While we have confidence in the reasonableness of the results provided, a final APP contribution rate based on actual data including asset amounts and individual CPP membership data as well as a different methodology/philosophy for funding benefits could produce different outcomes.

The key questions considered in this report are:

- Could Alberta withdraw from the CPP? If so, what is the process and timeline?
- What would the level of pension benefits and associated contribution rate be for an APP?
- What are the considerations for a successful transition to an APP?
- How would the establishment of an APP affect other government programs?
- What are the set up and ongoing costs for an APP and who could be the service providers for an APP?

This section will provide an overview of the more detailed results provided in the following sections.

## **Could Alberta withdraw from the CPP? If so, what is the process and timeline?**

According to the *Canada Pension Plan Act* (the CPP Act), Alberta can withdraw from the CPP and set up its own APP. Under the CPP Act, a province can withdraw from the CPP if it meets the requirements outlined below. The other provinces are not legally entitled to a formal role in the withdrawal process or a veto over the withdrawal. In order to meet the prescribed withdrawal requirements, the replacing provincial plan must:

1. Provide notice in writing of its intention to withdraw from CPP in accordance with Section 3(1) of the CPP Act;
2. Accept contributions beginning in the third year following the year in which the province gives written notice of its intention to withdraw from the CPP;
3. Provide comparable benefits to the CPP; and
4. Assume all obligations and liabilities accrued and accruing in the CPP for members residing in the province up to the beginning of the third year following notice.

Based on these conditions above, and for the purposes of this report solely, we have made our calculations based on notification being provided on January 1, 2024, with an APP being effective on January 1, 2027, and that the level of APP benefits would be the same as the CPP. Note, we have not been provided a timeline or indication that Alberta is pursuing this option; the notification date chosen was merely for illustration purposes.

An APP would also be entitled to a share of CPP assets. The calculation of this amount is set out in the CPP Act and is equal to Albertans' contributions less benefit payments and expenses accumulated with net investment earnings. Using publicly available information, we estimate this asset amount to be \$334 billion at January 1, 2027 for the Base CPP using our reasonable interpretation of the CPP Act. This represents approximately 53% of the total estimated Base CPP assets on this date, which is significantly higher than Alberta's representative population in the CPP, which is about 15%. Due to Alberta's younger population, higher pensionable earnings, and higher employment rates, contributions by Albertans to the CPP have historically exceeded the benefits paid to Albertans.

The corresponding estimated amount of asset transfer with respect to the Additional CPP is estimated to be \$16 billion as at January 1, 2027, which is about 17% of the Additional CPP assets. The Additional CPP has only been in place since 2019, and because of this, the historical difference between contribution and benefits observed in the Base CPP for Albertans does not have the same impact on the asset transfer amount from the Additional CPP.

#### **What would the level of pension benefits and associated contribution rate be for an APP?**

As noted in the prior section, for the purposes of our analysis, we have assumed that an APP's benefits would be the same as the CPP. Alberta could amend or change an APP once it has been established. If and how Alberta decides to unilaterally amend or change an APP would need to be outlined in its enabling legislation, and considered in the governance of an APP.

We have used substantially the same assumptions as used in the CPP 31 Report to project the Alberta population for the purposes of this analysis. As a result, over the long term, the Alberta population is projected to eventually become comparable to the general CPP population with the benefit of Alberta's current younger demographic being dampened.

Given the size of the expected asset transfer from the CPP and Alberta's current younger demographic, a Base APP would also be able to deliver benefits over the long term at a lower cost than the Base CPP. However, the cost of an Additional APP would be similar to the Additional CPP since current Alberta demographic advantages are assumed to disappear over the long term. The following table compares the estimated Base and Additional APP contribution rates, the minimum required sustainable CPP contribution rates from the CPP 31 Report, and the legislated Base and Additional CPP contribution rates. Note that the Additional CPP benefits are divided into two levels and are being phased in between 2019 and 2025.

**Table 1 – Comparison of contribution rates under an APP and the CPP**

	<b>Estimated Minimum Contribution Rates for an APP</b>	<b>Minimum Contribution Rates for the CPP – CPP 31 Report</b>	<b>CPP – Legislated Rates</b>
<b>Base Benefit</b>	5.91%	9.54% <sup>1</sup>	9.90%
<b>First Additional Benefit</b>	1.98%	1.97%	2.00%
<b>Second Additional Benefit</b>	7.92%	7.88%	8.00%

<sup>1</sup> The CPP 31 Report discloses CPP Minimum Contribution Rate of 9.56% for 2025-2033, 9.54% for 2034+.

These contribution rates for an APP translate into an estimated aggregate contribution savings of approximately \$5 billion in the first year (2027) of an APP's operation, due to the lower contribution requirements for the Base APP. On an individual basis employees and employers would each have approximate full year savings of up to \$1,425 per employee. This individual savings estimate applies for individuals whose earnings are at or above the estimated 2027 Year's Maximum Pensionable Earnings (YMPE)<sup>2</sup> level; for those with lower incomes, the dollar savings will be proportionately lower.

It is important to note however that if an APP is established, the Government of Alberta may set a legislated rate for an APP that is different from that of CPP, and also different from the minimum contribution requirement. For example, it may set a rate higher than the minimum contribution requirement to provide contribution stability. If the legislated rate is set higher than the minimum contribution requirement, then the savings estimated above will be less.

With this type of actuarial calculation, we have to make assumptions about economic and demographic conditions decades into the future. Different assumptions or different experience could impact these contribution rates. In addition, the Base APP contribution rates are sensitive to the asset transfer amount from the CPP. The body of the report and appendices contain additional analysis and sensitivities that will assist in understanding the factors impacting these contribution rates. Further, the contribution rates in our report display the same level of significance as those presented in the Actuarial Report on the Canada Pension Plan as at 31 December 2021 (the CPP 31 Report) for comparability but this inherently overstates the actual degree of precision of the results presented.

### **What are the considerations for a successful transition to an APP?**

The project of transitioning away from the CPP to an APP would be an extremely large and complex endeavour. The three-year timeline associated with notifying the Canadian Minister of Finance of the withdrawal to set up an APP will be a constraining factor and will require strong vision, organization, and execution. Once an APP becomes active, it needs to ensure that it has a structure in place to collect contributions, administer, pay and adjudicate benefits, and invest the assets.

In the report, we consider in more detail the pieces needed for a successful transition to an APP, but they can be summarized into the following categories:

1. Develop the framework for implementing and delivering an APP (plan design, investment management structure, governance, service providers);
2. Draft legislation, and develop CPP/Québec Pension Plan (QPP) agreements for coordinating benefits, and international social security agreements;
3. Setup service providers and implementation;
4. Communicate with Albertans and employers.

### **How would the establishment of an APP affect other government programs?**

There are a number of pieces of legislation in Alberta, including long-term disability, workers' compensation, and income support that include provisions for means testing/benefit adjustments that make reference to the CPP. This set of legislation would need to be adjusted for an APP as well. While beyond the scope of this analysis, the enactment of an APP would also cause other provinces as well as the federal government to review their legislation to ensure coordination.

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<sup>2</sup> The estimated YMPE for 2027 is \$75,400 provided in Table 4 of the CPP 31 Report.

## **What are the setup and ongoing costs for an APP and who could be the service providers of an APP?**

As noted above, setting up and delivering an APP is a significant task. An APP would be unique in that it will need to deliver at a significant scale right from the beginning, instead of organically growing operational capacity over time. The setup costs, in both time and dollars, for an APP will depend on the service provider model selected.

This report considers the different service provider options for contribution processing, benefit payment, dispute adjudication, investment management, actuarial services and auditors. The options generally considered are existing CPP providers, existing Alberta public sector providers, new APP providers, and private sector options.

We estimate that the setup costs for non-investment related activities will be between \$100 million and \$1,000 million. At the low end estimate, we have assumed that an APP would leverage existing CPP providers, whereas the high end assumes that an APP would set up completely new service providers. We estimate that initial ongoing annual non-investment related costs would be between \$100 and \$150 million.

In addition, the implementation costs for setting up the investment management structure could be between \$75 and \$1,200 million. Similar to the above, the lower end assumes that an APP leverages an investment manager with the size and expertise to manage the plan, whereas the high end assumes a new APP investment manager with the size and expertise to replicate the Canada Pension Plan Investment Board (CPPIB) is implemented. Ongoing investment management fees will depend on the asset structure of an APP and we have assumed they will be deducted from the gross investment returns.

If Alberta decides to leverage existing Alberta structures or create new ones to deliver an APP, then an APP could create up to 1,500 to 2,000 long term jobs in addition to the (temporary) jobs needed for implementation. These new jobs would not necessarily be based in Alberta. However, we would anticipate many of the jobs would be Alberta-based, and the number of new jobs and their location will be a function of the approach Alberta undertakes in implementing an APP.

Respectfully submitted on behalf of LifeWorks,

**[Redacted to protect privacy - Original signed]**

# Background

## Background and purpose

The report to the Government of Alberta (the Province) by the Fair Deal Panel covered many recommendations, including recommendation 13, which states that the Province should take unilateral steps to:

- (a) Develop a comprehensive plan to create an Alberta Pension Plan (APP) and withdraw from the Canada Pension Plan (CPP), and
- (b) Subsequently, provide Albertans the opportunity, via a referendum, to vote for or against withdrawing from the CPP and creating an APP.

Building upon this recommendation, the Province engaged LifeWorks to prepare this report, which contains analysis related to the costs, benefits, and operating structure of an APP. The analysis contained in this report has been prepared by LifeWorks's team of actuaries, lawyers, investment and administration professionals, and supplemented by additional legal analysis by Blake, Cassels & Graydon LLP. This report has been based upon the assumptions, data and results from the CPP 31 Report.

The objective of this report is to provide a clearer picture on what an APP may look like and help to answer key questions that Albertans may have about the costs and benefits of the plan. In addition, the report will also seek to identify, assess, and propose possible mitigation strategies associated with the establishment and ongoing operation of an APP. While this report may identify costs, benefits, risk, and options, it does not contain any recommendations or endorsements relating to the creation and operation of an APP; nor does it contain any opinion or recommendation in relation to the current or future operation of the CPP.

Where appropriate, we have performed any analysis in this report that compares an APP to the CPP on an equivalent basis to ensure the ability for an "apples to apples" comparison. For example, to ensure comparability of the contribution rates, we have assumed that an APP will provide identical benefits to the current CPP. We have used the same methodology as the CPP 31 Report to determine contribution requirements under an APP. We have also presented our figures to the same level of significance as those in the CPP 31 Report for comparative purposes, but this overstates the actual degree of precision inherent in our calculations.

# History and features of the CPP

## Overview

The CPP was implemented in 1966 to provide retirement income support to working Canadians in every province except Québec, which established the QPP to serve as its own counterpart to the CPP. The CPP and QPP maintain agreements to administer benefits from a single source. In addition, both plans maintain international social security agreements to ensure Canadians working internationally maintain their CPP/QPP eligibility.

Participation in the CPP is compulsory for every Canadian employed or self-employed in a province or territory outside Québec, as well as members of the Canadian Armed Forces and Royal Canadian Mounted Police who are employed in Québec, subject to a number of specific and narrow exemptions. CPP benefits are funded solely through contributions from employers, employees and self-employed individuals, and investment earnings; they are not subsidized by government. Contribution rates and benefits are calculated based on pensionable earnings and benefits are inflation-indexed annually based on the Canadian Consumer Price Index.<sup>3</sup>

In 1997, the CPPIB was established<sup>4</sup> and the funding of the CPP was changed from a “pay-as-you-go” approach, where annual contributions were expected to fund in-year benefit payments, to a partial funding approach, where the CPP collected contributions higher than in-year benefits, with the excess contributions professionally invested and to be used in the future when annual benefit payments exceed the annual contributions. The sustainability of the legislated contribution rate is tested every three years through an actuarial valuation that projects contributions, benefits, and investments over a long projection period. The latest actuarial valuation was completed as at December 31, 2021 (CPP 31 Report).

In 2016, the CPP was enhanced to provide Additional CPP benefits. These benefits provide a higher target replacement ratio on pensionable earnings, and also increased the level of earnings that would be considered pensionable. These enhancements are being implemented through increased contributions phasing in between 2019 and 2025. Unlike the Base CPP benefits (benefits in effect before the enhancements), where benefits are only partially pre-funded, these Additional CPP benefits are expected to be fully pre-funded by contributions during working years. An actuarial valuation is completed every three years. The latest actuarial valuation of the Additional CPP was as at December 31, 2021. There are legislated tests in place to ensure contributions are adequate to fund the benefits; if contributions are not adequate, benefits will be reduced.

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<sup>3</sup> *Morneau Shepell Handbook of Canadian Pension and Benefit Plans*, 17<sup>th</sup> edition, LexisNexis Canada Inc., 2020, pp. 44-45 (MS Handbook).

<sup>4</sup> The CPPIB was incorporated by an Act of Parliament (*The Canada Pension Plan Investment Board Act*) in December 1997.



## Base CPP overview

### Contributions

The amount that employers and employees each contribute to the Base CPP is the same and is based on a percentage of the employee's wages (pensionable earnings) between the Year's Basic Exemption (YBE) and up to the YMPE, both of which are defined in the CPP Act and further explained in the Glossary.<sup>5</sup> Employees' contributions are deducted from their pay and remitted to the Canada Revenue Agency (CRA) by their employers, together with the employer's own contributions, on a monthly basis. Self-employed persons contribute an amount equal to both the employer and the employee shares.

CPP contributions become payable when a person reaches age 18 and remain payable until a person reaches age 70, retires or dies.<sup>6</sup> The current Base CPP contribution rate is 4.95 per cent of pensionable earnings (for employees and employers, or 9.90 per cent for self-employed persons).<sup>7</sup> In 2022 there were approximately 15.2 million CPP contributors who contributed approximately \$61 billion in Base CPP contributions<sup>8</sup>. For comparison, we have estimated 2.3 million Albertans contributed \$10.1 billion to the Base CPP in 2022, extrapolating from the latest year for which provincial figures are available (2020).<sup>9</sup>

### Benefits

The Base CPP provides a monthly lifetime pension at age 65 that is indexed to increases in the Canadian Consumer Price Index on an annual basis. The pension benefit is determined using the member's contribution history relative to historical YMPs. The maximum pension that a participant can receive is equal to 25% of the five-year average YMPs in the year of retirement (\$1,288.33 per month in 2023). Participants can start their pension with a reduction as early as age 60, or with an increase as late as age 70. In addition to the lifetime pension, the Base CPP provides for benefits upon disability or death.

## Additional CPP overview

In 2016, the federal government introduced enhancements to the CPP, with the cooperation of the participating provinces.<sup>10</sup> These enhancements can be divided into two parts:

1. The First Additional CPP increases the maximum retirement pension payable from 25% of the five-year average YMPE to 33.33%. The benefit and associated increase in contributions are being phased in between 2019 and 2023. The ultimate First Additional Contribution Rate will be 2% of earnings up to the YMPE, split evenly between employees and employers.
2. The Second Additional CPP increases the level of pensionable earnings by 14% over the current YMPE. This new higher earnings limit will be referred to as the Year's Additional Maximum Pensionable Earnings (YAMPE). Benefits and additional contributions will be phased in over a two-year period from 2024 to 2025. After 2025, the Second Additional CPP contribution rate will be 8% of the earnings between the YMPE and the YAMPE, split evenly by employee and employer.

Unlike the Base CPP benefits, the Additional CPP benefits are designed to be fully-funded.

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<sup>5</sup> The YMPE for 2023 is \$66,600 while the YBE is \$3,500. See <https://www.canada.ca/en/revenue-agency/news/newsroom/tax-tips/tax-tips-2022/canada-revenue-agency-announces-maximum-pensionable-earnings-2023.html> and the CPP Act), ss. 18-19.

<sup>6</sup> CPP Act, s. 17.

<sup>7</sup> See CPP Act, Schedule 1.

<sup>8</sup> [31st Actuarial Report, Canada Pension Plan, as at 31 December 2021](#), s. 1.

<sup>9</sup> See <https://open.canada.ca/data/en/dataset/f8ec9eb8-62d1-487b-83ff-4c407b6cb227>.

<sup>10</sup> Manitoba agreed to the changes subsequent to their introduction on June 20, 2016.

# Key features of an Alberta Pension Plan

This section provides information on the anticipated key features of an APP in the event that Alberta proceeds with the withdrawal of Alberta from the CPP. This information includes the level of initial benefits and the contributions needed to support those benefits. In addition, we discuss how potential future changes to benefits and contributions may be implemented. Additional detailed analysis related to this section can be found in the appendices.

## **Level of initial benefits**

The exit of a province to create its own plan providing benefits comparable to the current CPP has been contemplated under the CPP Act. Creating an APP that mirrors the CPP would ensure Albertans receive the same benefits as they had before the establishment of an APP, while not adding additional complexity to the administration of benefits when members also have contributions with the CPP and/or QPP.

Changes to the CPP benefits are uncommon – the 2016 enhancements were the first major change to CPP benefits since its introduction in 1966. Any amendment or enactment that affects the substance of CPP contribution rates or benefits levels, or the operations of the CPP accounts or CPPIB, requires the consent of two-thirds of the provinces with two-thirds of the population of all included provinces.

The fact that future CPP benefits could be changed through a separate process poses a risk that the benefits under an APP could become out-of-sync. One possible solution to ensure continued alignment with CPP benefits is for Alberta to provide a mechanism within the enabling legislation for an APP requiring the Province to consider adopting any changes made to the CPP benefits.

The analysis in this report is based on an APP with identical benefits to the CPP.

While differences in benefits between an APP and the CPP could create administrative complexities, there may be opportunities for Alberta to consider how benefits could be improved to assist in different policy objectives that have been important to Albertans and Canadians in the past and how Alberta's unique culture and associated policy goals could be reflected in design changes. While the QPP has maintained the same level of retirement benefit (i.e., Base benefits of 25% of YMPE plus adopting the same Additional benefits as the CPP), Quebec has adopted minor ancillary benefit differences.

## **How might benefits be changed in the future after the establishment of an APP?**

Based on our analysis, as well as observing how the 2016 enhancement was adopted by the QPP, Alberta could unilaterally amend or change an APP once it has been established without being constrained by the Confederation consensus mechanism outlined in the CPP Act for making amendments to that legislation. How Alberta decides to unilaterally amend or change an APP would need to be outlined in its enabling legislation.

## What would a sustainable APP contribution rate be?

As noted in the History and Features of the CPP section of this report, CPP contribution rates are legislated. The current aggregate Base CPP contribution rate is 9.90% (evenly split between employees and employers). This contribution rate is set by legislation and needs to be confirmed as adequate based on triennial actuarial reviews. The CPP 31 Report confirmed that this rate is adequate in the long run (that is the minimum contribution rate is equal or below the legislated rate). Similarly, the CPP 31 Report confirmed that the First Additional CPP Contribution Rate of 2.00% and the Second Additional Contribution Rate of 8.00% were adequate to fund the Additional CPP benefits.

### Discussion Box 1: Contribution rates

**Pay-as-you-go contribution rate** – the contribution rate needed to balance total incoming contributions each year with the outgoing benefit payments and expenses in that year. This rate will increase with more retirees or fewer contributors. The pay-as-you-go rates do not take into account any assets already accumulated (or level of pre-funding) and are provided as additional information for reference only.

**Minimum contribution rate** – the contribution rate that is expected over the projection period to balance the total incoming contributions plus the required portion of assets and investment income with the outgoing benefit payments and expenses, without a shortfall in any year of the projection period. This rate will remain stable over the projection period. The CPP is funded based on the minimum contribution rate approach.

### Initial contribution rates

As previously noted, the following contribution rate analysis is based on an APP that provides benefits identical to the CPP. Our analysis is based on data and a model that starts with a December 31, 2021 valuation date and utilizes the same funding approach as the CPP, which targets to match the asset-to-expenditure ratios of a Base APP at the end of the 13<sup>th</sup> and 63<sup>rd</sup> years of the projection (and to match at the end of the later of the 53<sup>rd</sup> and 63<sup>rd</sup> years of the projection, or 2088 and 2098 for the Additional APP). This approach is further explained in the section of Appendix C documenting actuarial methods. Note that we have determined the minimum sustainable contribution rates for an APP, whereas the legislated rates may be set above these rates in order to reduce the likelihood of being revised upwards in the future due to unfavourable experience, which is consistent with the CPP approach.

### Base APP

After calibrating our actuarial model to the CPP valuation results<sup>11</sup>, we have estimated the minimum contribution rate needed to sustain the Base benefits under an APP. Although our model projects an APP from the end of 2021, including the calculated asset transfer at that time, we have projected how the initial asset transfer amount will evolve, as the transfer will take place in the future. Under our projection (based on the projection of the future Alberta population, incoming contributions, outgoing benefit payments and expenses), we estimate that approximately 53% of the CPP assets (an estimated \$334 billion) would be transferred to an APP if the asset transfer takes place on January 1, 2027.

In addition, we have estimated pay-as-you-go contribution rates for an APP, which highlights the current difference in Alberta's demographics versus the CPP.

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<sup>11</sup> Details of the model including data, methodology and assumptions used are described in Appendix C. We note that the minimum contribution rate for a Base APP is 5.91% compared to 9.54% for the Base CPP as disclosed in the CPP 31 Report, and lower than the 9.9% legislated contribution rate.

## Discussion Box 2: How dates are used in this report

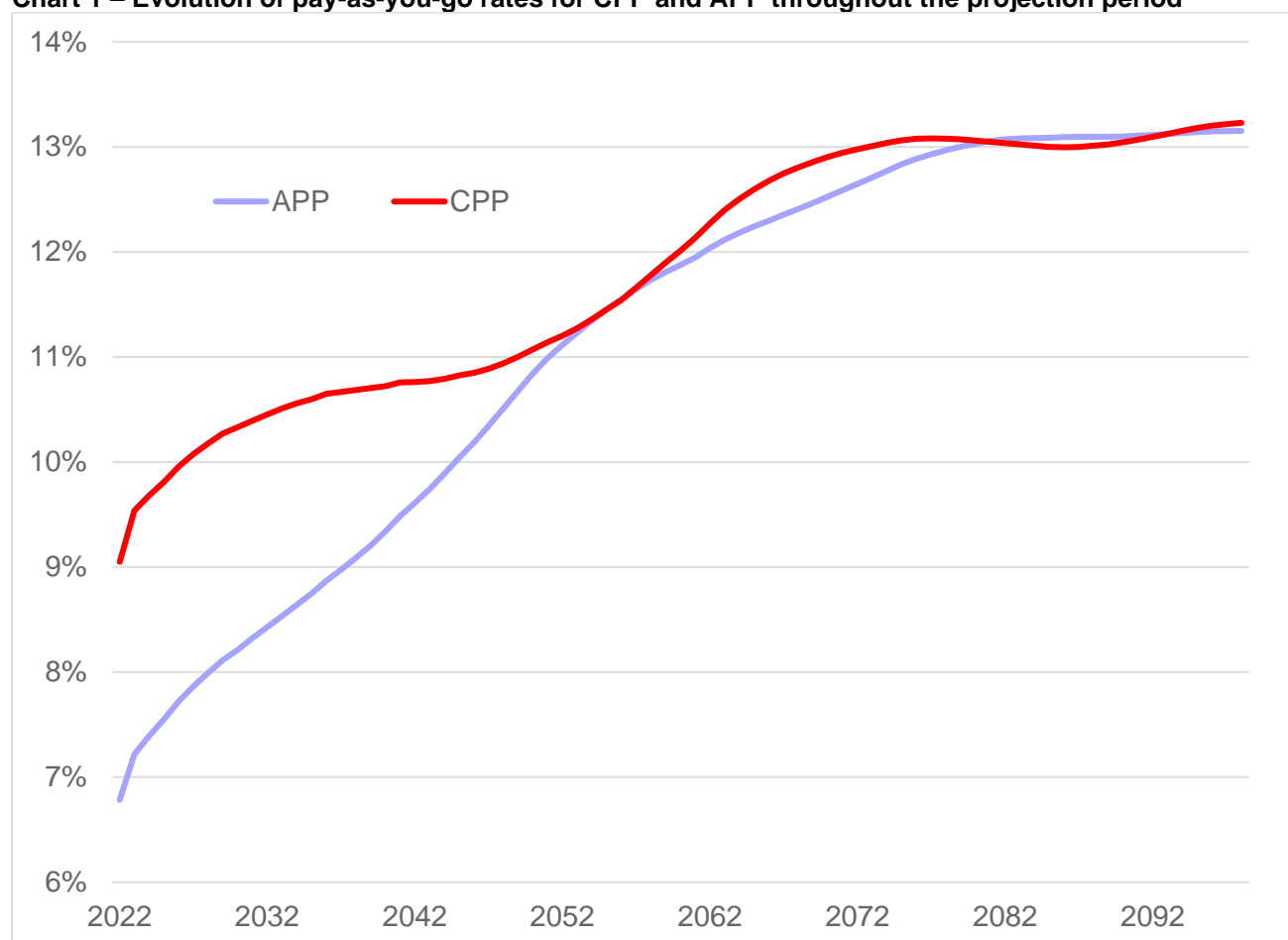
Our model starts its projection from December 31, 2021 (i.e., the same day as the CPP 31 Report's valuation date) and our determination of contribution rates are as of this valuation date. However, since the purpose of the report is to assess a possible future exit from the CPP, figures for the asset transfer amount noted in this report are as of January 1, 2027 unless otherwise noted

**Table 2 – Comparison of contribution rates for Base APP and Base CPP**

	Estimated Base APP	Base CPP (from CPP 31 Report)
<b>Minimum Contribution Rate</b>	5.91%	9.54%
<b>Pay-as-you-go Rate – 2027</b>	7.86%	10.08%
<b>Pay-as-you-go Rate – 2060</b>	11.87%	12.01%
<b>Target A/E Ratio</b>	28.9	8.4

The 3.63% difference in the minimum contribution rate for the Base APP would provide an initial annual savings of over \$5 billion in 2027 in comparison to remaining in the CPP. On an individual basis employees and employers would each have approximate full year savings of up to \$1,425 per employee. This individual savings estimate applies for individuals whose earnings are at or above the estimated 2027 YMPE level; for those with lower incomes, the dollar savings will be proportionately lower.

**Chart 1 – Evolution of pay-as-you-go rates for CPP and APP throughout the projection period**



The Base minimum contribution rate for an APP is significantly lower than the CPP Base minimum contribution rate due in large part to the size of the estimated initial asset transfer (discussed in more detail later in this section). In addition, the current ratio of Alberta contributors to Alberta beneficiaries is higher than that of the ratio of CPP contributors to CPP beneficiaries due to a younger population and historically higher employment. As such, under an APP, we expect that the returns on the initial assets will fund a significant portion of future benefits and, even under a reduced minimum contribution rate, an APP will experience positive net in-flows (i.e., contributions will exceed benefit payments and expenditures) over the short and medium terms, allowing for a quicker accumulation of assets under an APP. However, we observe that, although the pay-as-you-go rate for a Base APP is initially lower than that of the CPP, we expect this rate to catch up with the CPP pay-as-you-go rate based on the assumptions used in this analysis, as the age-dependency ratio in the Alberta population would eventually catch up with the rest of Canada.

We have also estimated the minimum contribution rate for the Base Residual CPP contribution rate if an APP is set up and assets were transferred from the Base CPP. The following table compares the estimated minimum contribution rates for a Base APP, the Base Residual CPP and the Base CPP.

**Table 2a – Comparison of contribution rates for Base APP, Base Residual CPP and Base CPP**

	Estimated Base APP	Estimated Base Residual CPP	Base CPP (from CPP 31 Report)
<b>Minimum Contribution Rate</b>	5.91%	10.36%	9.54%
<b>Pay-as-you-go Rate – 2027</b>	7.86%	10.47%	10.08%
<b>Target A/E Ratio</b>	28.9	5.1	8.4

The CPP funding methodology provides a flexible funding framework where the minimum contribution rate does not vary significantly due to one-time events. Our modelling demonstrates that it permits a trade-off between lower contributions and a lower level of benefit security (i.e., 5.1 years of expenditure coverage vs the current 8.4 years between the Residual CPP and the current CPP). As previously mentioned, it sets the minimum contribution rate such that the asset-to-expenditure ratio is equal in projection years 13 and 63.

### **Additional APP**

The minimum contribution rates needed to sustain an Additional APP are summarized in the table below. Similar to the Additional CPP, the Second Additional Contribution Rate is equal to four times the First Additional Contribution Rate. These contribution rates are based on the projection of Alberta's future population and contributions to, and expenditures from, the Additional APP. Details of the data, methodology and assumptions used are described below and in Appendix C.

**Table 3 – Comparison of Additional APP/CPP minimum contribution rates**

	Estimated Additional APP	Additional CPP from CPP 31 Report
<b>First Additional Minimum Contribution Rate</b>	1.98%	1.97%
<b>Second Additional Minimum Contribution Rate</b>	7.92%	7.88%
<b>Target A/E Ratio</b>	23.6	24.5

Due to the assumptions used in the analysis, over the long run, the Alberta population would be projected to be similar to the CPP population. Based on the funding methodology of the Additional CPP, the Additional APP contribution requirements are similar to those for the Additional CPP.

For the Additional CPP, benefits may potentially be adjusted if the legislated additional contribution rates are insufficient to fully pay future expenditures. Since the First Additional minimum contribution rate and the Second Additional minimum contribution rate are lower than the legislated First and Second Additional CPP contribution rates of 2.00% and 8.00%, the benefits under an Additional APP are considered sustainable over the long term.

### **Long term nature of the projection**

Our model projects the revenue and expenditures of both the Base and Additional benefits under the CPP and an APP over at least 75 years. Both the length of the projection period and the number of assumptions used create a significant amount of potential uncertainty, and actual experience will likely not evolve in accordance with the projections, in which case, the actual contribution requirements may deviate (significantly) from those provided in this report. We have included sensitivity analysis to measure the impact of various changes to the assumptions on the projected minimum contribution rates to illustrate the potential variance in the minimum contribution requirements.

We note that the rates provided in this report are the minimum contribution requirements based on our long-term projections starting in 2022. Similar to the CPP, Alberta could include a buffer when determining the legislated contribution rates for an APP. This would take into account the uncertainty of the results and reduce the likelihood of having to increase contribution rates in the future.

The minimum contribution rates determined in this report for an APP are based on the same assumptions used in the CPP 31 Report – in essence, the assumption is that the Alberta long term economic conditions and population growth will be the same as that for the rest of Canada (less Québec).

### **Uncertainty of results**

The key reasons that a Base APP may result in lower contribution requirements than the Base CPP are the level of estimated initial asset transfer amount based on the provisions under the CPP Act, Alberta's younger population compared to the rest of Canada's, and a relatively higher level of employment and higher average wages than the rest of Canada when the CPP was last analysed.

There are risks to achieving and maintaining a lower cost plan for Albertans versus the CPP, which include:

- The calculation of the initial asset transfer amount from the CPP to an APP;
- How Alberta's economic and demographic profile changes relative to the rest of Canada's over time;
- How differences in an APP asset return versus the CPP will impact contributions and benefit levels over time.

### **The calculation of the initial asset transfer amount from the CPP to an APP**

A literal reading of the legislation (Section 113(2) of the CPP Act) as written implies that investment returns should only be applied to CPP contributions, and not to benefit payments and CPP administration costs. Applying this literal reading of the CPP Act would result in an unrealistically large Base asset transfer figure of \$637 billion as of December 31, 2021 (117% of Base CPP assets as of that date), which our model projects to grow to approximately \$747 billion (118% of Base CPP assets) as of January 1, 2027. An alternate and reasonable interpretation is to apply investment returns to the net cash flows of contributions less benefit payments and CPP administration costs. This alternate interpretation has been used for the purposes of this report.

Appendix B provides details on the calculation (including the data used, additional analysis and methodology) of the amount and the process for transferring assets from the CPP to an APP.

Based on our review of the requirements under the CPP Act, we have calculated the initial asset transfer amount from the CPP to an APP using the following method:

- (a) Total of all CPP contributions, up to effective date of split, in respect of employment (and self-employment) in Alberta  
PLUS
- (b) Net investment returns, up to effective date of split, attributable to the contributions in (a) less the amounts in (c) and (d)  
MINUS
- (c) Any benefit payments paid from the CPP that would not have been payable if an APP existed  
MINUS
- (d) A proportion of CPP administration costs, up to effective date of split in proportion to the contributions made by Albertans versus total CPP contributions.

For the purposes of this calculation, we have considered net investment returns under (b) to be the investment returns earned on the net contributions (contributions less benefits and investment expenses).<sup>12</sup>

This methodology should produce the same outcome as if each province had run its own individual program account within the CPP since 1966 and earned the same annual returns (expressed as a percentage of the asset base at the beginning of each year) as the CPP as a whole and shared in the costs as described, while being able to borrow from the other provinces to cover any benefit payments in excess of contributions.

Using publicly available sources, we obtained historical contributions and benefit payment information attributable to Alberta, as well as CPP investment returns and administration costs. However, there are certain deficiencies we identified in the Alberta contributions and disbursements including:

- (i) The CPP Base benefit payments made to persons outside of Canada are only available on a total basis and have not been attributed to the province where the individuals made the contributions. As such, we have increased the Base benefit payments attributable to Alberta by these outside of Canada payments in proportion to Alberta's share of the CPP population. Additional CPP benefit payments made to persons outside of Canada are assumed not to be material for the purposes of this analysis.

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<sup>12</sup> The common definition of net investment returns is gross returns less investment expenses.

- (ii) It is unclear whether the CPP contributions attributed to Alberta in the publicly available information are based on CPP contributions deducted from employment in Alberta or CPP contributions made by taxpayers in Alberta. As such, further refinements may be needed for an actual final calculation to capture contributions with respect to contributions made by residents from other provinces who were employed in Alberta when they made CPP contributions.
- (iii) Similarly, we believe that the benefit payments attributed to Alberta in the publicly available information are based on CPP payments made to Alberta residents. Additional refinements may be needed for an actual final calculation to reflect the payments to individuals who migrated to or from Alberta following retirement or who had a period of employment in Alberta.

The estimated Base asset transfer amount using historical cash flow information and adjusted based on (i) above is \$277 billion as at December 31, 2021. This figure represents roughly 51% of the Base CPP assets as at that date. Based on the projected cash flow and assumptions used in our APP model, we have extrapolated that the Base asset transfer amount as at January 1, 2027 – a potential transfer date for an APP – would be \$334 billion or 53% of the Base CPP assets.

The estimated Additional asset transfer amount using historical cash flow information is \$2 billion as at December 31, 2021. This figure represents roughly 16% of the Additional CPP assets as at that date. Based on the projected cash flow and assumptions used in our APP model, we have extrapolated that the Additional asset transfer amount as at January 1, 2027 – a potential transfer date for an APP – would be \$16 billion or 17% of the Additional CPP assets.

In order to account for the potential data deficiencies indicated above on the contributions and benefits, based on our analysis of inter-provincial migration statistics publicly available, we have calculated the Base APP minimum contribution rate using a lower and higher estimate of the initial asset transfer amount (\$), summarized in the table below.

**Table 4 – Minimum Base contribution rate based on alternate estimated initial Base asset transfer amounts**

	Lower estimate	Best estimate	Higher estimate
Estimated initial asset transfer amount at December 31, 2021	\$214 billion	\$277 billion	\$302 billion
Estimated initial asset transfer amount at January 1, 2027	\$262 billion	\$334 billion	\$362 billion
Minimum Contribution Rate	6.90%	5.91%	5.53%
Target A/E Ratio	23.2	28.9	31.1

More information on the derivation of the higher and lower estimates can be found in the asset transfer section of Appendix B.

Because the asset transfer amount relating to the Additional CPP is significantly smaller, similar analysis on a higher and lower estimate has not been performed with respect to the asset transfer from the Additional CPP as it would not affect the contribution requirements materially.



## How Alberta's economic and demographic profile changes relative to the rest of Canada over time

In order to assess these risks, we have used our actuarial model replicating the CPP valuation to calculate the minimum contribution requirements based on alternate scenarios for a Base APP and an Additional APP. Some of the factors that describe how the future population will develop are related. For example, if Alberta's future economic growth is higher than the best estimate basis, it may lead to higher real wage increases for the population, higher net migration into Alberta, and then to higher fertility rates. Conversely, lower economic growth may lead to these factors resulting in a smaller/lower paid population in the future.

Given the uncertainty in forecasting such a long period, in addition to the best estimate assumptions, we have prepared results using two alternative scenarios that highlight the sensitivity of the results to differences in assumptions regarding future outlook. These alternative projection sets encompass assumptions that are generally more optimistic and more pessimistic than those of the Best Estimate projections. These alternative scenarios focus more on the impact of economic growth and employment.

The main population and APP demographic and financial results of the three projection sets are presented below. As expected, the outlook for APP finances is closely linked to the size and age distribution of the general population in Alberta as well as other factors such as yield on investments.

**Table 5 – Summary results – Alternate population and economic growth scenarios**

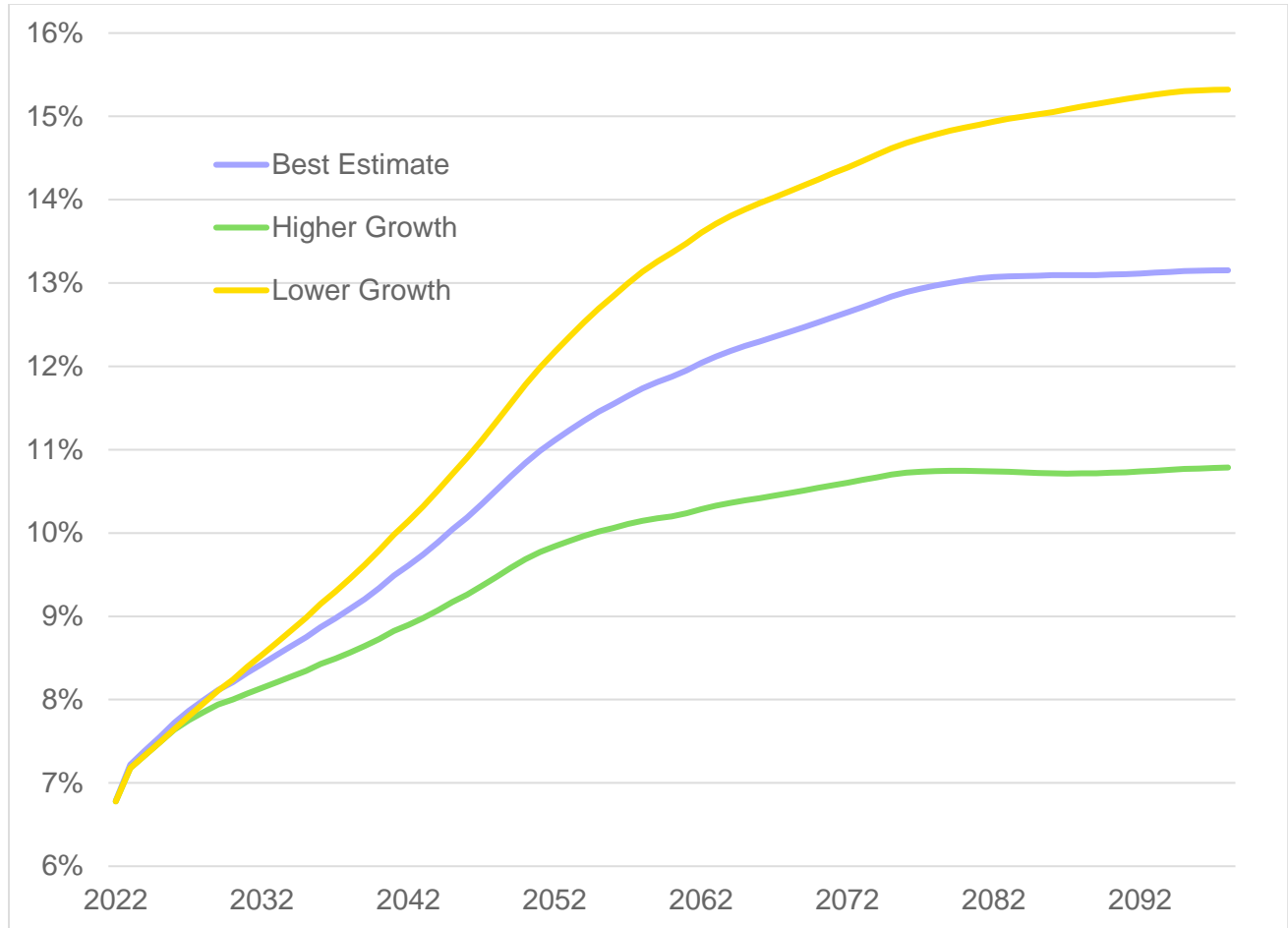
	<b>Lower Growth</b>	<b>Best Estimate</b>	<b>Higher Growth</b>
<b>Base APP Minimum Contribution Rate</b>	5.58%	5.91%	6.19%
<b>Additional APP First Additional Minimum Contribution Rate</b>	1.94%	1.98%	2.03%
<b>Additional APP Second Additional Minimum Contribution Rate</b>	7.76%	7.92%	8.12%
<b>Target A/E Ratio</b>	22.5	23.6	26.2

An explanation for the behaviour of the Base minimum contribution rate may be in order as Table 5 provides results which may seem counter-intuitive. Chart 2 below shows the pay-as-you-go contribution rates for the three scenarios. In it, as expected, higher growth results in a lower long term pay-as-you-go rate. However, because of the funding methodology used to determine the minimum contribution requirements (which replicates the methodology used for the CPP), the projected assets (and the future returns on those assets) in the year in which the target asset-to-expenditure ratio is established has a more significant impact on the minimum contribution rate in the lower growth scenario, resulting in a lower minimum contribution rate.

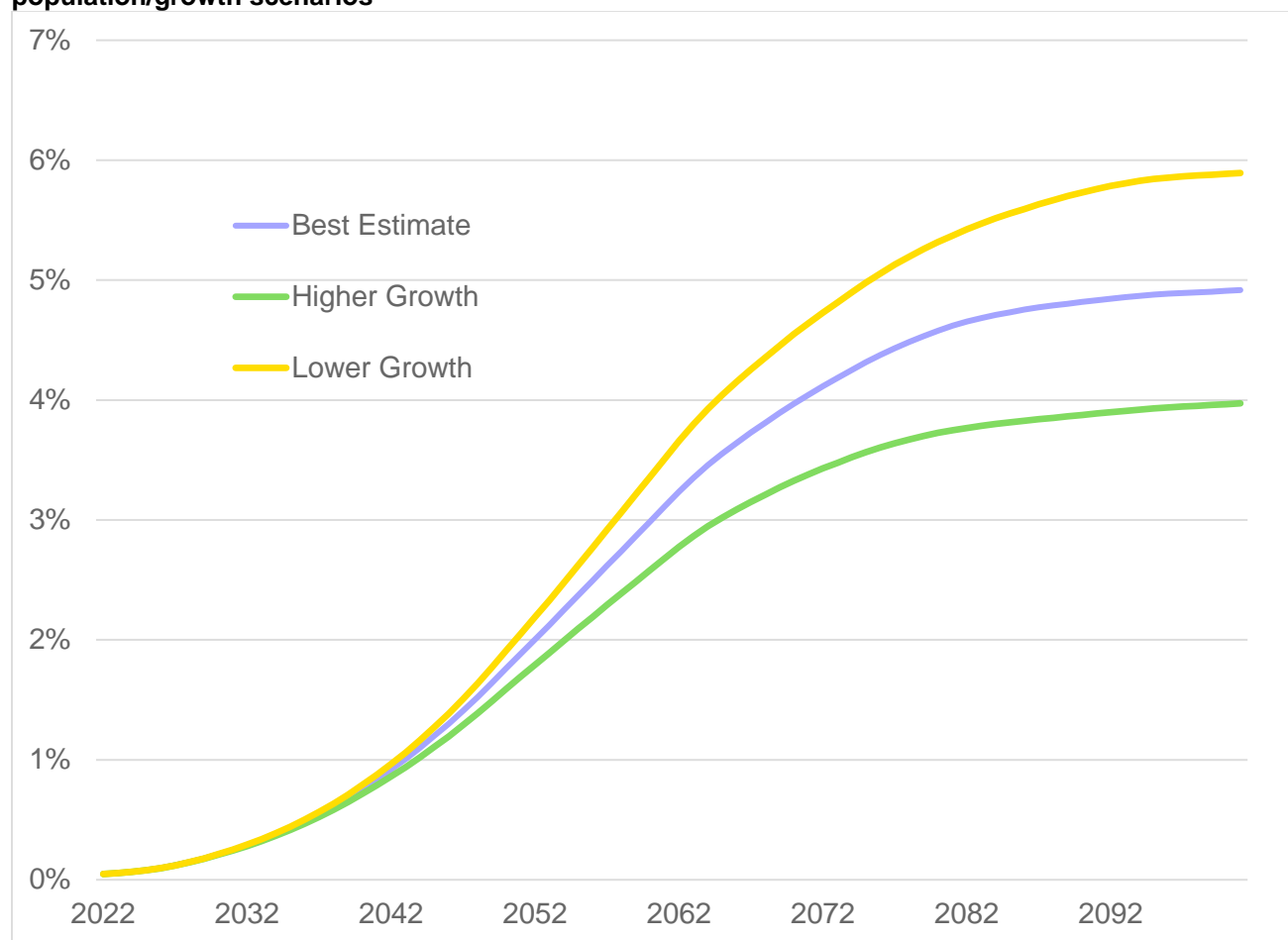
The results for Additional APP minimum contribution rates may benefit from explanation, as the higher growth scenario produces the highest minimum contribution rates of the three scenarios. The key reason for this is the valuation method used by the CPP which forces the asset-to-expenditure ratio in 2088 and 2098 to be equal and with the highest expenditures projected, more assets need to be accumulated and thus more contributions are required. Directionally, these results are consistent with the sensitivity results shown for the Additional CPP in the CPP 31 Report.

Note that we have assumed the same asset return for each of the three scenarios based on a highly diversified investment strategy that replicates the CPPIB approach. We observe that if an APP investment framework includes a mandate to support Alberta economic growth (as the QPP does), it could have resulted in different assumed asset returns for the three scenarios.

**Chart 2 – Comparison of the Base APP pay-as-you-go rates based on different population/growth scenarios**



**Chart 3 – Comparison of the Additional APP pay-as-you-go rates (first rate) based on different population/growth scenarios**



The Higher Growth scenario represents a future with higher economic growth and employment levels while the Lower Growth scenario represents a smaller population and fewer workers earning less in real terms when compared to the Best Estimate scenario. A summary of the main assumptions for the three projection scenarios are included in Appendix C.

### **How differences in an APP asset return versus the CPP will impact contributions and benefit levels over time**

Under the CPP's funding structure, Base benefits are not meant to be fully pre-funded but returns on the pre-funding are needed to maintain a stable minimum contribution rate. In effect, investment returns are needed in order to meet the benefit promises at the current contribution rate. Alberta could change the approach to funding benefits by adjusting the level of prefunding. A discussion of the appropriate funding approach could be considered in the implementation of an APP. However, investment returns will impact the sustainable minimum contribution rate. The following table shows the impact of variance in the investment returns on the estimated minimum contribution rate:

**Table 6a – Sensitivity of contribution rates to future real investment return**

	Assumed Annual Future Real Rate of Return	Minimum Contribution Rate (%)	Change Relative to the Best Estimate (%)
<b>Base APP</b>	Best Estimate (4.02% p.a.)	5.91	--
	Lower Return (-1.60% p.a.) <sup>13</sup>	10.75	+4.84
	Higher Return (+1.60% p.a.)	1.65	-4.26
<b>First/Second Additional APP</b>	Best Estimate (3.62% p.a.)	1.98/7.92	--
	Lower Return (-1.20% p.a.)	2.84/11.36	+0.86/+3.44
	Higher Return (+1.20% p.a.)	1.40/5.60	-0.58/-2.32

**Sensitivity of the contribution rates to assumptions used**

In addition, we have provided the sensitivity of the minimum contribution rates for a Base APP and an Additional APP for the individual assumptions under the Best Estimate scenario in Appendix C. Details of the assumptions used for the sensitivity scenarios and the resulting impact on the contribution requirements are included in Appendix C of this report.

**Contribution rates under potential adverse scenarios**

We are also providing results based on the same potential adverse scenarios covered in the CPP 31 Report to illustrate potential downside risks due to potential or emerging trends. These three potential risks have also been modelled to assess the impact on the Base APP.

For the purposes of this report, we have used the same assumptions for the adverse scenarios as those used in the CPP 31 Report although the impact of these scenarios on Alberta's economy may be quite different and may warrant different assumptions.

**Table 6b – Sensitivity of contribution rates to potential adverse scenarios**

	Minimum Contribution Rate under Base APP	Difference
<b>Best Estimate Assumptions</b>	5.91%	
<b>Change in earners and earnings distribution</b>	5.77%	-0.14%
<b>Stagflation</b>	5.71%	-0.20%
<b>Green Economy Transition Scenario 1</b>	5.80%	-0.11%
<b>Green Economy Transition Scenario 2</b>	5.81%	-0.10%
<b>Green Economy Transition Scenario 3</b>	6.32%	0.41%

For all of the potential adverse scenarios, except the Green Economy Transition Scenario 3, the impact on the Base APP is directionally different than for the CPP. That is, for all but that scenario, the contribution requirements for the Base APP will be lower in a smaller, lower growth Alberta economy. This suggests that what may be an adverse scenario for the CPP may not necessarily be an adverse scenario for the APP, as the size of the asset transfer relative to initial Base APP expenditure offers some potential mitigation of future adverse outcomes; however, we also note that the pay-as-you-go rates (which by definition ignore the asset transfer) would be higher in all of the scenarios for the Base APP.

Further details of assumptions and results of these analysis have been included in Appendix C.

<sup>13</sup> The values in parentheses represent the annual real return for the Best Estimate, and the *difference* in return from the Best Estimate level for the Lower/Higher Return scenarios. These differences are consistent with the differences used in the high / low cost sensitivities provided in Table 114 of the CPP 31 Report.

## **Actuarial methodology notes**

### **Our approach**

Forming the basis of the analysis, our model reproduces the projected minimum contribution rates of the Base CPP and Additional CPP on both a pay-as-you go basis (contributions pay for benefits in the year subject to a small reserve), and the CPP funding basis using publicly available demographic information.

Details of our reproduction of the Base CPP and Additional CPP calculations compared to the results disclosed in the CPP 31 Report are provided in Appendix C.

We then used publicly available Alberta demographic information to project the Alberta benefit payments and estimate the Alberta minimum contribution rate of a Base APP and an Additional APP on both a pay-as-you-go basis and the CPP funding basis. The minimum contribution rates shown are based on the same assumptions for future projection as those used in the CPP 31 Report.

All minimum required contribution calculations in this report are prepared as at December 31, 2021 to be comparable with those disclosed in the CPP 31 Report.

### **Subsequent event**

The COVID-19 pandemic and increased worldwide uncertainty have impacted the global and Canadian economies and populations. These events have had an impact on market returns, inflation and unemployment rates on the economic front, immigration and mortality on the population front.

Whether a standalone APP will be impacted more or less significantly than the CPP will depend on whether these events impact the Albertan population and economy more or less significantly than it does the rest of Canada.

The projections in this report have not taken into account the potential future impacts of these events.

# Process for withdrawing from the CPP

Under the CPP Act, a province can withdraw from the CPP if it meets the requirements outlined below. The other provinces are not legally entitled to a formal role in the withdrawal process or a veto over the withdrawal. In order to meet the prescribed withdrawal requirements, the replacing provincial plan must:

1. Accept contributions beginning in the third year following the year in which the province gives notice of its intention to withdraw from the CPP;
2. Provide comparable benefits to the CPP; and
3. Assume all obligations and liabilities accrued and accruing in the CPP for members residing in the province up to the beginning of the third year following the year in which the province gives notice.

Note that the CPP Act requires the enacting legislation be in place at least one year before the effective date of an APP.

## **Accept contributions beginning in the third year following the year of notice**

For illustrative purposes, we use the example of the Province providing notification of withdrawal on January 1, 2024 and being able to meet all of the above conditions. This withdrawal mechanism would then mean that on January 1, 2027, the beginning of the third year following the year notice is provided, an APP would come into effect for residents of Alberta (the APP Effective Date). On the APP Effective Date, an APP would then assume responsibility for the payment of full benefits that have been earned under the CPP for its residents (as well as being responsible for the portion of benefits earned by contributors that were employed in Alberta when they made contributions to the CPP prior to that date), and contributions for Alberta-based employment would be made to an APP instead of the CPP. Note, we have been provided no timeline or indication that the province of Alberta is pursuing this option. The notification date chosen was merely for illustration purposes.

## **Provide comparable benefits to the CPP**

As noted in the above withdrawal procedure, a provincial pension plan must provide comparable – but not necessarily identical – benefits to those provided by the CPP, including the Additional CPP benefits. As a result, Alberta would have some flexibility in the design of an APP's benefits, including flexibility to provide benefits greater than the CPP. However, as has been previously noted, our analysis is based on Alberta providing benefits identical to those under the CPP.

## **Assumption of obligations and liabilities**

In following the CPP Act withdrawal process, Alberta would be required to assume responsibility for paying the benefits associated with all contributions and benefits with respect to Alberta beneficiaries under the CPP. Thereafter, an APP would be responsible for all the benefits that are attributable to contributions made before the APP Effective Date in respect of employment in Alberta or in respect of self-employed earnings of persons resident in Alberta along with the benefits earned (for contributions made) after the APP Effective Date.

In conjunction with the assumption of all obligations and liabilities accrued and accruing in the CPP for members making contributions in respect of Alberta employment, there would be a corresponding asset transfer between the CPP and an APP. With respect to the Base APP, this asset transfer is estimated at \$334 billion as of January 1, 2027 (approximately 53% of the estimated Base CPP assets available on that date). With respect to the Additional APP, this asset transfer is estimated at \$16 billion as of January 1, 2027 (approximately 17% of the estimated Additional CPP assets available on that date). These estimated asset transfer amounts represent the cumulative excess contributions made by Alberta employees and employers over the benefit payments made to Albertan recipients along with investment returns less a proportionate share of expenses with respect to Base CPP and Additional CPP respectively.

The CPP Act states that the CPPIB shall transfer Alberta provincial bonds and Canada federal bonds and the balance in a manner that may be prescribed. There appears to be some latitude in terms of how the asset transfer will actually take place, as in-kind transfers and even potential shares of illiquid assets may be difficult to transfer. The actual form of the transfer will need to be negotiated and agreed on.

Details of the calculation of the asset transfer amount, the data and methodology and additional considerations are set out in Appendix B.

In the three years between notification and effective date, a number of activities need to take place to ensure a smooth transition from the CPP to an APP. The following section discusses the activities that need to be considered for a successful transition to an APP.

# Transition considerations

On the basis of providing notification on a January 1<sup>st</sup>, the Province has three years from when it notifies the federal government of its intent to withdraw from the CPP in order to implement this seamless transition. It is critical that all the pieces needed to deliver an APP are identified and implemented in advance of this deadline. This does not preclude the Alberta government from starting implementation before providing notice.

To support a seamless transition, the key activities that need to be considered, the level of risk of delivering within three years and the potential risk mitigations are presented in the table below.

**Table 7 – Transition activities**

Key Activity	Level of risk in three year delivery	Risk mitigations
<b>Develop framework for implementing and delivering an APP (plan design, investment management structure, governance, service providers)</b>	Low	<ul style="list-style-type: none"> <li>- Priority of Province to develop</li> <li>- Develop governance structure and project plan</li> </ul>
<b>Draft legislation, negotiate CPP/QPP agreements for coordinating benefits, and international social security agreements</b>	Legislation – Low  CPP/QPP agreements – Medium  International agreements – High	<ul style="list-style-type: none"> <li>- Legislation needs appropriate legal support</li> <li>- Gauge level of Québec and federal cooperation</li> <li>- Review options for international agreements and prioritize by largest impact</li> </ul>
<b>Setup and implement service providers</b>	Medium to High – depending on service provider structure	<ul style="list-style-type: none"> <li>- Understand timing for contribution and benefit administration implementation</li> <li>- Understand restrictions of timing for existing providers</li> <li>- Extend three year period by either               <ul style="list-style-type: none"> <li>o Notifying withdrawal from CPP once service providers are partially implemented, or</li> <li>o Phased transition from current providers</li> </ul> </li> </ul>
<b>Communicate with Albertans and employers</b>	Low to Medium	<ul style="list-style-type: none"> <li>- Understand key messages, challenges to transition, and develop plan to engage stakeholders</li> </ul>

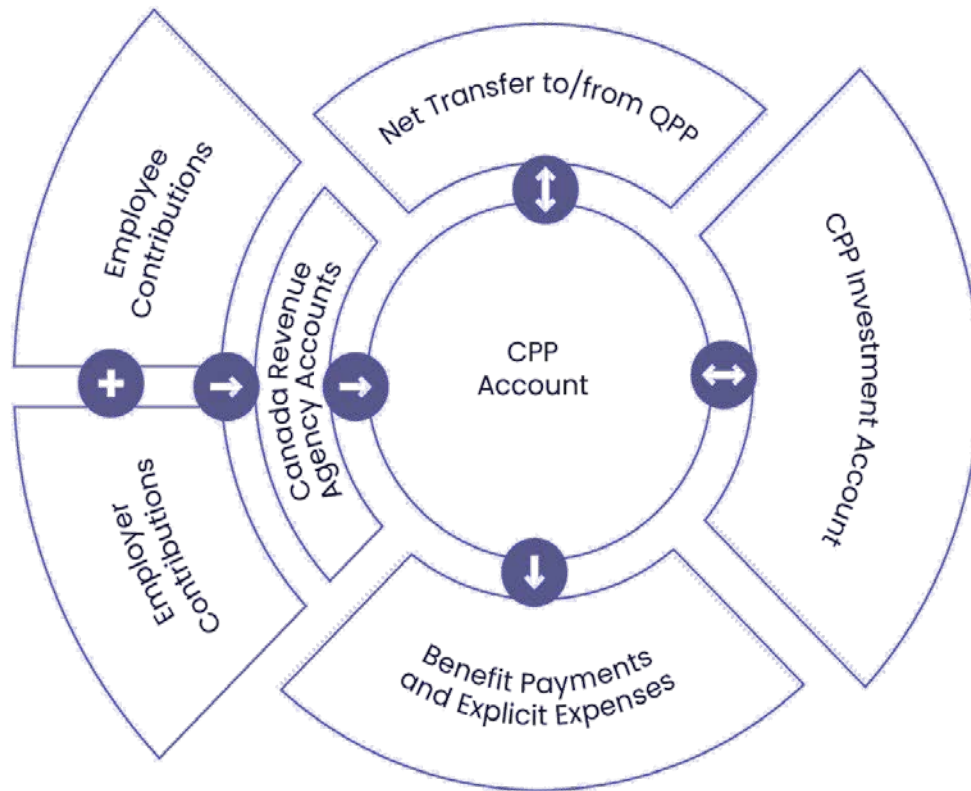
These key activities will be discussed in more detail below.



## Framework for implementing and delivering an APP

It is important to understand the structure, legislation, processes, and service providers that need to be in place. The diagram below outlines how money flows through the system for the CPP. While an APP may have some differences in processes and service providers, a structure needs to be in place to support the same flows.

**Image 1 – Requirements for managing an APP’s cash flows**



### Plan structure

The CPP's contribution rates, benefit levels, and investment management structure, are governed by the provinces through legislation enacted by the federal government. Agreement of two-thirds of the provinces of Canada with two-thirds of the population of all included provinces is required to make any changes to these items under the CPP.

For an APP, the Alberta Legislative Assembly would be responsible for enacting an APP and would have authority over future amendments. This will be analogous to the QPP, where the Québec legislative assembly has enacted the QPP and is solely responsible for plan design, benefit levels and contribution rates. The QPP includes provisions mandating triennial actuarial reviews and a public consultation on the state of the QPP every six years, to be conducted by the competent committee of the legislature.

## **Enacting legislation**

The enacting legislation would contain the legislated contributions rates for a Base APP and an Additional APP, as well as the associated benefit levels, and the investment management structure. It could also include the model for ongoing oversight, the creation of any new organizations required to administer an APP, selection of any external service providers and the framework for making future decisions on contribution and benefit levels.

## **Ongoing oversight**

Since the Province would be responsible for an APP, there are some different structures for oversight that could be considered, including:

- **Full Government Oversight** – the government would be responsible for plan design, the framework for delivering an APP, and the ongoing administration. It would make decisions relating to contribution rates, benefit levels, investment structure (which could still be arms length), and the framework to collect contributions and make benefit payments. In addition, it would be responsible for monitoring service providers, investment returns, and the ongoing administration of contributions and benefit payments. The QPP operates under this sort of model.
- **Mixed Government and Board Oversight** – the government would be responsible for plan design and developing the framework for delivering an APP. A separate board of directors would be responsible for the ongoing administration, which would include monitoring service providers, investment returns and the ongoing administration of contributions and benefit payments. The legislation would provide the process for selecting the board of directors and their mandate.

## **Changes to future benefit or contribution levels**

For the purposes of this report, we have assumed that an APP would provide the same benefits as the current Base CPP and Additional CPP. However, there is the potential to make future changes to benefits and/or contribution levels. Future changes may improve or reduce benefits or contributions. To ensure that changes to benefits and their potential impact on future contribution requirements are not subject to constant re-adjustment, the Province may consider building into the legislation a process for public consultation or a referendum to approve major changes to benefit levels, although any such limitations would be subject to the principle that the legislature may not bind a future legislature. It would also be expected that a triennial actuarial review would be a part of the APP enabling legislation and this may result in contribution rate or benefit changes.

## **Other legislation, CPP/QPP agreements, and international social security agreements**

### **Other legislation**

In addition to the enacting legislation, there are a number of pieces of legislation, including long-term disability, workers' compensation, and income support that include provisions for means testing/benefit adjustments that make reference to CPP. This set of legislation would need to be adjusted to account for an APP as well. While beyond the scope of this analysis, the enactment of an APP would also cause other provinces as well as the federal government to review their legislation to ensure coordination.

We believe that the amendments to other legislation would be considered technical and would not affect the substantive operation of such other legislation or affect the amount of or security of benefits payable to recipients of these programs.

## **CPP/QPP agreements**

The CPP and QPP have an agreement in place to ensure that members who have made contributions under both the CPP and QPP only receive one combined pension when they retire. This agreement describes the rules in place to determine whether the CPP or QPP pays the benefit, a process for transferring money between the two plans as needed, and agreements to share data between the two plans for calculating/administering the payments.

To ensure that Albertans who participate in the CPP and/or QPP are able to receive one pension, an agreement between a new APP and both the CPP and the QPP would have to be negotiated.

## **International social security agreements**

The CPP and QPP have a number of international social security agreements with other countries. Canada has 59 such agreements,<sup>14</sup> whereas Québec has 39.<sup>15</sup>

These agreements provide for two main purposes:

1. They prevent a member from having to contribute to both the CPP (or QPP) and the international social security program while they are working internationally, and
2. They account for the benefits earned under the CPP (or QPP) and international social security in totality, which avoids potential lost benefits for members during this period.

Without an Alberta international Social Security Agreement (SSA) with a given foreign jurisdiction, Alberta would have no control over the application of the social security legislation of that foreign jurisdiction, and members of an APP could lose benefits they would otherwise be entitled to had they remained in Alberta. The onus would be on Alberta to sign replacement agreements with these other jurisdictions in order to provide benefits to Albertans in respect of service under an APP.

## **Service provider setup and implementation**

To ensure a smooth transition to an APP, the service providers that are needed to support the ongoing operation of an APP would need to be identified and implemented in advance of the first payments being made on the effective date of an APP. The following section titled “Delivering an APP” provides details on the service providers that would be needed, along with the options available, the cost of implementation and the ongoing costs.

The service providers discussed are contribution remittance management providers, benefits administrators, investment managers, actuaries, and auditors.

## **Communication with Albertans and employers**

Transparent communication is key to a successful transition. It will be important that Albertans understand the provisions of an APP, how it would be managed, and whom to contact about benefits (starting pensions, reporting deaths, asking questions).

Similar to the above, the Province would need to communicate with employers of Alberta-based employees, not just in Alberta, but across the country. Employers would need to know the contribution levels for an APP, how contributions are collected, where employees can get information, and how they would be impacted by international social security agreements.

Developing a strong communication plan that anticipates the needs and questions that Albertans and employers will have is critical to a successful transition.

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<sup>14</sup> <https://www.canada.ca/en/revenue-agency/services/tax/canada-pension-plan-cpp-employment-insurance-ei-rulings/international-social-security-agreements-canada-pension-plan/what-purpose-international-social-security-agreements.html>.

<sup>15</sup> [https://www.rmq.gouv.qc.ca/en/programmes/regime\\_rentes/ententes\\_internationales/Pages/ententes\\_internationales.aspx](https://www.rmq.gouv.qc.ca/en/programmes/regime_rentes/ententes_internationales/Pages/ententes_internationales.aspx).

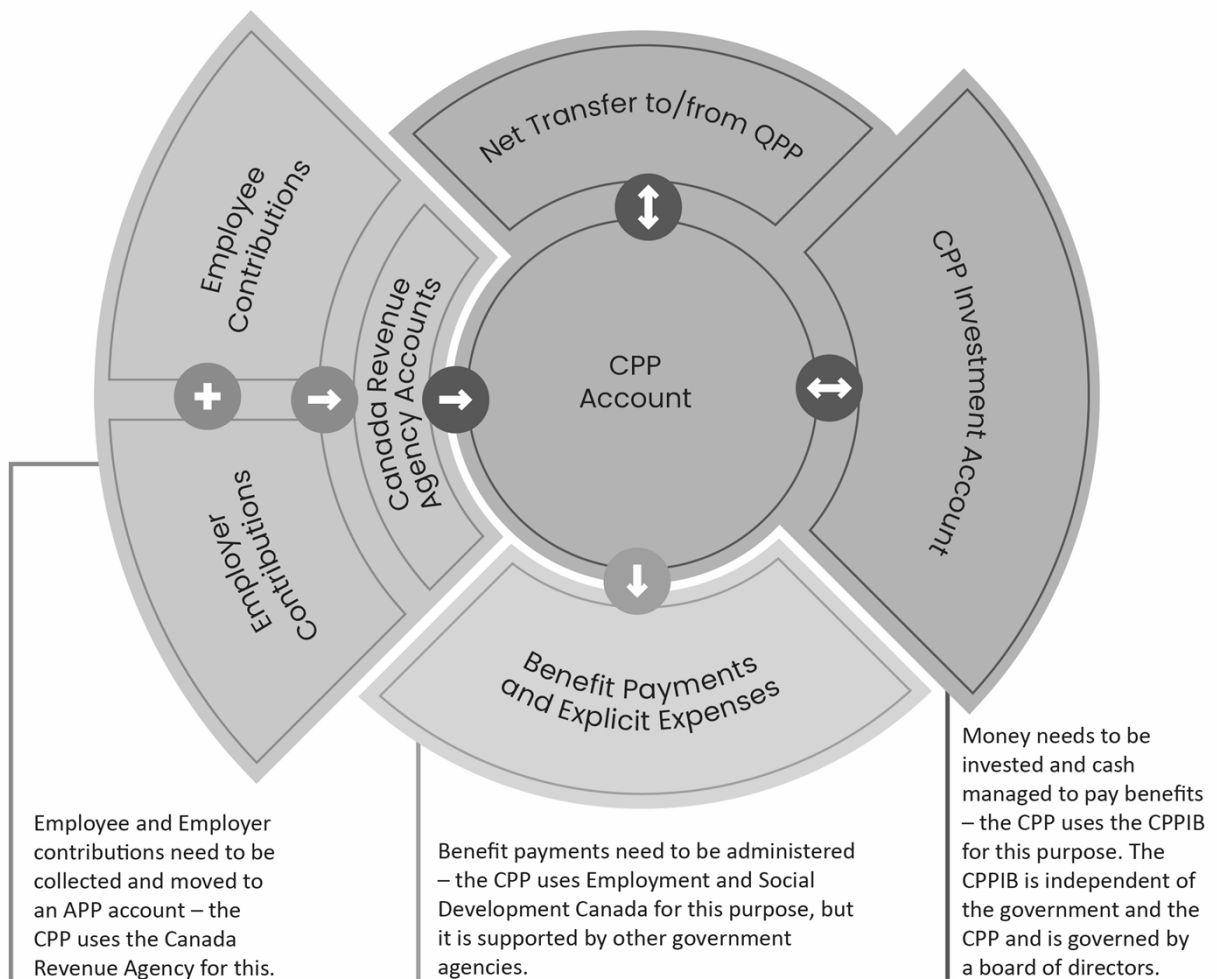
# Delivering an APP

As discussed in the prior section, in order to ensure a smooth transition, a number of factors need to be considered, including the service providers that will be needed to support an APP. This section identifies the key service providers that would be needed to deliver an APP, along with possible options and costs of implementation and ongoing costs.

## Framework for implementing and delivering an APP

The diagram from the prior section showing how money flows through the system for CPP is shown again below, and has been supplemented with commentary on the service providers that would be required to support the system.

**Image 2 – Requirements for managing an APP’s cash flows**



In addition to the services noted in the above graphic, the CPP also receives:

- actuarial services from the Office of the Chief Actuary who advises on the design, funding and administration of the CPP and is responsible for the content and actuarial opinions in its reports, and
- audit services – these services include those performed by the Auditor General of Canada and by independent auditors (in the case of the audit of the CPPIB).

We have provided additional analysis below on the different service providers that could be used to deliver an APP, with the options mainly broken down into the following categories:

1. Utilize existing CPP providers – this would require service agreements and cooperation from the federal government;
2. Utilize existing Government of Alberta resources such as the Tax and Revenue Administration Division of ATBF (TRA) and existing Alberta service providers like Alberta Pensions Services Corporation (APSC) and/or Alberta Investment Management Corporation (AIMCo) – this could require changes to their mandates, systems, staffing and structure;
3. Create new Alberta public sector/independent service providers specifically for an APP; or
4. Utilize private sector service providers.

### **Contribution management**

Employees and employers as well as self-employed persons will make contributions to an APP. These contributions will need to be remitted, received and directed to the appropriate APP account to be used for benefit payments or investing. Employers and self-employed people currently submit payroll and income taxes directly to CRA, including employee and employer contributions to the CPP. A process for collecting APP contributions would need to be developed.

Given the existing structure in place to collect taxes, we have only considered two options for administering the withholding, remittance, enforcement and collection of contributions to an APP, Option 1: CRA administers APP contributions or Option 2: TRA administers APP contributions. Based on our analysis, setting up a new Alberta contribution management organization or engaging private sector service providers were not feasible options and have not been considered.

### **Option 1: CRA administers APP contributions**

Personal income taxes on Albertans are governed by the Alberta Personal Income Tax Act (APITA) and are collected for the Government of Alberta by the CRA under a tax collection agreement between the Government of Alberta and the Government of Canada (the Alberta Tax Collection Agreement). The administration of contribution collection for an APP through the CRA is arguably a natural extension of the services the Government of Canada is already providing to the Government of Alberta under the Alberta Tax Collection Agreement. The current Alberta Tax Collection Agreement does not contemplate an APP; consideration could be given to whether the existing Alberta Tax Collection Agreement could be extended to include an APP or an agreement substantially similar to the existing agreement could be negotiated with the Government of Canada.

The benefit to having the CRA administer an APP is that the current employer source deduction system under the *Income Tax Act* (Canada) (the Federal ITA) identifies employers (through payroll numbers) and employees (through social insurance numbers) and all relevant information to the computation and collection of an APP is reported in the prescribed forms under the Federal ITA, including the T4 – Statement of Remuneration Paid and T4 Summary (the T4 Reporting) that are required to be provided on an annual basis to the CRA.

The T4 Reporting currently breaks down several forms of taxes, benefits and programs specific to certain items including, for example, QPP contributions that are required in the Province of Québec. While the Province of Québec collects QPP contributions directly, the information is broken down and made available on the T4 Reporting requirements.

The costs associated with the administration by the CRA of an APP would likely include an administrative fee, which is also imposed under the Alberta Tax Collection Agreement with respect to the taxes covered by that agreement. However, there may be cost savings to the Government of Alberta and employers of having the CRA administer an APP as it would be an extension to the current source deduction system, including because the current system would not require employers to set up additional payments directly to the Government of Alberta for an APP and the identification system for taxpayers is established under the federal system. In this regard, the identification of persons on whose behalf APP contributions should be made is directly tied to the existing tax administration system in place in Alberta through the CRA and the federal tax identification numbers (whether employer or individual) and would not require additional enforcement or investigation by the Government of Alberta.

## **Option 2: TRA administers APP contributions**

Currently, the ATBF is responsible for the administration of tax and revenue programs in Alberta. The TRA is responsible for tax and revenue collection and administration.

The TRA collects Alberta corporate income tax directly from corporations doing business in Alberta under the *Alberta Corporate Tax Act* and collects other types of Alberta taxes including, for example, fuel and tobacco taxes.

The TRA does not currently have a system in place to directly collect personal income taxes from employers (through payroll source deductions) or from individual Albertans. Such taxes are paid by employers (through payroll source deductions) and by Albertans directly (in the case of self-employment and business income) to the CRA. The APITA largely adopts the payroll source deduction regime that is in place under the Federal ITA, including with respect to interest, fines, penalties and enforcement mechanisms. The Alberta Child and Family Benefit program, which provides direct financial assistance to lower and middle-income families with children under 18, is also administered by the CRA on behalf of Alberta.

The scope of the Alberta Tax Collection Agreement is limited to provincial taxes and would not cover an APP.

The Government of Alberta could directly collect and administer contributions to an APP. In this scenario, the Government of Alberta could explore a program similar to that of the Government of Québec, which directly collects QPP contributions. Following this example, the Government of Alberta would need to establish a platform through which employers and self-employed individuals could report and remit the APP contributions. Supporting information, for purposes of individuals preparing their tax returns, could be reported on the individuals' T4 Reporting (similar to QPP amounts), but the Government of Alberta would need to build the infrastructure to police and audit the system to ensure employers are appropriately remitting the employer and employee contributions to an APP.

## **Public account considerations**

With respect to the Public Accounts of the Government of Alberta, a number of legislative steps would need to be undertaken in order to replicate existing reporting by the Government of Canada pertaining to CPP assets and liabilities. The Government of Alberta could elect to establish different standards of public reporting for APP purposes.

From a statutory perspective, CPP contributions remitted to the Government of Canada are deposited in, and the benefits and expenses of the CPP are payable from, the Government of Canada's Consolidated Revenue Fund. The Government of Canada maintains a CPP Account and an Additional CPP Account, to which amounts in respect of contributions received and amounts payable in connection with CPP or Additional CPP benefits are credited and charged. The Public Accounts include an accounting of CPP contributions, payments and outstanding liabilities, but do not consolidate the assets and liabilities associated with the two CPP accounts, on the basis that these funds are not controlled by the Government of Canada; the Public Accounts nevertheless provide separate accounting of the assets and liabilities of the two CPP accounts.

If the Government of Alberta were to assume administrative responsibility for an APP, presumably it would also establish an APP Account and possibly an Additional APP Account, to which it would credit contributions received from employers and employees, and charge amounts payable in the form of benefits or expenses associated with administering an APP. We would anticipate, in such a circumstance, that the APP's legislative framework would contain comprehensive public reporting requirements relating to the revenues, payments, obligations, assets and investment performance.

Given that an APP would fall under the control of the provincial government, accounting standards could allow (or require) for presentation of APP assets and liabilities on the province's consolidated financial statements. This would present a contrast to the CPP, as the Public Accounts of Canada present CPP assets and liabilities separately, and not as part of the consolidated accounts. It may be desirable for an APP's legislative framework to address this issue and allow for separate presentation of APP related assets and liabilities on the province's consolidated financial statements for additional public transparency.

In addition, an identification system is required to identify employers and self-employed persons in Alberta for purposes of an APP. Currently, corporations in Alberta have an Alberta-specific tax identification number that could be used for purposes of an APP. Individuals in Alberta do not have a tax identification number specific to the province. Some form of identification system for Alberta individuals would be necessary to ensure APP contributions are made.<sup>16</sup>

### **Benefits administration**

The benefits administrator is responsible for managing the personal information of members, sharing of data with the CPP/QPP, calculation and payment of benefits and the overall plan member experience. In addition to traditional pension benefits administration, the CPP has structures in place to adjudicate disability benefits and resolve disputes and appeals of benefit decisions.

Employment and Social Development Canada (ESDC) is responsible for the administration of the CPP. It uses Service Canada's website/call center to provide information on the CPP, initiate the payment of benefits and estimate a member's pension (including income from other sources). In addition, the Social Security Tribunal of Canada (which includes both a general and appeals division), hears and makes decisions on appeals of decisions made by ESDC.

In Alberta, the APSC provides similar services to public sector plans in Alberta; however administration of an APP includes additional elements not usually dealt with in registered pension plan administration, including dealing with members who are self-employed, dealing with a number of employers greater than in even multi-employer plans, adjudication of disability claims, and dealing with payments to surviving children. These functions would need to be addressed in order to administer an APP.

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<sup>16</sup> The Government of Alberta's ability to rely on social insurance numbers for this purpose would have to be considered as part of the implementation phase.

## Options for an APP

The table below summarizes the options available and associated considerations for an APP.

**Table 8 – Considerations for selecting benefits administrator**

Option	Considerations
<b>Current CPP Provider</b> <i>ESDC is responsible for the administration and payment of CPP benefits</i>	<ul style="list-style-type: none"> <li>- requires a service agreement with the ESDC</li> <li>- the Province may have more limited influence on how an APP is administered and the member experience</li> <li>- allows members of an APP and the CPP to go to one source for information</li> <li>- the structure and expertise already exists within the ESDC to administer an APP</li> <li>- could continue to use Social Security Tribunal for appeals</li> <li>- would require modifications to systems and processes</li> </ul>
<b>Existing Alberta Provider</b> <i>APSC provides administrative services to many of the large public sectors plans in Alberta</i>	<ul style="list-style-type: none"> <li>- APSC has an understanding of pensions, but social security programs like an APP require additional expertise and systems, including ability to adjudicate disability benefits and resolve claims disputes</li> <li>- the Province would have control over the member experience and could use this as an opportunity to improve on the CPP member experience</li> <li>- potential for an integrated APP and public sector member experience</li> <li>- would require a significant investment in structure, systems, staffing, processes, and expertise</li> <li>- would have to determine a procedure and venue for appeals</li> </ul>
<b>New Alberta Provider</b> <i>Create new public sector provider to administer APP benefits</i>	<ul style="list-style-type: none"> <li>- similar considerations as for APSC</li> <li>- would also require enacting legislation and additional setup costs to create operational infrastructure</li> </ul>
<b>Private Sector Provider</b> <i>Contract a private sector provider to administer APP benefits</i>	<ul style="list-style-type: none"> <li>- similar considerations as for APSC</li> <li>- would require a significant investment for implementation</li> </ul>

## Investment management and cash management

Employee and employer contributions in excess of benefit payments and expenses are invested to reduce the long term cost of the plan and help pay for benefits when they exceed contributions. In addition, money needs to be managed and moved between accounts to pay for benefits and investments.

The CPPIB invests CPP assets and manages the flow of money between accounts. The CPPIB is an independent organization that operates at arms-length to the federal and provincial governments. It is not a crown corporation, and is governed by an independent board of directors appointed by the federal government and the provinces that participate in the CPP. The CPPIB has a mandate to invest in the best interest of CPP contributors, maximize return without taking undue risk, and provide cash management services to the CPP to facilitate the payment of benefits.

For context, the mandate of the Caisse de dépôt et placement du Québec (CDPQ) with respect to QPP investments is similar to that of the CPPIB in that it is to manage assets with a view to achieving optimal returns, but the CDPQ mandate also includes a consideration to contributing to Québec's economic development.



## Options for an APP

We have identified potential investment management models that the government of Alberta may consider in determining how to hold the assets of an APP serving as a provincial counterpart to the CPP. Each of these approaches would require purpose-drafted legislation or legislative amendments, and engage unique governance considerations. Alberta could also consider whether the investment management would report to a board that combines oversight responsibility for both the investment and administration of an APP, or establish separate oversight for these functions.

The table below summarizes the options available for an APP and considerations.

**Table 9 – Considerations for selecting investment manager**

Option	Considerations
<b>Current CPP Provider</b> <i>CPPIB currently invests assets and supports cash management for the CPP</i>	<ul style="list-style-type: none"> <li>- requires a service agreement with the CPPIB and Canada (CPPIB unlikely to have authority to enter such an agreement on its own)</li> <li>- no transfer of assets would be required</li> <li>- asset returns would be consistent with the CPP strategy</li> <li>- limited amount of implementation should be required</li> <li>- review oversight and structure from an APP perspective</li> <li>- consider how cash would be managed if APP administrator is not ESDC or CRA does not collect premiums</li> <li>- APP mandate relating to CPPIB would likely need to be similar to CPP</li> </ul>
<b>Existing Alberta Provider</b> <i>AIMCo currently manages assets for a number of pension plans and other Alberta government programs</i>	<ul style="list-style-type: none"> <li>- AIMCo is a Provincial corporation</li> <li>- mandate would need to be expanded to permit investing for an APP</li> <li>- potential for over/under performance compared to CPP</li> <li>- could consider additional measures to ensure independent operation</li> <li>- could review cash management capabilities of AIMCo</li> <li>- would require an investment in structure, systems, staffing, processes, and expertise</li> </ul>
<b>New Alberta Provider</b> <i>Create new public sector provider to invest assets and perform cash management for an APP</i>	<ul style="list-style-type: none"> <li>- mandate could be clearly aligned with APP investment objectives</li> <li>- potential for over/under performance compared to CPP</li> <li>- could be designed for desired level of independence</li> <li>- could leverage AIMCo to achieve economies of scale and limit duplication of effort</li> <li>- would require a significant investment for enacting legislation, structure, systems, staffing, processes, and expertise</li> </ul>
<b>Private Sector Provider</b> <i>Engage private sector investment managers to manage assets and perform cash management for an APP</i>	<ul style="list-style-type: none"> <li>- not a model commonly employed by large public plans like an APP</li> <li>- Alberta may consider this as a transition or supplemental approach to one of the alternate approaches above</li> </ul>

## Actuarial services

The health of an APP will need to be measured on a regular basis through actuarial valuations. In addition, other tests of the health of the plan or advice on the sustainability of benefits may be required as well as analysis of Alberta specific population considerations (such as mortality, fertility, and immigration). Alberta may consider consulting with the other public sector plans to have an Alberta Chief Actuary also be responsible for the valuations for these other plans. Retraite Québec performs this function for the QPP.

The Office of the Chief Actuary provides actuarial valuation and advisory services to the Government of Canada. Included in these services is the ongoing valuation of the CPP at least every three years, along with supplementary valuations if changes are considered or adopted (for instance when the Additional CPP benefits were being considered).

### Options for an APP

The table below summarizes possible options available for an APP.

**Table 10 – Considerations for selecting actuary**

Option	Considerations
<b>Current CPP Provider</b> <i>The Office of the Chief Actuary currently provides actuarial valuation and advisory service to the CPP</i>	<ul style="list-style-type: none"> <li>- requires a service agreement with the Office of the Chief Actuary/Office of the Superintendent of Financial Institutions and potentially Canada</li> <li>- APP valuation may require unique assumptions compared to the CPP</li> <li>- limited amount of implementation would be required</li> </ul>
<b>Existing Alberta Provider</b>	<ul style="list-style-type: none"> <li>- there is no existing Alberta provider to consider</li> </ul>
<b>New Alberta Provider</b> <i>Create new public sector provider to perform actuarial services</i>	<ul style="list-style-type: none"> <li>- mandate may not be large enough for a dedicated actuarial team, although Retraite Québec performs this function for the QPP</li> <li>- could consider possibilities to expand mandate to other government programs like Workers' Compensation Board or public sector pension plans</li> <li>- would require an investment for enacting legislation, structure, systems, processes, and expertise</li> </ul>
<b>Private Sector Provider</b> <i>Contract a private sector provider to perform actuarial valuations and provide consulting services</i>	<ul style="list-style-type: none"> <li>- this model is common for private and public sector pension plans</li> <li>- need unique expertise to provide these services for plans like an APP</li> <li>- competitive landscape is likely thin and would have significant transition costs as any subsequently new provider would have to replicate previous results and build valuation models</li> <li>- would require implementation costs</li> </ul>

### Audit services

Oversight and audit is important for the transparent and compliant operation of an APP. The auditor reviews financial statements and internal processes and controls.

Audit services for the CPP are provided by different service providers, including the Auditor General of Canada, and independent external auditors. The Auditor General of Canada audits the financial position of the CPP as it applies to Canada (and the participating provinces) while the CPPIB, as an independent entity, retains a private audit firm for auditing its financial statements.

### Options for an APP

The model for audit services will depend on the overall model for delivering services. There may be opportunities to have certain services performed by the Auditor General of Alberta, with other services being performed by independent external auditors.

### The costs of operating and implementing an APP

Implementing and operating an APP would be a significant investment of time and money. Each of the service provider options presented in this section would require different levels of ongoing costs and initial investments for enabling legislation, hiring, real estate, operational set-up, software and systems, and project management.

We have provided some ranges of ongoing and implementation costs for an APP based on similar service providers to the CPP. In preparing our analysis, we have considered the costs of running the CPP, and large public sector pension plans. As is common with pension plans, we have separated investment costs from non-investment costs.

### Investment costs

Ongoing investment costs are commonly expressed in basis points (0.01% increments) of the assets under management. These costs are generally realized as a reduction to the gross investment returns of the manager.

The following table summarizes the ongoing investment costs for CPP, and an average large pension plan. Note that the CPP includes certain cash management activities that are not standard for investment managers, which will result in higher costs.

**Table 11 – Investment management costs**

	CPP	Average large pension plan
<b>Investment costs in basis points of assets under management<sup>17</sup></b>	87	50

While these costs are a good indicator to the magnitude of investment expenses that an APP could expect, there are some items to note:

1. CPP investment costs include operational costs, transaction costs, external investment management fees and performance fees.
2. The CPPIB plays an additional cash management role which, all else being equal, would increase its costs.
3. The asset mixes are not all directly comparable, and as such the investment/operational costs are not directly comparable. Generally asset mixes with more illiquid assets like private equity, infrastructure and real estate are more expensive to acquire and manage.
4. The ultimate investment costs for an APP will depend on a number of factors including the asset mix, and investment managers.

### Implementation costs

The cost to implement an APP's investment management structure will vary significantly by the desired asset mix and the investment management structure selected based on the options discussed in this section. If the investment manager exists and has the required expertise, then the implementation costs would be in the range of \$75 million to \$150 million. Whereas, if the investment manager needs to be setup or requires significant adjustments to expertise and staffing, then the transition costs will be much more significant and would be in the range of \$750 million to \$1,200 million.

<sup>17</sup> All figures represent the three-year average from 2017-2019. Investment costs includes operating, transaction, and management/performance fees, and anything else deemed "investment" costs in the applicable plan's reports.

### **Non-investment costs**

Included in non-investment costs would be contribution management, benefits administration, actuarial services and audit services as described above. For social security programs like the CPP and QPP, these types of costs are usually represented as basis points on the pensionable/covered earnings and are counted against the contribution rate. The CPP's annual non-investment costs average approximately 12 basis points of pensionable earnings<sup>18</sup> (or approximately \$612 million per year) while the QPP reports costs of approximately seven basis points (\$97 million).

### **Implementation costs**

The cost to implement an APP's non-investment structure will vary significantly by the service provider structure selected. At the low-end, assuming an APP would fully leverage existing CPP providers, we estimate that implementation costs would be approximately \$100 million. At the high end, assuming an APP would create new providers or leverage private sector solutions, implementation costs would be approximately \$1,000 million. If Alberta leverages existing Alberta providers, costs would be somewhat lower than the high end implementation cost, but savings would be limited as additional staffing, structure, systems, expertise and processes would still be required.

### **New jobs**

If Alberta decides to leverage existing Alberta structures or create new ones to deliver an APP, then an APP could create 1,500 to 2,000 long term jobs in addition to the (temporary) jobs needed for implementation. These new jobs would not necessarily be based in Alberta. However, we would anticipate many of the jobs would be Alberta-based, and the number of new jobs and their location will be a function of the approach Alberta undertakes in implementing an APP. For instance, if Alberta decides to maintain the CPP's infrastructure (CPPIB, Office of the Chief Actuary (OCA), CRA, etc.), this approach may not result in a significant increase in Alberta-based jobs. Further, if existing Alberta providers are used, the increases will be lower as the organizational infrastructure (human resources, leadership, etc.) will already be in place.

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<sup>18</sup> Figures represent three-year average of non-investment expenses over pensionable earnings in the period 2017-2019. Pensionable earnings were calculated by dividing reported contributions for each year by the applicable contribution rate. CPP figures came from the 2019 and 2017 CPP financial statements:

- o [https://epe.lac-bac.gc.ca/100/201/301/public\\_accounts\\_can/html/2018/recgen/cpc-pac/2019/vol1/s6/supp-pension-eng.html](https://epe.lac-bac.gc.ca/100/201/301/public_accounts_can/html/2018/recgen/cpc-pac/2019/vol1/s6/supp-pension-eng.html)
- o [https://epe.lac-bac.gc.ca/100/201/301/public\\_accounts\\_can/html/2018/recgen/cpc-pac/2017/vol1/s6/supp-pension-eng.html](https://epe.lac-bac.gc.ca/100/201/301/public_accounts_can/html/2018/recgen/cpc-pac/2017/vol1/s6/supp-pension-eng.html)

# Opportunities for additional analysis

This report contains information that has been prepared to assist the Province by providing detailed analysis on the benefits, costs, and risks of creating an APP through the withdrawal from the CPP. As noted, this report has been prepared using publicly available information, and there are opportunities for the Province to consider additional analysis.

## **Perform additional analysis on asset transfer amount and minimum contribution rates**

While we believe our estimates for an APP are reasonable based on the publicly available data, the Province could attempt a more detailed analysis based on more refined data from the Office of the Chief Actuary. This would include individual membership data, and a more accurate accounting of contributions and benefits attributable to Alberta for the purposes of determining the asset transfer amount.

## **Analyse service providers**

In our report, we have presented an overview of the different service provider areas and options. To help in its assessment of the available options, the Province could consider doing an analysis between the capabilities of the current CPP service providers and the other available options. This will help to better assess the effort and cost required to implement the different options.

## **Building a governance structure and a project plan**

If the Province decides to create an APP, we believe a logical first step would be to decide on the governance structure, the APP benefits, and the desired service providers. It will be important to understand the key service providers as the Province builds out its next steps (contribution and benefits administration, and investment management). This will allow the Province to develop a comprehensive project plan focused on a destination. Earlier action would also provide more lead time to reduce the risk of not having the structure in place when an APP goes live.

## **Review funding methodology**

Our analysis of the APP minimum contribution rate was based on the same valuation methodology that is used by the CPP, which sets the asset coverage ratio in year 63 of the projection equal to the year 13 asset coverage ratio. However, with such a large asset transfer amount at the start of an APP, the Province could consider alternative funding methods that could lead to lower contribution rates while maintaining benefit security.

## **Consider the logistics of an asset transfer**

If the Province decides to use an investment manager other than the CPPIB, it will need to consider how and over what period it will be reasonable for an asset transfer to take place. While fixed income and public equities will be straightforward to transfer out of the CPPIB, illiquid assets like private equity, real estate and infrastructure take an extended period to liquidate and also to invest in.

## **Engage with Canada and Québec**

Coordination with the CPP and QPP will be key to the success of an APP, and the Province will be able to learn additional details of the administration of contributions, benefits, investments, and inter-plan agreements that will help ensure the success of an APP when it goes live.

# Appendices

# Glossary

<b>Additional APP</b>	The portion of an APP that would replicate benefits provided by the Additional CPP (as described in Appendix C.5 – Detailed CPP Provisions for Modelling)
<b>APP</b>	A potential Alberta Pension Plan as described under the “Background” Section of this report
<b>APP Effective Date</b>	The first day of the third year following the year in which the notice was given by Alberta to the Minister of Employment and Social Development that Alberta has provided by law for the establishment and operation of a plan of old age pensions and supplementary benefits comparable to those then provided by CPP and for the assumption under that plan of all obligations and liabilities accrued or accruing under the CPP with respect to Alberta beneficiaries
<b>AIMCo</b>	Alberta Investment Management Corporation
<b>APITA</b>	Alberta Personal Income Tax Act
<b>APSC</b>	Alberta Pensions Services Corporation
<b>ATBF</b>	Alberta Treasury Board and Finance
<b>Base APP</b>	The portion of APP that would replicate benefits provided by the Base CPP (as described in Appendix C.5 – Detailed CPP Provisions for Modelling)
<b>CDPQ</b>	Caisse de dépôt et placement du Québec
<b>CPP</b>	Canada Pension Plan
<b>CPP 31 Report</b>	Actuarial Report for the Canada Pension Plan as at December 31, 2021, prepared by the Chief Actuary of Canada
<b>CPP Act</b>	Canada Pension Plan Act current to 2020-12-28 and last amended on 2020-03-01 and Regulations thereto
<b>CPPIB</b>	Canada Pension Plan Investment Board
<b>CRA</b>	Canada Revenue Agency
<b>ESDC</b>	Employment and Social Development Canada
<b>Federal ITA</b>	<i>Income Tax Act (Canada)</i>
<b>First Additional APP/CPP Contribution Rate</b>	The First Additional Contribution Rate of the Additional APP/CPP applies to earnings between the YPE and the YMPE to fund the additional pensions complementing the Base APP/CPP with respect to earnings up to the YMPE as provided under the Additional APP/CPP.
<b>OCA</b>	Office of the Chief Actuary
<b>QPP</b>	Québec Pension Plan
<b>Residual CPP</b>	Residual CPP means the CPP following withdrawal of Alberta covering remaining provinces
<b>SSA</b>	Social Security Agreement
<b>Second Additional APP/CPP Contribution Rate</b>	The Second Additional Contribution Rate of the additional APP/CPP applies to earnings between the YMPE and YAMPE to fund pensions with respect to earnings between the YMPE and the YAMPE provided under the Additional CPP/APP.
<b>Target A/E ratio</b>	For Base CPP and Base APP, the target A/E ratio is the asset-to-expenditure ratio in the 13 <sup>th</sup> and 63 <sup>rd</sup> projection years following the valuation date. For the Additional CPP and Additional APP, the target A/E ratio is the asset-to-expenditure ratio in the later of 2088 and 2098 or the 53 <sup>rd</sup> and 63 <sup>rd</sup> projection years following the valuation date.
<b>TRA</b>	Tax and Revenue Administration Division of ATBF
<b>USS</b>	Understanding on Social Security
<b>YBE</b>	Year's Basic Exemption as defined under as defined under CPP, currently the first \$3,500 of earnings. This rate has not changed since 1997.
<b>YAMPE</b>	Year's Additional Maximum Pensionable Earnings as defined under CPP
<b>YMPE</b>	Year's Maximum Pensionable Earnings as defined under CPP

# Appendix A: Additional considerations for an APP

## A.1 – Coordination between the CPP and APP

An APP would have to be designed to coordinate benefit payments for individuals who have service under it, the CPP and potentially the QPP. We believe that the current framework for benefit payments between the CPP and QPP could be extended to an APP, subject to modifications.

The chief basis for cooperation between the CPP and QPP is the *Agreement to provide for the payment of benefits to or in respect of dual contributors made the 30<sup>th</sup> day of January, 1975* (the Agreement), but a number of other agreements are also in place to coordinate benefit payments. The Agreement operates on the basis that someone who has contributed to both the CPP and QPP (defined as a “dual contributor”) will receive a single pension based on their place of residence at the time they apply for the primary CPP or QPP pension.

In other words, where the dual contributor’s usual place of residence at the time of the application is outside of Québec, the pension will be payable under the CPP. Where the dual contributor’s usual place of residence at the time of the application is Québec, the primary pension is payable under the QPP.

This means that, for example, a person who contributed to the CPP for most of their career and then moves to Québec prior to retirement would receive a pension under the QPP, provided they are a dual contributor. The Agreement would have to be adjusted if an APP significantly diverged in design from the CPP or QPP.

The paying jurisdiction receives from the other jurisdiction a portion of the benefit paid under the Agreement, essentially on a pro rata basis based on the proportion of the individual’s contributions attributable to both of the plans. Each jurisdiction delivers to the other as of the end of each month a statement showing the amount of the individual benefits that it has paid during the month under the Agreement. Each jurisdiction pays the other the amount owing for the month, as determined under the Agreement, without interest.

When issuing its first cheque, the paying jurisdiction informs the beneficiary that the whole amount of the benefit is attributable to contributions made under both plans.

## A.2 – Participation in an APP

### Employees under federal jurisdiction

We would anticipate that the same rules determining jurisdiction under the CPP and the QPP would apply in respect of an APP. The general rule is that the CPP does not apply in relation to employment in Québec.<sup>19</sup> With respect to self-employed earnings for a year, the CPP does not apply with respect to a person who was resident in Québec at the end of the year, or who resided in Québec immediately before the person ceased to be resident in Canada.<sup>20</sup>

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<sup>19</sup> CPP Act, s. 4(1)(a).

<sup>20</sup> CPP Act, ss. 4(1)(b) and 4(5).



A person is deemed to be employed in the province in which the establishment of their employer to which they report to work (e.g., the individual's office, factory or other place of employment) is situated. Where the employee is not required to report for work at any establishment of their employer, they are considered to be employed in the province in which the establishment of their employer from which their remuneration is paid is situated.<sup>21</sup>

Pursuant to section 4(2) of the CPP Act, federal civil servants and private sector employees in federal works or undertakings (e.g., railways, telecommunications) would be subject to the CPP unless the federal government comes to an agreement with the province providing a comprehensive pension plan pursuant to section 4(3) of the CPP Act. Therefore, the CPP Act provides that the CPP would continue to apply to federal civil servants and federally regulated employees unless the Alberta government is able to conclude an agreement with the federal government similar to the 1966 Canada-Québec agreement.

We summarize the current situation as follows:

**Table A.2.1 – APP/CPP participation by type of employee**

Type of Employee	CPP or APP	Comments
<b>Employees employed in Alberta outside of federal works or undertakings</b>	APP	
<b>Private sector employees employed in Alberta in federal works or undertakings</b>	APP, assuming Alberta makes agreement with federal government	In the absence of agreement with the federal government, CPP Act provides that CPP would continue to apply
<b>Federal civil servants employed in Alberta who are not Canadian Forces or RCMP</b>	APP, assuming Alberta makes agreement with federal government	In the absence of agreement with the federal government, CPP Act provides that CPP would continue to apply
<b>Canadian Forces or RCMP</b>	CPP	Assumes that Quebec precedent would be followed.
<b>Indigenous<sup>22</sup> persons with tax-exempt income</b>	APP	Subject to employer or employee opt-in, as described below

### **Indigenous employees with tax-exempt income**

Earnings of Indigenous persons that are not included as taxable income under the Federal ITA are automatically exempt under the CPP, unless there is an election made to participate in the CPP. This election may be made by the employer in respect of all of its Indigenous employees or it may be made by the employee. Furthermore, a self-employed Indigenous person with tax-exempt income may elect to participate in the CPP.

Similarly, Indigenous persons with tax-exempt income in Québec may elect to participate in the QPP.

<sup>21</sup> CPP Act, s. 4(4); *Act Respecting the Québec Pension Plan*, s. 7.

<sup>22</sup> The CPP Act continues to use the term "Indian" to categorize Indigenous persons whose earnings are not included in computing income for the purposes of the Federal ITA. We have used the term "Indigenous," which may include First Nations, Métis, or Inuit peoples.

## A.3 – Social Security Agreements

Both the CPP and QPP have SSAs with a number of international jurisdictions. These agreements help determine coverage for individuals who are subject to the laws of both jurisdictions and preclude double-coverage. They can also deal with employees temporarily located in the other jurisdiction in order to prevent them having benefits under both plans. Totalization rules provide for the recognition of service in the other country for eligibility for benefits. Each country continues to pay for its own benefits.

Since the Canada-US SSA is likely to be the most significant SSA to Albertans, we have discussed the Canada-US SSA below as an example of the impact of these SSAs.

### Coverage rules

The Canada-US SSA stipulates that, except as otherwise provided in the agreement, a person's work can only be covered by the social security system of one country.<sup>23</sup> Accordingly, a person who would otherwise be subject to the laws of both countries will be covered only under the system of the country to which the work is attributed and will be exempt under the system of the other country. This rule effectively precludes double coverage and double contributions with respect to the same period of employment or self-employment.

A further exception applies to employees who work for a Canadian employer and are temporarily sent to the United States (US) (or vice versa). The person continues to be subject to the laws of the sending country in respect of their work in that last territory provided that the employment in the territory of the other signatory is not expected to exceed 60 months. This means that a Canadian employee sent to work in the US on a temporary basis would continue to contribute to the CPP (or QPP).

Where a person is required to work in the territory of the importing jurisdiction for intermittent periods of short duration, each such period is considered a separate period for the purpose of the 60-month continuation rule.<sup>24</sup> For example, if an employee were sent to work by a US employer at a branch of the US employer in Canada, and if that employee commuted each day from their US home to the Canadian place of work, that employee would continue to participate in the US social security plans, with no limit on the amount of time that they worked in Canada.

### Totalization rules

The totalization rules recognize, for the purpose of eligibility for benefits under the legislation of one signatory, periods of coverage under the legislation of the other signatory. It is important to stress that the Canada-US SSA and the Québec-US USS do not mandate the integration of benefits; the totalization affects only the eligibility for benefits. In other words, each jurisdiction independently calculates and pays its own benefits.

If a person is not otherwise entitled to the payment of a benefit because of insufficient periods of coverage under the CPP, the entitlement to the benefit shall be determined by including, for each non-overlapping calendar year that includes at least one quarter of coverage credited under US laws, one year of coverage under the CPP.<sup>25</sup>

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<sup>23</sup> Canada-US SSA, Article V.

<sup>24</sup> Canada-US SSA, Article V, paragraph 2(b).

<sup>25</sup> Canada-US SSA, Article VIII, paragraphs 1(a) and 2(b).

In the application of totalization with respect to the entitlement to US benefits, the Canadian (or Québec) Agency is required to notify the US Agency of the years in which a person is credited with coverage under the CPP (QPP) along with such other information as may be necessary to determine the amount of the person's benefit.<sup>26</sup> In the application of totalization with respect to the entitlement to Canada (Québec) benefits, the US Agency is required to notify the Canadian (Québec) Agency of the periods of coverage that a person has completed under US laws along with such other information as may be necessary to determine the amount of the person's benefit.<sup>27</sup>

### **Consequences of no SSA**

An SSA between Canada and another country applies only for purposes of the CPP. Similarly, an SSA between Québec and another country applies only for purposes of the QPP. Should Alberta establish an APP, neither the participants in an APP nor Alberta would benefit from the provisions of the SSAs between Canada and other countries. Alberta, as Québec has done, would need to negotiate its own SSAs with respect to an APP.

An Alberta employee who works in a country with which Alberta has no SSA may be required to contribute, with respect to that period of employment, under the social security legislation of both Alberta and that other country. For example, absent an SSA, there would be no five-year rule allowing continued coverage for international assignments.<sup>28</sup> In addition, such an individual would not benefit from the totalization benefits provided under SSAs and could, as a result of working outside Canada, lose benefit entitlements to which they would have been entitled had they remained in Canada.

## **A.4 – Comparison of the CPPIB Act and the AIMCo Act**

One of the options for investing the assets of an APP would be to assign this function to AIMCo or a similar body as outlined above in the main report. This section provides a detailed comparison of CPPIB and AIMCo including how they operate and the legislation governing these entities. The purpose of this review is to illustrate some of the governance and structural decisions to be considered in establishing a new investment manager or assigning the investment mandate to AIMCo.

The CPPIB was established pursuant to the *Canada Pension Plan Investment Board Act* (the CPPIB Act). AIMCo was established pursuant to the *Alberta Investment Management Corporation Act* (the AIMCo Act). Both are supported by corresponding regulations (respectively, the CPPIB Regulations and the AIMCo Regulations).

This appendix summarizes the relevant provisions of the CPPIB Act and the AIMCo Act relating to corporate governance and operational independence. The similarities and differences between the legislative provisions are described briefly below and, where appropriate, are accompanied by some observations regarding potential approaches the Government of Alberta could pursue in the event it wished to align the governance structure of AIMCo (or another investment manager) more closely with that of CPPIB.

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<sup>26</sup> Canada-US Administrative Arrangement, paragraph 6.

<sup>27</sup> Canada-US Administrative Arrangement, paragraph 7.

<sup>28</sup> Note, however, that Québec has provided a five-year rule in the second paragraph of section 8 of Regulation respecting pensionable employment Act respecting the Québec Pension Plan.

## Operational independence

Unlike AIMCo, CPPIB is explicitly not an agent of the Crown (CPPIB Act, s. 3(2)), and is not part of the federal public administration (CPPIB Act, s. 3(3)). By contrast, AIMCo is explicitly identified as an agent of the Crown (AIMCo Act, s. 3(1)) and is considered a Crown Corporation.

CPPIB is arguably subject to greater operational independence than AIMCo, as the AIMCo Act establishes rights and privileges of the Minister (the President of Treasury Board and Minister of Finance) relative to AIMCo, and corresponding obligations on the part of AIMCo. For example, AIMCo must provide all records required by the Minister (AIMCo Act, s. 13(2)), disclose to a designated entity information as directed by the Minister (AIMCo Act, s. 13(3)), and allow the Minister or a representative access to all records and documents of AIMCo, including personal information as defined in the *Freedom of Information and Protection of Privacy Act* for the purpose of reviewing and monitoring the operations of AIMCo, administering the AIMCo Act and ensuring that AIMCo is carrying out the purpose and intent of the AIMCo Act (AIMCo Act, ss. 13(4) and (5)). The Treasury Board may also issue directives that must be followed by AIMCo or AIMCo's board of directors (AIMCo Act, ss. 19 and 19.1). There are no analogous provisions in the CPPIB Act that allow the federal government similar access to the records of the CPPIB or to issue directives to the CPPIB.

**Observations:** Whether, in practice, the Government of Alberta (through the Treasury Board) exerts any influence over the operation or investment decision making of AIMCo, the AIMCo Act does contain a number of provisions which allow for greater governmental involvement in its affairs than is available to the Government of Canada under the CPPIB Act. If the Government of Alberta wishes to assert the operational independence of AIMCo (or an equivalent investment manager) in respect of APP assets, the Government of Alberta may consider amending the AIMCo Act to remove the information sharing requirements and the ability of Treasury Board to issue directives to AIMCo, or as an alternative, to limit the application of those provisions to AIMCo's activities unrelated to APP asset management.

## Institutional objects

The CPPIB's statutory purpose is limited to assisting the CPP in meeting its obligations to its contributors and beneficiaries, managing amounts transferred to it in the best interests of CPP contributors and beneficiaries, and overseeing the investment of CPP assets, with a view to achieving a maximum rate of return without undue risk of loss, having regard to the factors that may affect the funding of the CPP (CPPIB Act, s. 5).

AIMCo has been established and is authorized to provide investment management services to designated entities in accordance with an investment management agreement and/or as set out in regulation (AIMCo Act, ss. 2(2) and 6) and is obliged to act in the best interests of designated entities while doing so (AIMCo Act, s. 2(2.1)).

**Observations:** The AIMCo Act could be amended to distinguish between AIMCo's current responsibilities towards its existing (and prospective future) clients and its responsibilities in connection with the investment of APP assets. Specifically, the AIMCo Act could identify investment expectations and guiding principles relating to the risk/reward profile for the portfolio in aggregate (as the CPPIB Act does), so as to provide a clear expression of the investment objectives imposed on AIMCo (and a standard against which AIMCo's decisions and outcomes can be measured). Alternatively, if the administrator of an APP were to enter into a contractual arrangement with AIMCo (following the model currently applied to the jointly governed public sector pension plans which are statutorily required to rely on AIMCo for investment management), the AIMCo Act could be amended to provide that AIMCo be responsible for meeting the investment objectives of its client as set out in the applicable investment management agreement, consistent with existing AIMCo Act provisions.

## Board of director composition

The CPPIB is managed by a board of directors consisting of twelve individuals (CPPIB Act, s. 7). Directors are appointed to three year terms by the federal cabinet (CPPIB Act, s. 10(1)), with the prior consultation of the provincial ministers responsible for the CPP (CPPIB Act, s. 10(3)). The CPPIB Act does not contain requirements relating to necessary skill, experience or residency, although the Minister of Finance is directed to consider, when making appointment recommendations to cabinet, geographic diversity, the Board having a sufficient number of directors with proven financial ability or work experience to assist the board in meeting its objectives, and the intention that no more than three of the twelve directors reside outside of Canada (CPPIB Act, s. 10(4)). Directors may be removed by the federal cabinet prior to the end of the appointed term for cause (CPPIB Act, s. 10(6)). Director remuneration is as determined in the CPPIB's by-laws (CPPIB Act, s. 10(10)).

AIMCo is managed by a board of directors consisting of eleven individuals appointed by the provincial cabinet (AIMCo Act, s. 4(1)) and director remuneration is determined by the provincial cabinet (AIMCo Act, s. 4(3)). Directors are appointed for terms not to exceed three years (AIMCo Regulation, s. 2(1)). Individuals appointed to the AIMCo board are required to have a proven and demonstrated expertise in investment management, finance, accounting or law or as an executive or director in a senior publicly traded issuer (AIMCo Regulation, s. 5).

**Observations:** On balance, the requirements of the AIMCo Act and Regulation relating to director competence are stronger than the corresponding provisions of the CPPIB Act, and as they do not contain geographical restrictions or limitations on the recommendation or appointment power (e.g., the requirement to consider regional representation or a soft limit on the number of non-resident directors), the AIMCo Act does not contain provisions (beyond the competency requirements) arguably limiting the pool of capable director candidates. The AIMCo Act also does not contain a provision permitting the removal of directors for cause during the term of an appointment; this ostensibly promotes operational independence insofar as the government has limited ability to remove directors mid-term, although it may be viewed as a failsafe available for use only in extraordinary circumstances, and the inclusion of the provision in the CPPIB Act could be cited as justification for the necessity and reasonableness of such a clause. For reasons of operational independence, the Government of Alberta may consider extending to the board of AIMCo the ability to set its own remuneration, as currently enjoyed by CPPIB.

## Standard of care

Directors and officers of CPPIB are obliged to act honestly and in good faith with a view to the best interests of CPPIB, and exercise the care, diligence and skill that a reasonably prudent person would display in the same circumstances (CPPIB Act, s. 14(1)). A director or officer who has, or ought to have by reason of profession or business a particular level of knowledge or skill is obliged to utilize that knowledge or skill in discharging their duties (CPPIB Act, s. 14 (2)).

Directors and officers of AIMCo are also required to act honestly and in good faith with a view to the best interests of AIMCo, and exercise the care, diligence and skill that a reasonably prudent person would display in comparable circumstances (AIMCo Act, s. 11). The duty of care owed by AIMCo's directors and officers is not enhanced by the particular skills or experience of the director.

**Observations:** The Government of Alberta may consider enhancing the standard of care owed by directors and officers by requiring directors and officers to utilize any knowledge or skill that such director or officers possesses, or ought to possess, by reason of profession or business, in order to align with the analogous provisions of the CPPIB Act. In view of the fact that the AIMCO Act and Regulation establishes a higher standard of expertise for directors than the CPPIB Act (and applies such standard to each director, rather than at an aggregate board level), there is presumably little risk that imposing such a standard would result in different standards of care being applied to individual directors based on their backgrounds, which may be a concern where directors (and officers) have varying levels of skill or expertise as a result of their profession or training.

### **Conflicts of interest**

The CPPIB Act contains detailed conflict of interest provisions, requiring the disclosure of any conflicts a director or officer may have involving an interest as a party to a transaction or proposed transaction with the CPPIB, or as a director or officer of, or person holding a material interest in any entity involved in a transaction or proposed transaction with the CPPIB (CPPIB Act, s. 22(1)).

The AIMCo Act incorporates by reference the disclosure requirements of the Alberta *Business Corporations Act* relating to transactions in which a director has an interest (AIMCO Act, s. 11.1).

**Observations:** The AIMCo Act presently incorporates strong disclosure requirements to identify and address potential conflicts of interest, holding AIMCo directors to the same standards as directors of Alberta-registered corporations (and ensuring that any changes to the *Business Corporations Act* provisions apply with immediate effect to AIMCo). While the AIMCo Act could be amended to include its own detailed conflict of interest provisions (modeled on either the CPPIB Act or *Business Corporations Act* provisions), there does not appear to be a significant gap between the governance requirements applicable to CPPIB and AIMCo in this context.

### **By-laws**

CPPIB may make by-laws consistent with the CPPIB Act (CPPIB Act, s. 27(1)), and shall provide a copy of such by-laws or an amendment to the by-laws to the Minister as well as the provincial ministers responsible for the CPP (CPPIB Act, s. 28(1)). The by-laws are available for review by the public (CPPIB Act, s. 28(2)).

AIMCo is authorized to enact by-laws governing the business and affairs of AIMCo, and the calling and conduct of board and committee meetings, but such by-laws must be approved by the Minister (AIMCo Act, s. 9). There is not a corresponding obligation under the AIMCo Act to make the by-laws available for public review.

**Observations:** The Government of Alberta may consider whether, as a matter of operational independence, the Minister ought to retain the ability to approve amendments to AIMCo's by-laws. As a matter of operational transparency, the Alberta government may consider whether AIMCo's by-laws are to be available to the public.

## Financial reporting

The CPPIB is obligated to prepare quarterly financial statements (CPPIB Act, s. 39(6)), which are delivered to the federal and provincial ministers responsible for the CPP and to the general public (CPPIB Act, s. 50(1) and (2)). The CPPIB is also responsible for preparing an annual report, with prescribed contents, that is to be made available to the federal and provincial ministers for tabling before Parliament and made publicly available (CPPIB Act, s. 51). The annual report is required to include information pertaining to CPPIB's governance practices, the remuneration of directors and senior officers and the results of a special audit or special examination (CPPIB Regulation, ss. 21-22).

The AIMCo Act contains no analogous provisions (likely in part because the entities on behalf of which AIMCo invests are subject to their own reporting duties).

**Observations:** Transparent reporting of APP investment results could either be the direct responsibility of AIMCo (as in the CPPIB model) or the APP administrator (whether that be the Government of Alberta or a third party administrator). If the Government of Alberta opts for the former approach, the AIMCo Act would presumably be amended to include specific reporting obligations similar to those imposed upon CPPIB with respect to frequency, content and manner of distribution. Alternatively, if the Government of Alberta elects to make investment performance reporting the responsibility of the APP administrator, the AIMCo Act would presumably be amended to ensure that the APP administrator receives the necessary information on a timely basis to facilitate such public disclosures (or that the investment management agreement between the parties contain such provisions, if the specific details are to be left to the investment management agreement).

## Public meetings

The CPPIB is obliged to hold public meetings every two years in each province to discuss the contents of the annual report, and at least one director or officer is to be attendance in each public meeting (CPPIB Act, s. 52). There is no analogous provision in the AIMCo Act to hold public meetings.

**Observations:** In order to replicate the CPPIB model, the AIMCo Act would need to be amended to impose an obligation on AIMCo to prepare an annual report, and to hold public meetings on a rotating basis in various cities and regions throughout the province.

## Investment rules

The regulations to the CPPIB Act set forth both quantitative and qualitative limits relating to CPPIB investments (CPPIB Regulations, ss. 11, 13, and 15-18) which are modeled on the investment rules applicable to employment pension plans and contained in the Regulations made under the *Pension Benefits Standards Act, 1985*. We would expect that the Government of Alberta would want to consider similar guideposts for AIMCo in the investment of APP assets, unless its responsibility was limited to investing APP assets in accordance with a statement of investment policies and procedures established by the APP administrator (in which case the legislation governing the APP administrator might likely include such investment parameters, which in turn would be reflected in the statement of investment policies and procedures).

## Miscellaneous provisions

The CPPIB is required to have two sub-committees, the Audit Committee and the Investment Committee (CPPIB Act, s. 30(1)), each of which has specific duties assigned by the CPPIB Act (CPPIB Act, s. 31 and 34). AIMCo has only one statutory sub-committee with specified functions and responsibilities: the Audit Committee (AIMCo Act, s. 10) (although AIMCo also currently has in place an Investment Committee, a Human Resources and Compensation Committee, and a Governance Committee).

The CPPIB is obligated to prepare a statement of investment policies and procedures for the investment of CPP assets (CPPIB Act, s. 35) that complies with stipulated requirements (CPPIB Regulations, s. 8); there is no analogous requirement for AIMCo (which we understand relies on statements of investment policies and procedures developed by its clients).

**Observations:** If AIMCo is extended authority to invest APP assets, presumably it would become responsible for the development of a statement of investment policies and procedures, and the AIMCo Act would need to be amended to provide parameters for the development of such a statement. Alternatively, responsibility for the preparation of the statement of investment policies and procedures could rest with the administrator of the APP, as is the case with registered pension plans (whether that be the Government of Alberta or a third party administrator), in which case AIMCo's responsibility would presumably be limited to investing APP assets in accordance with the statement of investment policies and procedures, consistent with its obligation to its existing clients.



# Appendix B: Additional discussion of asset transfer from CPP to an APP

## Asset transfer to support transferred CPP obligations and liabilities

Under subsection 3(1)(b)(ii) of the CPP Act, in order to withdraw its participation in the CPP, the comparable pension plan set up by withdrawing province must assume “[...] all obligations and liabilities accrued or accruing [...]” to the effective withdrawal date, namely, the third year following the provision of the required notice.<sup>29</sup> Under section 113 of the CPP Act, once a regulation has been made prescribing the withdrawing province as a “province providing a comprehensive pension plan,” as of the date of that regulation, all obligations and liabilities accrued or accruing cease to be obligations or liabilities in respect of employment and self-employment in the withdrawing province for the purposes of the payment of CPP benefits.<sup>30</sup>

The CPP Act requires the federal Finance Ministry to pay a prescribed amount to the government of the withdrawing province. The amount to be transferred is calculated as follows, as of the date of the regulation prescribing the withdrawing province as a “province providing a comprehensive pension plan”:<sup>31</sup>

The sum of:

- (i) The total amount of all contributions credited to the CPP Account and the additional CPP Account in respect of employment and self-employment in the withdrawing province; and
- (ii) The net investment return of the CPPIB, and all interest accrued to the credit of the CPP Account and the additional CPP Account that is derived from the contributions referred to in item (i) above;

Less the following:

- (iii) The part of all amounts paid as or on account of benefits under the CPP that would not have been payable if the withdrawing province been a “province providing a comprehensive pension plan” before the establishment of the CPP (i.e., May 3, 1965); and
- (iv) The portion of the administrative costs under the CPP Act, in proportion to the total amount of the contributions referred to in item (i) above against the total amount of all contributions credited to the CPP Account and the additional CPP Account.

## Interpretation of asset transfer legislation

A literal reading of the legislation in the section above implies that investment returns should only be applied to CPP contributions, and not to benefit payments and CPP administration costs. Applying this literal reading of the CPP Act would result in an unrealistically large Base asset transfer figure of \$637 billion as of December 31, 2021 (117% of Base CPP assets as of that date), which our model projects to grow to approximately \$747 billion (118% of Base CPP assets) as of January 1, 2027. An alternate and reasonable interpretation is to apply investment returns to the net cash flows of contributions less benefit payments and CPP administration costs. This alternate interpretation has been used for the purposes of this report.

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<sup>29</sup> CPP Act, s. 3(1)(b)(ii).

<sup>30</sup> CPP Act, s. 113(1)(a).

<sup>31</sup> CPP Act, s. 113(2).

The simplified interpretation of the legislation that was followed for the purposes of this report can be summarized as follows:

The sum of the following:

- (i) Total of all CPP contributions, up to effective date of split, in respect of employment (and self-employment) in Alberta; and
- (ii) Net investment returns, up to effective date of split, attributable to the contributions in (i) less the amounts in (iii) and (iv);

Less the following:

- (iii) Any benefit payments paid from CPP that would not have been payable if an APP existed; and
- (iv) A proportion of CPP administration costs, up to effective date of split, weighted according to the contributions in Alberta versus total CPP contributions.

This methodology should produce the same outcome as if each province had run its own individual program account within the CPP since 1966 and earned the same annual returns (expressed as a percentage of the asset base at the beginning of each year) as the CPP as a whole and shared in the costs as described, while being able to borrow from the other provinces to cover any benefit payments in excess of contributions.

This methodology has been applied to Base CPP and Additional CPP separately for the purposes of determining the asset transfer amounts shown in this analysis.

## Data used and calculation of asset transfer amount

Table B.1.a below presents a historical progression on a best estimate basis of the Base CPP assets which would be transferrable to Alberta based on the CPP legislation referenced above.

**Table B.1.a – Historical Base CPP and Alberta contributions, benefits, operating expenses and rates of return (\$million except where noted)**

Year	Base CPP Contributions Paid in Alberta <sup>(1)</sup>	Base CPP Benefits Paid in Alberta <sup>(2)(3)</sup>	Alberta Share of Base CPP Operating Expenses <sup>(4)</sup>	Base CPP Nominal Rate of Return <sup>(5)(6)(7)</sup>	Net Investment Income	Base Asset Balance at Dec. 31
1966	55	-	1	0.7%	-	54
1967	60	-	1	4.3%	3	116
1968	65	1	1	5.1%	8	187
1969	71	3	2	5.6%	12	265
1970	75	7	2	6.2%	20	351
1971	81	11	2	6.5%	26	445
1972	89	16	2	6.8%	33	549
1973	101	21	3	6.8%	41	667
1974	127	30	3	7.0%	50	811
1975	157	45	4	7.2%	64	983
1976	189	64	5	7.6%	81	1,184
1977	222	83	5	7.8%	98	1,416
1978	262	106	6	7.9%	121	1,687
1979	317	130	7	8.3%	150	2,017
1980	377	159	8	8.7%	187	2,414
1981	457	193	13	9.4%	241	2,906
1982	498	243	13	10.0%	309	3,457
1983	507	300	12	10.4%	373	4,025
1984	538	354	14	10.7%	445	4,640
1985	592	417	14	10.8%	516	5,317
1986	626	485	14	10.9%	594	6,038
1987	671	631	17	10.9%	667	6,728

Year	Base CPP Contributions Paid in Alberta <sup>(1)</sup>	Base CPP Benefits Paid in Alberta <sup>(2)(3)</sup>	Alberta Share of Base CPP Operating Expenses <sup>(4)</sup>	Base CPP Nominal Rate of Return <sup>(5)(6)(7)</sup>	Net Investment Income	Base Asset Balance at Dec. 31
1988	755	750	14	11.0%	749	7,468
1989	850	850	22	11.3%	854	8,300
1990	956	950	19	11.4%	958	9,245
1991	1,029	1,068	15	11.2%	1,046	10,237
1992	1,092	1,213	24	11.0%	1,134	11,226
1993	1,177	1,343	21	10.9%	1,229	12,268
1994	1,268	1,452	27	11.0%	1,355	13,412
1995	1,345	1,535	25	11.3%	1,524	14,721
1996	1,448	1,632	30	11.0%	1,628	16,135
1997	1,708	1,719	36	10.8%	1,763	17,851
1998	1,978	1,810	45	10.9%	1,976	19,950
1999	2,244	1,889	35	1.7%	346	20,616
2000	2,694	1,983	44	9.9%	2,100	23,383
2001	3,215	2,095	47	6.2%	1,501	25,957
2002	3,657	2,234	56	0.3%	80	27,404
2003	4,013	2,355	70	11.1%	3,169	32,161
2004	4,270	2,517	56	8.9%	2,972	36,830
2005	4,664	2,661	64	13.2%	5,043	43,812
2006	5,235	2,807	70	14.4%	6,540	52,710
2007	5,778	2,966	82	2.7%	1,474	56,914
2008	6,221	3,113	79	-14.2%	(8,384)	51,559
2009	6,121	3,237	87	7.6%	4,065	58,421
2010	6,293	3,339	96	8.9%	5,375	66,654
2011	6,718	3,619	94	5.4%	3,713	73,372
2012	7,476	3,911	115	9.7%	7,347	84,169
2013	7,976	4,163	113	13.2%	11,441	99,310
2014	8,474	4,347	94	15.2%	15,506	118,849
2015	8,391	4,629	101	15.6%	18,935	141,445
2016	8,007	4,903	95	4.2%	6,035	150,489
2017	8,123	5,218	105	11.4%	17,400	170,689
2018	8,379	5,550	107	8.2%	14,173	187,584
2019	8,612E	5,939	105	12.4%	23,521	213,673
2020	8,095E	6,334	111	12.0%	25,840	241,163
2021	9,103E	6,650	124	13.8%	33,564	277,056

<sup>(1)</sup> Sources: ESDC CPP Contributors Reports. The 2019 - 2021 Alberta Base CPP contributions are assumed to be the same proportion of total Albertan CPP contributions in each of these three years as the total Base CPP contributions are to all CPP contributions in each of those years. The 2021 total Albertan CPP contributions were assumed to be made at the same rate of 2021 total CPP contributions as Alberta's three-year average proportion of total CPP contributions over the period of 2018 to 2020.

<sup>(2)</sup> Sources: ESDC Special Tabulation Reports, HRSDC Special Tabulation Reports

<sup>(3)</sup> Includes an addition for Alberta's estimated share of benefit payments made to individuals residing outside of Canada

<sup>(4)</sup> Sources: ESDC Income Security Program Statistics Book 1999, ESDC Quarterly Financial Reports

<sup>(5)</sup> Source: CPP 31 Actuarial Valuation

<sup>(6)</sup> Results for years 1966 to 1998 are on a cost basis, while results for years 1999 to 2021 are presented on a market value basis. The annualized rate of return for the years 1966 to 1998 calculated on a market value basis is estimated to be 9.8%.

<sup>(7)</sup> Rates of return and investment income are net of all investment expenses of the CPPIB for the year 1999 and thereafter.

**Chart B.1 – Comparison of Alberta and rest of Canada historical Base CPP net cash flow**

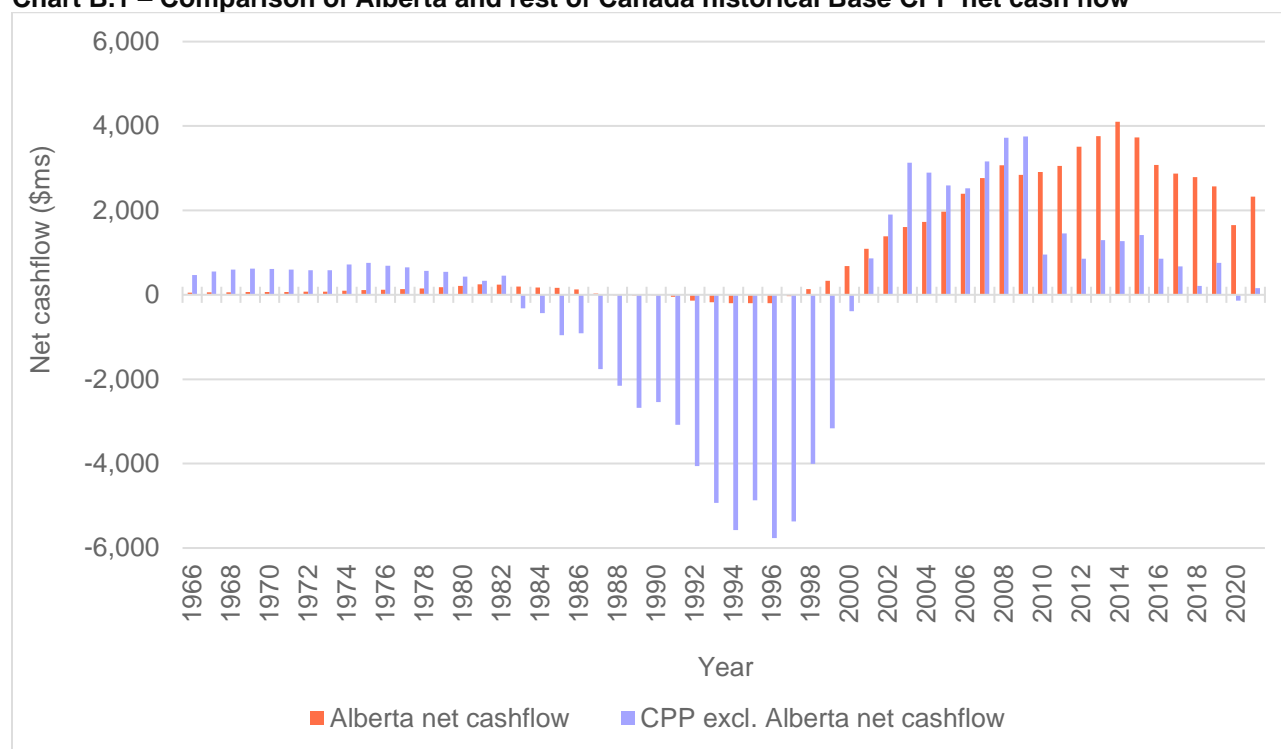


Table B.1.b below presents a historical progression on a best estimate basis of the Additional CPP assets which would be transferrable to Alberta based on the CPP legislation referenced above. The Additional contribution information for Alberta has been estimated by taking total Albertan CPP contribution information and subtracting the amounts attributable to the Albertan Base CPP (as shown in Table B.1.a). The Additional expenditure information for Alberta has been estimated by taking Alberta's estimated proportion of the total Additional CPP contributions and multiplying it by the total Additional CPP expenditure figure for each year.

**Table B.1.b – Estimated historical Additional CPP and Alberta contributions, benefits, operating expenses and rates of return (\$million except where noted)**

Year	Additional CPP Contributions Paid in Alberta <sup>(1)</sup>	Additional CPP Benefits and Expenditures Paid in Alberta <sup>(2)</sup>	Additional CPP Nominal Rate of Return <sup>(2)(3)</sup>	Net Investment Income	Additional Asset Balance at Dec. 31
2019	264	21	5.6%	7	250
2020	490	29	10.8%	55	766
2021	932	33	4.8%	61	1,726

<sup>(1)</sup> Sources: ESDC CPP Contributors Reports and CPP 31 Actuarial Valuation. The 2019 - 2021 Alberta Additional CPP contributions are assumed to be the same proportion of total Albertan CPP contributions in each of these three years as the total Additional CPP contributions are to all CPP contributions in each of those years.

<sup>(2)</sup> Source: CPP 31 Actuarial Valuation

<sup>(3)</sup> Rates of return and investment income are net of all investment expenses.

Our determination of the estimated asset transfer amounts is based on data compiled from a number of different sources, described below.

## **CPP 31 actuarial valuation**

The CPP 31 Report contains an actuarial valuation of the CPP as at December 31, 2021 and was submitted to the Minister of Finance on November 14, 2022 by the Chief Actuary. The report contains detailed historical information on the Base and Additional contributions, expenditures, investment income and asset balances from December 31, 2021 dating back to the inception of the CPP in 1966.

## **Employment and Social Development Canada reports**

Information from various ESDC reports was made available upon request to support the calculation of the asset transfer amount. The information provided was extracted from multiple ESDC reports relating to aggregate CPP contributions, net benefits, quarterly financial reports, and historical records of income security statistics.

## **Statistics Canada**

Data regarding interprovincial migration and Base CPP contributions and benefit payments made outside of Canada was sourced from various publicly available datasets published by Statistics Canada. This information was incorporated into the calculation of the Base asset transfer amount. It has been assumed that interprovincial migration has not had a material impact on the development of the Additional asset transfer amount.

## **Data limitations**

The data sources listed in the section above did not contain enough information to calculate the asset transfer amount with certainty. The best estimate figures shown in Table B.1.a and Table B.1.b represent what we have considered to be a reasonable interpretation of the available data. Significant limitations of the available data which could distort Alberta's share of the overall cash flows include:

- Data to identify the impact of interprovincial migrants and interprovincial employees was not available.
- Minor unexplained discrepancies between various data sources.
- Base CPP rate of return data for the years 1966 to 1998 was provided on a cost basis only.
- A breakdown by province of CPP operating expense figures was not available.
- A breakdown by province of CPP benefits owed to non-residents of Canada was not available.

## **Range of the asset transfer amount – Base CPP**

The potential lower estimate and upper estimate of the Base asset transfer figure as at December 31, 2021 were calculated based on alternative cash flow datasets that were adjusted for possible limitations present in the data up to December 31, 2021. The lower estimate of \$214 billion was estimated assuming contributions were 5% lower and expenditures were 5% higher for Alberta than what is shown in Table B.1.a above. Our model projects this lower estimate to grow to approximately \$262 billion as of January 1, 2027. The upper estimate of \$302 billion was calculated assuming expenditures were 5% lower for Alberta than what is shown in Table B.1.a above. Our model projects this upper estimate to grow to approximately \$362 billion as of January 1, 2027.

## **Form of assets transferred**

The transfer of amounts further to the withdrawal of a province from the CPP is to be effected primarily by the transfer of bonds of the withdrawing province and, secondarily, by the transfer of federal government bonds. Subsection 113(1)(b) of the CPP Act states that, “in the first instance and to the extent necessary,” the federal government is to transfer securities of the withdrawing province that are considered designated securities under section 2 of the CPPIB Act. “In the second instance and to the extent necessary,” the government is to transfer securities of the federal government that are designated securities under section 2 of the CPPIB Act, and by the payment of any balance then remaining in any prescribed manner. No such prescription has yet been made.<sup>32</sup>

Under section 2 of the CPPIB Act, a “designated security” is an obligation of the federal or a provincial government (or the Crown in right of the province), whose principal and interest is guaranteed by that government. Before April 1, 1998, a designated security had to be held by the erstwhile CPP Investment Fund and meet certain prescribed conditions. On or after April 1, 1998, it had to be purchased by the Minister of Finance under section 110 of the CPP Act or is purchased by the CPPIB under section 6.1 of the CPPIB Act.<sup>33</sup>

## **Asset withdrawal issues and asset transfer considerations in legislation**

Section 113(b) of the CPP Act provides that, where a regulation has been made under subsection 3(2) of the CPP Act, that the Minister of Finance shall transfer to the government of the province which is the subject of that regulation an amount calculated pursuant to section 113(2) of the CPP Act. Such a transfer is to be conducted by (i) in the first instance and to the extent necessary for that purpose, securities of that province, or of any agent of Her Majesty in right of a province, that are guaranteed as to principal and interest by that province; (ii) in the second instance and to the extent necessary for that purpose, securities of the Government of Canada, that are guaranteed as to principal and interest; and (iii) by payment of balance as determined by regulation. If such a regulation is required in the circumstances it should include the authority on the part of the Government of Canada to complete all required transfers.

Any issues as to the valuation of the assets to be transferred would be a matter for negotiation between the Government of Canada, the Government of Alberta, the CPPIB and potentially AIMCO or any other APP investment manager. As the timeframe for such transfers is not mandated, and there may be a desire to delay the transfer of some assets in order to avoid CPP liquidity issues or allow a staged transfer of invested assets, a negotiated rate of interest may be required.

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<sup>32</sup> CPP Act, s. 113(1)(b).

<sup>33</sup> CPPIB Act, s. 2.

# Appendix C: Detailed APP financial results and actuarial model

## C.1 – Financial projections

The tables below provide detailed projection results with respect to an APP as at December 31, 2021. All figures are shown in millions of dollars, except where otherwise noted.

**Table C.1.1 – Base APP using CPP legislative contribution rate of 9.90%**

Year	Pay-as-you-go Rate	Contributory Earnings	Contributions	Benefit Expenditures	Operating Expenses	Net Investment Income	Assets at 31 Dec.	Yield on Investments	Asset / Expenditure Ratio
2022	6.8%	101,888	10,087	6,784	127	(25,216)	255,015	-9.0%	33.0
2023	7.2%	107,043	10,597	7,593	134	15,288	273,174	5.9%	32.8
2024	7.4%	112,683	11,156	8,189	140	16,369	292,369	5.9%	32.7
2025	7.5%	118,286	11,710	8,784	147	17,511	312,660	5.9%	32.8
2026	7.7%	123,528	12,229	9,385	153	18,717	334,068	5.9%	32.9
2027	7.9%	128,940	12,765	9,982	159	19,990	356,682	5.9%	33.1
2028	8.0%	134,596	13,325	10,595	166	21,335	380,581	5.9%	33.4
2029	8.1%	140,456	13,905	11,225	173	22,757	405,845	5.9%	33.7
2030	8.2%	146,847	14,538	11,877	180	24,260	432,587	5.9%	34.0
2035	8.7%	179,888	17,809	15,519	218	33,614	591,342	6.0%	35.7
2040	9.3%	216,437	21,427	19,951	260	45,664	802,216	6.0%	37.8
2045	10.0%	256,742	25,417	25,481	304	61,387	1,077,679	6.0%	39.8
2050	10.8%	303,045	30,001	32,502	355	81,783	1,434,840	6.0%	41.7
2055	11.5%	356,549	35,298	40,432	413	108,208	1,897,930	6.0%	44.6
2060	11.9%	421,355	41,714	49,553	482	142,691	2,502,677	6.0%	48.81
2065	12.2%	498,404	49,342	60,459	563	187,868	3,295,195	6.0%	52.0
2070	12.5%	590,131	58,423	73,285	659	247,205	4,336,543	6.0%	56.5
2080	13.0%	820,671	81,246	106,045	893	428,049	7,511,588	6.0%	67.8
2090	13.1%	1,146,529	113,506	148,988	1,216	744,351	13,069,328	6.0%	84.1
2100	13.2%	1,604,755	158,871	209,541	1,657	1,301,974	22,870,560	6.0%	104.7

**Table C.1.2 – Base APP using minimum contribution rate of 5.91%**

Year	Pay-as-you-go Rate	Contributory Earnings	Contributions	Benefit Expenditures	Operating Expenses	Net Investment Income	Assets at 31 Dec.	Yield on Investments	Asset / Expenditure Ratio
2022	6.8%	101,888	6,022	6,784	127	(25,007)	251,159	-9.0%	32.5
2023	7.2%	107,043	6,326	7,593	134	14,919	264,678	5.9%	31.8
2024	7.4%	112,683	6,660	8,189	140	15,717	278,725	5.9%	31.2
2025	7.5%	118,286	6,991	8,784	147	16,546	293,330	5.9%	30.8
2026	7.7%	123,528	7,300	9,385	153	17,407	308,499	5.9%	30.4
2027	7.9%	128,940	7,620	9,982	159	18,302	324,281	5.9%	30.1
2028	8.0%	134,596	7,955	10,595	166	19,234	340,709	5.9%	29.9
2029	8.1%	140,456	8,301	11,225	173	20,204	357,817	5.9%	29.7
2030	8.2%	146,847	8,679	11,877	180	21,215	375,653	5.9%	29.5
2035	8.7%	179,888	10,631	15,519	218	27,298	476,902	6.0%	28.8
2040	9.3%	216,437	12,791	19,951	260	34,523	602,276	6.0%	28.4
2045	10.0%	256,742	15,173	25,481	304	43,268	754,203	6.0%	27.8
2050	10.8%	303,045	17,910	32,502	355	53,727	935,634	6.0%	27.2
2055	11.5%	356,549	21,072	40,432	413	66,169	1,151,666	6.0%	27.1
2060	11.9%	421,355	24,902	49,553	482	81,122	1,411,530	6.0%	27.1
2065	12.2%	498,404	29,456	60,459	563	99,177	1,725,326	6.0%	27.2
2070	12.5%	590,131	34,877	73,285	659	121,036	2,105,405	6.0%	27.4
2080	13.0%	820,671	48,502	106,045	893	179,720	3,126,279	6.0%	28.2
2090	13.1%	1,146,529	67,760	148,988	1,216	268,160	4,667,785	6.0%	30.0
2100	13.2%	1,604,755	94,841	209,541	1,657	404,651	7,048,801	6.0%	32.3

**Table C.1.3 – Additional APP, First and Second Additional CPP contribution legislated rates of 2.00%/8.00%**

Year	First/Second Additional Contribution Rate	First Additional Contributory Earnings	Second Additional Contributory Earnings	Contributions	Expenditures	Net Cash Flows	Net Investment Income	Assets at 31 Dec.	Yield on Investments	Asset / Expenditure Ratio
2022	1.5%	101,888	-	1,528	49	1,480	(199)	3,007	-7.7%	51.3
2023	2.0%	107,043	-	2,141	59	2,082	203	5,292	4.9%	71.7
2024	2.00% / 8.00%	112,683	4,965	2,651	74	2,577	335	8,204	5.0%	87.6
2025	2.00% / 8.00%	118,286	9,825	3,152	94	3,058	501	11,764	5.1%	98.0
2026	2.00% / 8.00%	123,528	10,324	3,296	120	3,176	696	15,636	5.1%	100.6
2027	2.00% / 8.00%	128,940	10,795	3,442	155	3,287	898	19,821	5.1%	99.8
2028	2.00% / 8.00%	134,596	11,316	3,597	199	3,399	1,117	24,336	5.1%	97.3
2029	2.00% / 8.00%	140,456	11,803	3,753	250	3,503	1,352	29,191	5.1%	93.9
2030	2.00% / 8.00%	146,847	12,401	3,929	311	3,618	1,605	34,414	5.1%	90.3
2035	2.00% / 8.00%	179,888	14,694	4,773	775	3,999	3,152	66,186	5.1%	72.8
2040	2.00% / 8.00%	216,437	17,058	5,693	1,638	4,056	5,697	108,721	5.6%	58.1
2045	2.00% / 8.00%	256,742	18,488	6,614	3,078	3,536	8,712	165,000	5.6%	47.7
2050	2.00% / 8.00%	303,045	19,501	7,621	5,344	2,277	12,398	233,493	5.6%	39.6
2055	2.00% / 8.00%	356,549	25,063	9,136	8,456	680	16,801	315,215	5.6%	34.3
2060	2.00% / 8.00%	421,355	32,117	10,996	12,585	(1,589)	21,992	411,339	5.6%	30.3
2065	2.00% / 8.00%	498,404	38,399	13,040	17,706	(4,666)	27,967	521,750	5.6%	27.8
2070	2.00% / 8.00%	590,131	45,796	15,466	23,430	(7,964)	34,835	648,781	5.6%	26.3
2080	2.00% / 8.00%	820,671	65,272	21,635	37,573	(15,937)	51,923	964,941	5.6%	24.6
2090	2.00% / 8.00%	1,146,529	93,344	30,398	55,242	(24,844)	75,315	1,398,819	5.6%	24.4
2100	2.00% / 8.00%	1,604,755	133,506	42,776	78,789	(36,013)	108,630	2,017,580	5.6%	24.7



**Table C.1.4 – Additional APP, First and Second Additional minimum contribution rates of 1.98%/7.92%**

Year	First/Second Additional Contribution Rate	First Additional Contributory Earnings	Second Additional Contributory Earnings	Contributions	Expenditures	Net Cash Flows	Net Investment Income	Assets at 31 Dec.	Yield on Investments	Asset / Expenditure Ratio
2022	1.5%	101,888	-	1,528	49	1,480	(199)	3,007	-7.7%	51.3
2023	2.0%	107,043	-	2,141	59	2,082	203	5,292	4.9%	71.7
2024	1.98% / 7.92%	112,683	4,965	2,651	74	2,577	335	8,204	5.0%	87.6
2025	1.98% / 7.92%	118,286	9,825	3,115	94	3,022	500	11,726	5.1%	97.7
2026	1.98% / 7.92%	123,528	10,324	3,259	120	3,139	693	15,558	5.1%	100.1
2027	1.98% / 7.92%	128,940	10,795	3,403	155	3,247	893	19,698	5.1%	99.1
2028	1.98% / 7.92%	134,596	11,316	3,556	199	3,357	1,109	24,164	5.1%	96.6
2029	1.98% / 7.92%	140,456	11,803	3,710	250	3,460	1,342	28,966	5.1%	93.1
2030	1.98% / 7.92%	146,847	12,401	3,884	311	3,573	1,592	34,131	5.1%	89.6
2035	1.98% / 7.92%	179,888	14,694	4,718	775	3,944	3,122	65,533	5.1%	72.1
2040	1.98% / 7.92%	216,437	17,058	5,628	1,638	3,990	5,636	107,530	5.6%	57.4
2045	1.98% / 7.92%	256,742	18,488	6,538	3,078	3,460	8,608	163,021	5.6%	47.1
2050	1.98% / 7.92%	303,045	19,501	7,533	5,344	2,189	12,237	230,417	5.6%	39.1
2055	1.98% / 7.92%	356,549	25,063	9,031	8,456	575	16,559	310,610	5.6%	33.8
2060	1.98% / 7.92%	421,355	32,117	10,870	12,585	(1,715)	21,637	404,611	5.6%	29.8
2065	1.98% / 7.92%	498,404	38,399	12,890	17,706	(4,816)	27,457	512,101	5.6%	27.3
2070	1.98% / 7.92%	590,131	45,796	15,288	23,430	(8,142)	34,114	635,142	5.6%	25.7
2080	1.98% / 7.92%	820,671	65,272	21,386	37,573	(16,186)	50,525	938,549	5.6%	24.0
2090	1.98% / 7.92%	1,146,529	93,344	30,049	55,242	(25,194)	72,687	1,349,261	5.6%	23.6
2100	1.98% / 7.92%	1,604,755	133,506	42,284	78,789	(36,505)	103,790	1,926,388	5.6%	23.6

## Sensitivity analysis

The results of our sensitivity analysis is summarized in the following two tables. Our sensitivity analysis adjusts each of the indicated assumptions up or down (the specific adjustments are outlined in table C.4.4), while leaving the other assumptions the same. This will allow the user to understand the impact each of these assumptions have on the results, in isolation. We caution the user that there may be interaction among the various assumptions, so the actual impact on the minimum contribution rate from a series of adjustments to the assumptions may not equal the simple addition of these individual sensitivity results.

**Table C.1.5 – Sensitivity of the Base APP contribution rates to individual assumptions**

Assumption	Scenario	Minimum contribution rate (%)	Change relative to the Best Estimate (%)	Pay-as-you-go Rates (%)	
				2025	2060
	Best Estimate	5.91		7.55	11.87
1. Total Fertility Rate	Lower Cost	5.80	-0.11	7.55	11.29
	Higher Cost	6.02	0.11	7.55	12.54
2. Mortality Rates	Lower Cost	5.55	-0.36	7.55	11.47
	Higher Cost	6.27	0.36	7.55	12.28
3. Net Migration Rates	Lower Cost	5.83	-0.08	7.55	12.90
	Higher Cost	5.99	0.08	7.55	10.96
4. Price Increases	Lower Cost	5.67	-0.24	7.59	11.56
	Higher Cost	6.15	0.24	7.51	12.21
5. Real Wage Increases	Lower Cost	5.12	-0.79	7.64	13.03
	Higher Cost	6.70	0.79	7.46	10.86
6. Future Investment Returns	Lower Cost	1.65	-4.26	7.55	11.87
	Higher Cost	10.75	4.84	7.55	11.87

**Table C.1.6 – Sensitivity of the Additional APP contribution rates to individual assumptions**

Assumption	Scenario	First Additional Minimum Contribution Rate (%)	Second Additional Minimum Contribution Rate (%)	Change Relative to the Best Estimate (%)
	Best Estimate	1.98	7.92	
1. Mortality Rates	Lower Cost	1.90	7.60	(0.08) / (0.32)
	Higher Cost	2.05	8.20	0.07 / 0.28
2. Price Increases	Lower Cost	1.93	7.72	(0.05) / (0.20)
	Higher Cost	2.03	8.12	0.05 / 0.20
3. Real Wage Increases	Lower Cost	1.82	7.28	(0.16) / (0.64)
	Higher Cost	2.15	8.60	0.17 / 0.68
4. Future Investment Returns	Lower Cost	1.40	5.60	(0.58) / (2.32)
	Higher Cost	2.83	11.32	0.85 / 3.40

### Inter-valuation Investment Experience

The CPP31 report includes an assessment of the impact of higher and lower levels of investment returns over a short period on the contribution requirements of the CPP.

### Base APP

Under the Base CPP, results are shown assuming asset returns had been higher or lower than the actual returns during the inter-valuation period resulting in asset values at December 31, 2021 being 10% or 20% higher or lower than the actual value of assets for the Base CPP. We have replicated this sensitivity scenario for the Base APP by assuming the asset value for the Base APP would be 10% or 20% higher or lower than the assets assumed in the best estimate scenario. The table below shows the contribution requirements based on different levels of assets as at December 31, 2021 while under best estimate population growth assumptions.

**Table C.1.7 – Sensitivity of the Base APP contribution rates based on different asset values as at December 31, 2021**

Assets at 31 Dec 2021 (\$ billion)		Minimum Contribution Rates	Difference
20% lower	\$222	6.78%	0.87%
10% lower	\$249	6.35%	0.44%
Actual	\$277	5.91%	0.00%
10% higher	\$305	5.48%	-0.43%
20% higher	\$332	5.04%	-0.87%

As expected, lower asset values result in increased contribution requirements while higher asset values result in decreased contribution requirements.

### Additional APP

Since the Additional CPP is still in its early years, the asset value under the Additional CPP is small and thus different levels of assets as at December 2021 do not have a material impact on the First and Second Additional Minimum Additional Contribution Rates. The CPP 31 Report illustrates the estimated impact on contribution levels under the Additional CPP based on different levels of assets as at December 31, 2045, by assuming a temporary deviation from the assumed asset returns in 2043 to 2045. We have prepared the sensitivity for Additional APP using these same parameters, while maintaining all other assumptions in line with best-estimate assumptions of this report.

**Table C.1.8 – Sensitivity of the Additional APP contribution rates based on different asset values as at December 31, 2045**

Projected Assets at 31 Dec 2045 (\$ billion)		Assumed Asset Returns 2043-2045	First / Second Additional Minimum Contribution Rates	Difference
20% lower	\$132	-2.2%	2.12% / 8.48%	0.14% / 0.56%
10% lower	\$148	1.9%	2.04% / 8.16%	0.06% / 0.24%
Actual	\$165	5.6%	1.98% / 7.92%	
10% higher	\$181	9.2%	1.92% / 7.68%	-0.06% / -0.24%
20% higher	\$198	12.5%	1.86% / 7.44%	-0.12% / -0.48%

Investment experience also has predictable effects on contribution requirements for the Additional APP – lower asset amounts in 2045 result in increased contribution requirements while higher asset amounts in 2045 result in lower contribution requirements.

### Adverse Scenarios

The CPP 31 Report includes an assessment of downside risks on the Base CPP due to potential or emerging trends. These three potential risks have also been modelled to assess the impact on the Base APP. We have used the scenarios from the CPP 31 Report unadjusted.

**Table C.1.9 – Description of adverse scenarios**

Scenario	Description of Scenario and Assumptions
1. Change in earners and earnings distribution	<p>Instead of assuming that all earners have the same 2.9% average wage increase each year, three different wage levels are assumed to have different rates of increase between 2022 and 2045:</p> <ul style="list-style-type: none"> <li>• Low (up to 75% of average earnings) – 1.5%</li> <li>• Medium Low (75% to 150% of average earnings) – 2.6%</li> <li>• High (+150% of average earnings) – 3.5%</li> </ul>
2. Stagflation	<ul style="list-style-type: none"> <li>• High levels of inflation continue for several years gradually declining to the best estimate rate of 2% in 2032.</li> <li>• Unemployment rates increase through 2028 then gradually decrease to best-estimate rates in 2034.</li> <li>• Wage increases are higher than under best-estimate assumptions but not to the full extent of the extra inflation.</li> </ul>
3. Green Economy Transition— 3 different scenarios	<p>Reduced nominal GDP in 2030, 2050 and 2100 relative to best estimate assumptions with reduced GDP achieved by lower real wage growth without any change in employment. Scenario 1 is assumed to have the least economic impact, Scenario 3 the greater long-term economic impact while Scenario 2 has the worse impact up to 2050, but less economic impact than Scenario 3 in 2100.</p> <p>Asset returns are assumed lower in all three scenarios.</p>

Following are the Minimum Contribution Rate requirements for the five downside risk scenarios described above.

**Table C.1.10 – Contribution Rates of the Base APP under various adverse scenarios**

Scenario	Minimum Contribution Rate	Difference
Best Estimate	5.91%	
Change in earners and earnings distribution	5.77%	-0.14%
Stagflation	5.71%	-0.20%
Climate Change - Scenario 1	5.80%	-0.11%
Climate Change - Scenario 2	5.81%	-0.10%
Climate Change - Scenario 3	6.32%	0.41%

An explanation of how these scenarios impact the APP differently from the CPP has been included in the report following Table 6b.

### Actuarial opinion

- The data used for the calculations in this report are based on publicly available sources, and available only in aggregated form. In our opinion, the data on which the calculations are based are sufficient and reliable based on the terms of the engagement for this report.
- In our opinion, the assumptions used for the purpose of the calculations are reasonable and appropriate, both individually and in aggregate.
- In our opinion, the methods employed for the calculations are appropriate for the purpose of the report.
- The calculations included in this report and the actuarial information provided have been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada.

[Redacted to protect privacy - Original signed]

August 2023

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Date

August 2023

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Date

## C.2 – Data for actuarial model

### Population data

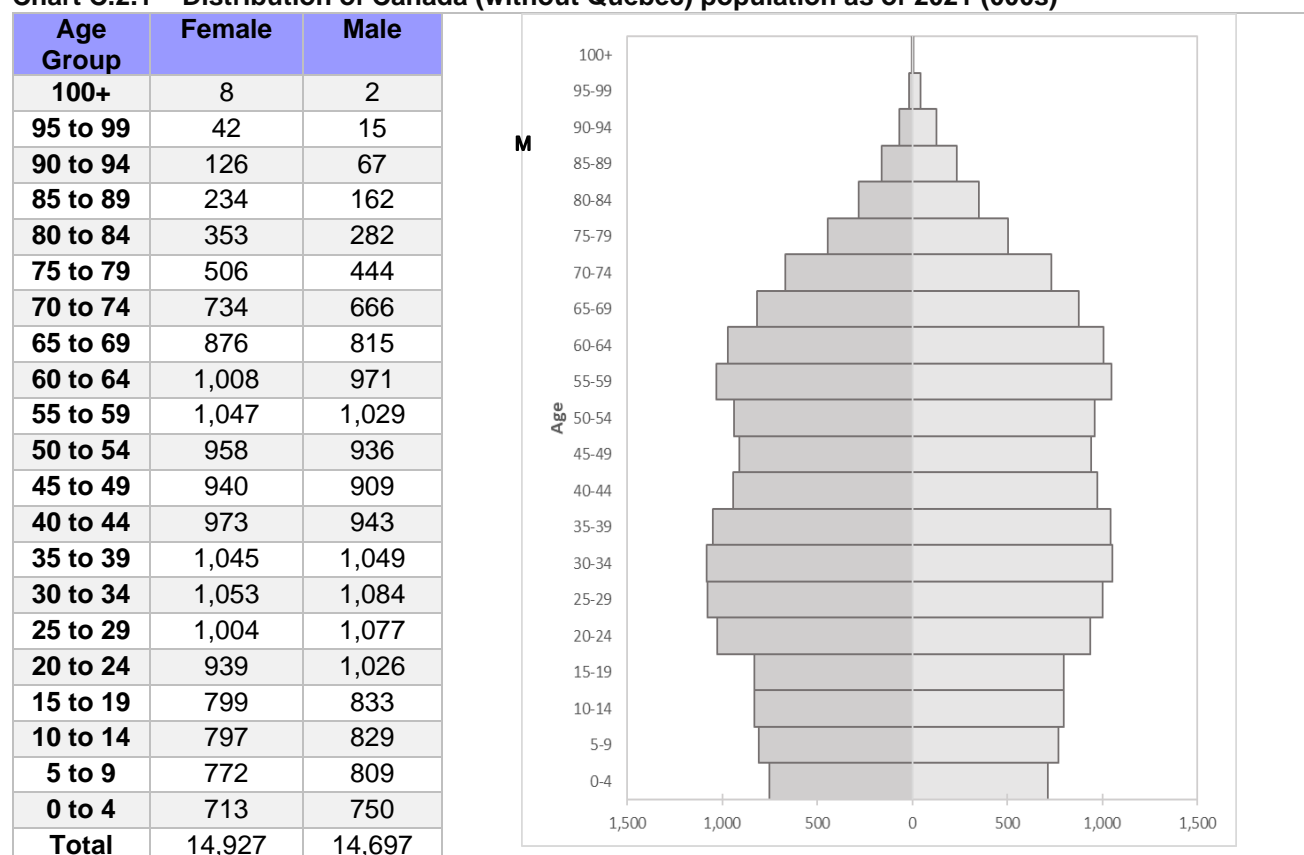
The data required for the valuation of an APP are extensive. As of December 31, 2021, required data include the Alberta population, the distribution of earnings among the employed population, and the distribution of benefits in payment, all segregated by age and sex. Specific assumptions such as the distribution of retirement by age, and collection of contributions are determined with reference to the application of the CPP provisions and historical experience.

Below is a summary of the data used in our analysis, and the assumptions we have made with respect to the data where they are not readily available from publicly available information. For example, assumptions are made with respect to the age distribution of pensioners and the average pension by age for current pensioners as at December 31, 2021 for the CPP and starting pensioners for a potential APP.

### Canada (without Québec) population and wages

We have used Statistics Canada's projected population information for Canada (without Québec) (from Statistics Canada's estimate from the 2016 census) to reproduce the results from the CPP 31 Report. The chart below shows the distribution of the projected 2021 population by age group.

Chart C.2.1 – Distribution of Canada (without Québec) population as of 2021 (000s)



In addition, we have used CPP31 Table 58 (Average Annual Earnings) for 2022 by age group in our reproduction of the CPP 31 Report results. The following table provides a distribution of wages by age.

**Table C.2.1 – Average annual earnings by age group, 2022**

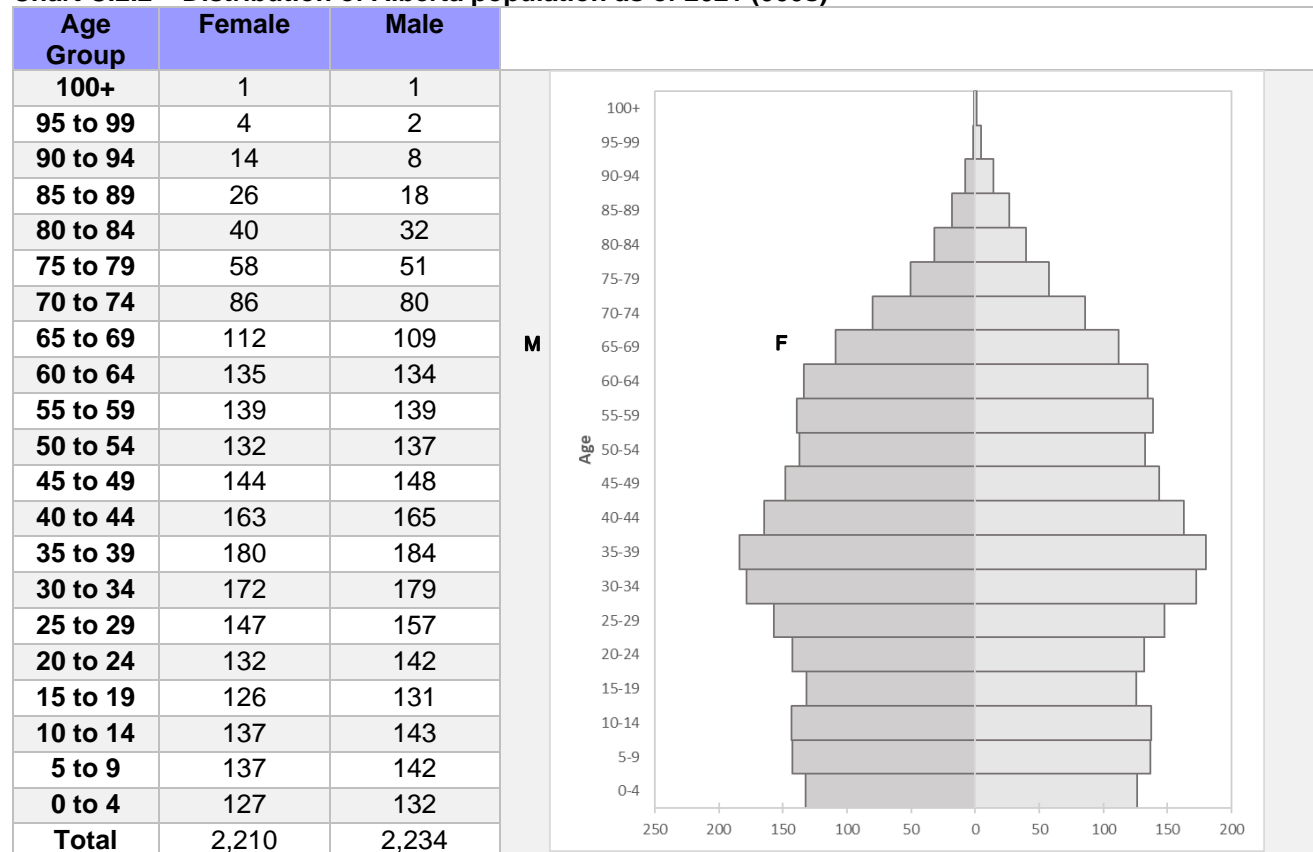
<b>Age Group</b>	<b>Female</b>	<b>Male</b>
<b>20 to 24</b>	\$23,168	\$28,844
<b>25 to 29</b>	\$39,661	\$47,880
<b>30 to 34</b>	\$45,928	\$59,805
<b>35 to 39</b>	\$50,383	\$65,016
<b>40 to 44</b>	\$54,550	\$67,857
<b>45 to 49</b>	\$55,927	\$69,087
<b>50 to 54</b>	\$55,028	\$67,653
<b>55 to 59</b>	\$50,474	\$62,875
<b>60 to 64</b>	\$41,524	\$54,073
<b>65 to 69</b>	\$28,459	\$38,633

We compared the Statistics Canada summary information to those disclosed in the CPP 31 Report to ensure that the information we used is consistent with those used for the CPP 31 Report.

## Alberta population and wages

To prepare the calculations with respect to an APP, we have also utilized Alberta population and wage information from Statistics Canada (consistent with the Canada without Québec information outlined above). The summary of population and wages by age groups are provided below.

**Chart C.2.2 – Distribution of Alberta population as of 2021 (000s)**



**Table C.2.2 – Average annual earnings by age group for Alberta employees, 2017 to 2019**

Age Group	Female	Male
16 to 24	\$16,733	\$22,867
25 to 34	\$44,200	\$68,167
35 to 44	\$57,900	\$87,667
45 to 54	\$62,167	\$97,200
55 to 64	\$48,067	\$79,733
65+	\$23,433	\$38,567

Average pensionable earnings for Alberta are determined using an assumed 30%/40%/30% distribution of low/medium/high income earners and the same coefficient of variation that produced a close fit with CPP average pensionable earnings provided in the CPP31 report.

## Starting number of pensioners and starting pension amounts

Since information (number and distribution) relating to Alberta CPP pensioners is not publicly available, we have extrapolated the starting pensioners and beneficiaries based on the summary data provided in the CPP 31 Report and prorated the figures for Alberta based on the retirement eligible population in Alberta compared to the Canada (less Québec) retirement eligible population.



We have assumed that all pensioners will have the same amount of pension as a percentage of covered earnings and that Alberta pensioners will have starting pension amounts the same as that for CPP pensioners.

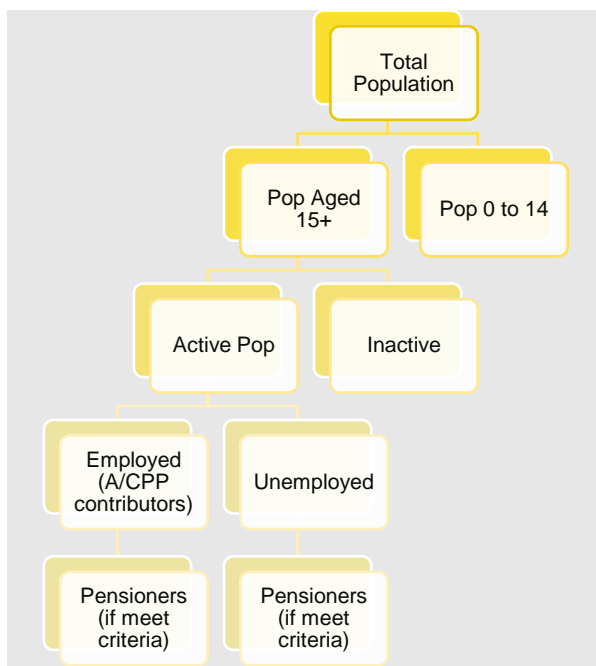
## C.3 – Methods in actuarial model

Our modelling projects future CPP and APP contributors, pensioners and finances through projecting the general population, general economy, labour force, wages and pensions. The actuarial valuation uses the following steps:

- Projection of Canada's future demographic and economic environment.
- Projection factors are determined and used in combination with the demographic/economic framework to estimate future cash flows and reserves.

The minimum contribution rate is then calculated such that the ratio of funds to expenditures remain stable for the next 60 to 80 years. For the Base CPP and Base APP the test for asset-to-expenditure ratios to be equal uses years 13 and 63 after the valuation date while for the Additional CPP and Additional APP, the years used are 2088 and 2098.

The pay-as-you-go rate is the contribution rate applied to total contributory earnings to match the total expenditure in a given year.



### Projection of population

The projection of population begins with the population data as at July 1, 2021. From there, assumptions on fertility, net migration, and mortality are applied to obtain the projected total active population. The employed population is then determined using assumed labour force participation rates and unemployment rates. Further, by applying assumptions on retirement, disability and death, the model estimates the population eligible for benefits.

## **Projection of CPP and APP income and expenditure**

The projection addresses all CPP and possible APP revenue and expenditure items. Projections of pensions are performed following a year-by-year cohort methodology. For each year up to 2100, the number of contributors and pensioners, and the dollar value of contributions, benefits and administrative expenditure, is estimated.

Once the projections of the employed population, as described in the previous section, are complete, contribution income is then determined from the proportion of contributors, projected total contributory earnings, and the contribution rate.

Benefit expenses are payable amounts based on the CPP provisions as at December 31, 2021, and the projected population eligible for benefits. Investment income is based on the assumed yield on the beginning-of-year reserve and net cash flow in the year. The CPP's administrative expenses are modelled as a percentage of employment earnings. Finally, the end-of-year reserve is the beginning-of-year reserve plus the net result of cash inflow and outflow.

## **Calculation of minimum contribution rates under an APP**

For the purposes of determining the minimum required contribution rate for the Base APP, we have combined the benefits under the Base CPP and calculated only one steady state contribution rate, using the same methodology as the CPP 31 Report (i.e., so that the resulting asset-to-expenditure ratios are the same in the 13<sup>th</sup> and the 63<sup>rd</sup> years following the valuation date).

The additional minimum required contributions under the CPP are defined specifically in the *Calculation of Contribution Rates Regulations, 2018* as the lowest level contribution rates, applicable after the end of the review period, to the nearest 0.0001 percentage points, such that the following conditions are met:

- the present value of projected additional open group obligations are at least equal to the projected additional assets and present value of the projected additional contributions (open group assets);
- the projected asset/expenditures (A/E) ratio of the additional plan is the same in the 50<sup>th</sup> and 60<sup>th</sup> years following the end of the review period, but no earlier than in the years 2088 and 2098, respectively; and
- the Second Additional Minimum Contribution Rate equals the First Additional Minimum Contribution Rate multiplied by the ratio of the earnings replacement rate of the second tier of the additional plan to the replacement rate of the first tier (which equals 4).

For the purposes of determining the additional minimum required contributions under an APP in this report, we have not performed the open group calculation described in the first condition above. We do not believe that the open group calculation would have any impact on the resulting additional minimum contribution rates determined. As such, we have also not replicated the open group calculations for the CPP disclosed in the CPP 31 Report.

## **C.4 – Assumptions**

The main actuarial assumptions used are summarized in the following table. The results provided in this report are based mainly on the assumptions used in the CPP 31 Report. Adjustments to any assumptions and methodology as a result of incomplete data in the CPP 31 Report are summarized in the following sections. All rates and percentages are annualized unless otherwise noted.

**Table C.4.1 – Summary of assumptions**

	CPP 31 Report	Adaptation for APP
<b>Fertility</b> - initial rate - ultimate rate	Per CPP 31 Report 1.54 (2029+)	See Table C.4.3 Same
<b>Sex ratio of newborns</b>	1.053	Same
<b>Migration</b>	Ultimate 0.64% + 0.04% of population with age/sex distribution from Statistics Canada	Same percent as for CPP but Alberta age distribution from Statistics Canada migration estimates for 2015/16 to 2019/20
<b>Mortality – population</b>	(CLT 1-year table: 2019 Tables) with improvements as per Table 41 in the CPP 31 Report	Same
<b>Mortality – pensioners</b>	Up to age 60 – population 60+ - CPP	Same
<b>Mortality – disabled pensioners</b>	See Table 93 of CPP 31 Report	Used 10 times population mortality
<b>Labour force, participation, employment and unemployment rates</b>	See Table 50 of the CPP 31 Report	Same
<b>CPP contributors (% of employed population)</b>	See Table 62 of CPP 31 Report	Same
<b>Real wage increase</b>	-2.4% in 2022, 0.3% in 2023 increasing to 0.9% in 2026+	Same
<b>Inflation</b>	6.9% in 2022, 3.0% in 2023, 2.5% in 2024, 2.3% in 2025 and 2.0% all years thereafter	Same
<b>% of contributors married</b>	See Table 94 of CPP 31 Report	Same
<b>Disability incidence (per 1,000 eligible)</b>	See Table 90 of CPP 31 Report	Same
<b>Avg. number of children</b>	Estimated	Same
<b>Death benefit</b>	% of children benefit	Same
<b>Retirement pension take-up rates</b>	See Table 81 of CPP 31 Report	Same
<b>Operating expenses</b>	Rate that produces 1 <sup>st</sup> year actual. (CPP report uses total earnings as a base)	Same percentage of covered wages as CPP
<b>Real rate of return (average 2022-2100)</b>	See Table 72 of CPP 31 Report	Same

### **Mortality rates and life expectancies**

The model uses the same Statistics Canada Life Tables (CLT 1-year average table: 2019 Tables) with future mortality improvement as the CPP 31 Report. The future mortality improvements rates from the CPP 31 Report were interpolated to obtain specific age-related mortality improvement rates to be used for our model.

**Table C.4.2 – Life expectancy under mortality assumptions**

Canadian Life Expectancy	Males	Females
at birth in 2022	86.7 years	90.0 years
at age 65 in 2022	21.3 years	23.8 years

**Age-specific and total fertility rates**

The model uses the fertility rates provided in CPP 31 Report and fitted a fertility curve to obtain age specific fertility rates. Sample fertility rates are provided in Table C.4.3.

**Table C.4.3 – Age-specific and total fertility rates (TFR) – replication of CPP 31 Report**

	2022	2023	2024	2025	2026	2027	2028	2029
15-19	0.0057	0.0055	0.0053	0.0052	0.0050	0.0048	0.0047	0.0045
20-24	0.0285	0.0274	0.0263	0.0253	0.0242	0.0231	0.0220	0.0209
25-29	0.0787	0.0780	0.0774	0.0768	0.0762	0.0756	0.0750	0.0745
30-34	0.1080	0.1095	0.1109	0.1124	0.1139	0.1154	0.1168	0.1183
35-39	0.0610	0.0628	0.0645	0.0663	0.0680	0.0697	0.0714	0.0732
40-44	0.0136	0.0140	0.0144	0.0148	0.0152	0.0156	0.0161	0.0165
45-49	0.0009	0.0009	0.0009	0.0009	0.0009	0.0010	0.0010	0.0010
TFR	1.48	1.49	1.50	1.51	1.52	1.53	1.54	1.54

**Retirement rates**

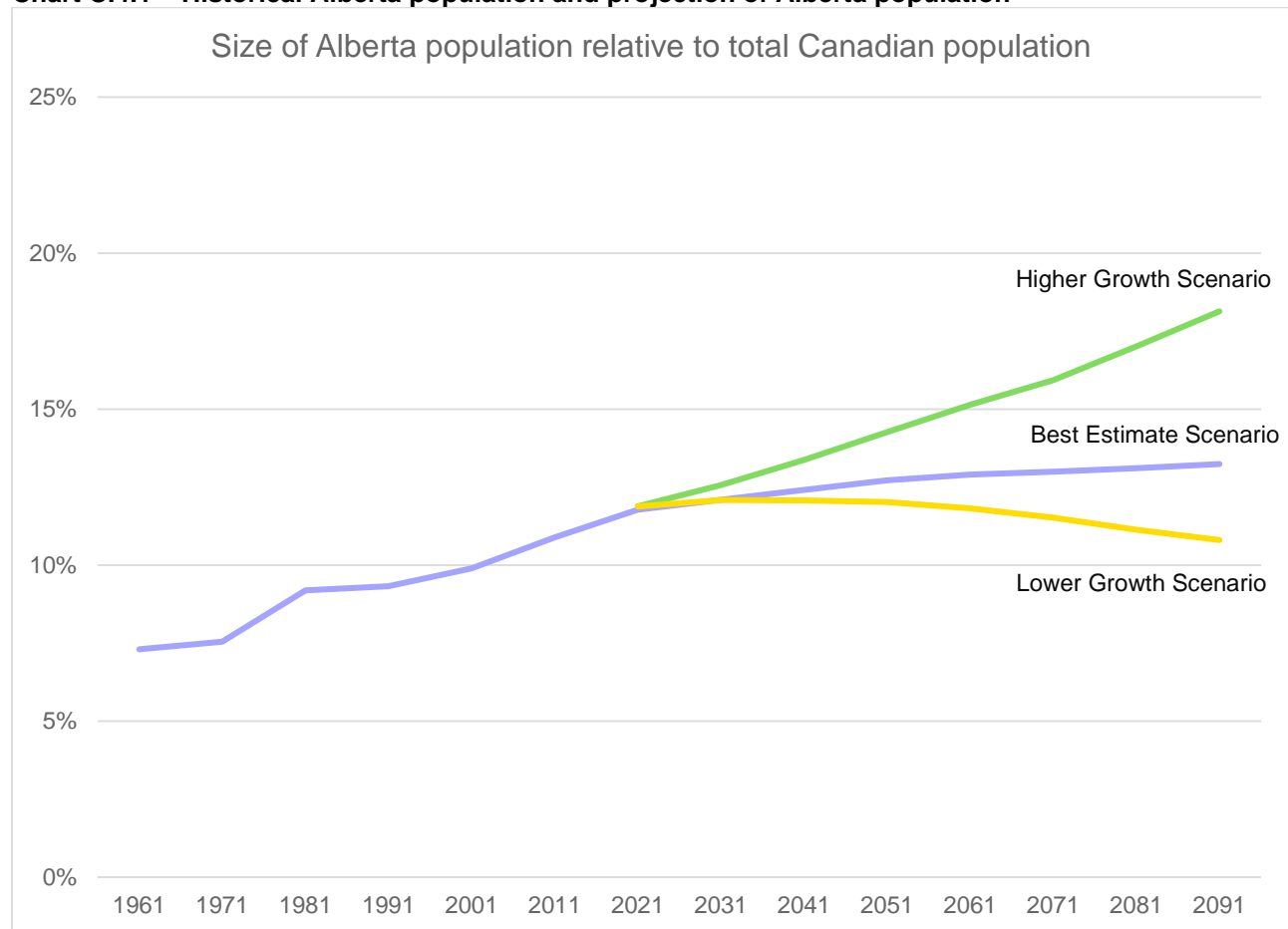
The model uses the retirement rates provided in CPP 31 Report.

**Assumptions used for the Higher Growth and Lower Growth projection scenarios**

Alberta currently accounts for about 11.6% of the population in Canada. Using the assumptions outlined in the CPP 31 Report, Alberta's population will grow to around 13.3% of Canada in 2100.

Based on a review of the components of historical Alberta population growth compared to that of Canada, we believe that the assumptions in the CPP 31 Report represent a reasonable expectation of how Alberta's population might grow in the future, and therefore will produce a reasonable long term projection of Alberta's size compared to Canada. In order to illustrate how the cost of an APP may change if Alberta's growth is higher or lower than that assumed, we have also calculated the required contributions under an APP with a higher growth and a lower growth scenario. Under the higher growth scenario, Alberta will maintain a higher rate of growth (comparable to the recent average rate) relative to Canada throughout the projection period, with an ultimate population at around 19% of the total Canadian population. Under the lower growth scenario, Alberta's population will become a smaller proportion of Canada's population – roughly 10% of the Canadian population.

**Chart C.4.1 – Historical Alberta population and projection of Alberta population**



The table below shows the underlying assumptions under the higher and lower growth scenarios we have used to determine the contribution requirements under an APP.

**Table C.4.3 – Comparison of the assumptions used in the Higher Growth and Lower Growth population / economic projection scenarios**

Scenario	Best Estimate	Lower Growth	Higher Growth
Relative size in 2050	12.6%	12.1%	13.9%
Relative size in 2100	13.3%	10.6%	18.8%
Fertility	1.49 to 1.54 (2027)	1.65 to 1.55 (2027)	1.66 to 1.71 (2031)
Migration	1.23% in 2022 decreasing to 0.68% in 2031, remaining constant thereafter	1.30% in 2022 1.6% in 2023, decreasing to 0.45% in 2031, remaining constant thereafter	1.30% in 2022 1.6% in 2023, decreasing to 0.90% in 2031, remaining constant thereafter
Economic growth	1.70%	1.40%	2.00%
Real wage growth	0.90%	0.70%	1.10%
Inflation	2.00%	2.00%	2.00%
Investment returns (Base APP)	6.02%	6.02%	6.02%

The values for all other assumptions are similar across scenarios.

## Assumptions for sensitivity analysis

We have used the same sensitivity assumptions as those used in the CPP 31 Report.

**Table C.4.4 – Individual sensitivity test assumptions**

Assumption	Lower Cost	Best Estimate	Higher Cost
1. Total Fertility Rate	1.84	1.54	1.24
2. Mortality: Canadian Life Expectancy at age 65 in 2050 with future improvements	Males: 20.9 Females: 23.3	Males: 23.1 Females: 25.4	Males: 25.2 Females: 27.4
3. Net Migration Rate	0.88%	0.68%	0.48%
4. Price Increases	3.0%	2.0%	1.0%
5. Real Wage Increases – Base APP Real Wage Increases – Additional APP	1.5% 0.3%	0.9% 1.0%	0.3% 1.5%
6. Real Rate of Return on Investments – Base APP Real Rate of Return on Investments – Additional APP	5.29% 4.47%	3.69% 3.72%	2.09% 2.07%

## Assumptions for Adverse Scenarios Analysis

**Table C.4.5 – Wage increase assumption used in change in earners and earnings distribution adverse scenario**

Average Wage of Earners in Group	Best Estimate	Alternate Scenario
Low – 45% of average earnings	2.9%	1.5%
Medium – 85% of average earnings	2.9%	2.6%
High – 167% of average earnings	2.9%	3.5%

*Note: These changes are up to 2045 only. The proportion of earners assumed in the low, medium and high-income groups are 30%, 40% and 30%, respectively.*

**Table C.4.6 – Assumptions used in stagflation adverse scenario**

Year	Inflation Rate		Unemployment Rate		Nominal Wage Increase	
	Best Estimate	Stagflation	Best Estimate	Stagflation	Best Estimate	Stagflation*
2022	6.9%	6.9%	6.0%	6.0%	3.1%	3.1%
2023	3.0%	10.0%	5.7%	5.7%	2.9%	6.4%
2024	2.5%	10.0%	5.8%	8.0%	2.9%	6.7%
2025	2.3%	9.0%	5.9%	9.0%	2.9%	6.3%
2026	2.0%	8.0%	6.0%	10.0%	2.9%	6.5%
2027	2.0%	7.0%	6.1%	9.5%	2.9%	6.4%
2028	2.0%	6.0%	6.1%	9.0%	2.9%	6.1%
2029	2.0%	5.0%	6.1%	8.5%	2.9%	5.6%
2030	2.0%	4.0%	6.1%	8.1%	2.9%	4.9%
2031	2.0%	3.0%	6.1%	7.6%	2.9%	3.9%
2032	2.0%	2.0%	6.1%	7.1%	2.9%	2.9%
2033	2.0%	2.0%	6.1%	6.6%	2.9%	2.9%
2034	2.0%	2.0%	6.1%	6.1%	2.9%	2.9%

*\* Assumes only 50% of the additional inflation is added to nominal wage increase rate*

*No change in asset returns is assumed.*

**Table C.4.7 – Assumptions used in Transition to Green Economy adverse scenarios**

Scenario	Cumulative Effect on Nominal GDP (starting 2020)			Asset Returns
	2030	2050	2100	
1	-5%	-10%	-10%	-0.09%
2	0	-15%	-20%	-0.17%
3	0	-8%	-30%	-0.31%

Note: Lower nominal GDP totals achieved by lower real wage growth (no change in employment).

## C.5 – Detailed CPP provisions for modelling

The following is a summary of the main plan provisions currently in effect for the CPP. These provisions are based upon the CPP Act and the regulations made thereunder (the CPP Regulations), as well as information from historical CPP annual reports and actuarial reports. A summary of the key plan provision differences found in the QPP is shown at the end of this section.

### Definitions

**Additional CPP:** The additional CPP refers to the enhancement to the CPP introduced in *An Act to Amend the Canada Pension Plan*, the CPPIB Act and the Federal ITA. The additional CPP was implemented as of January 1, 2019. The additional CPP has two (first and second) parts, and the corresponding first and second additional contribution rates and pensionable earnings on which contributions are made are being phased in over a seven-year period from 2019 to 2025.

**Base CPP:** The Base CPP refers to that part of the CPP other than the part relating to the additional CPP. Prior to January 1, 2019, the CPP consisted only of the Base CPP.

**Contributory Period:** The contributory period is in respect of the Base CPP and is the number of months from attainment of age 18 (or from January 1, 1966, if later) to the earliest of:

- the month in which the contributor dies,
  - the month before the one in which the retirement pension commences, and
  - the month before the one in which the contributor reaches 70 years of age,
- less the number of months during which the contributor received a CPP or QPP disability benefit (including the three-month waiting period), or during which the contributor had at least one eligible child under seven years of age and had earnings for that year lower than the YBE. The contributory period excludes periods on or after January 1, 2012 during which beneficiaries contribute while in receipt of a retirement pension.

**First additional contributory period:** The first additional contributory period is in respect of the additional CPP and is the number of months from attainment of age 18 (or from January 1 2019, if later) to the earliest of:

- the month in which the contributor dies,
- the month before the one in which the retirement pension commences and
- the month before the one in which the contributor reaches 70 years of age.

**Second additional contributory period:** The second additional contributory period is in respect of the additional CPP and is the number of months from attainment of age 18 (or from January 1, 2024, if later) to the earliest of:

- the month in which the contributor dies,
- the month before the one in which the retirement pension commences and
- the month before the one in which the contributor reaches 70 years of age.

**Year's Basic Exemption (YBE):** The YBE for a calendar year is the minimum employment earnings required to participate in the CPP. As well, contributions are waived on earnings up to the YBE. The YBE has been frozen at \$3,500 per year since 1996.

**Year's Maximum Pensionable Earnings (YMPE):** The YMPE for a calendar year is the limit to which employment and self-employment earnings are subject to contributions and first additional contributions for purposes of the Base CPP and Additional CPP, respectively. The YMPE increases each year based on average weekly earnings increases measured using publications from Statistics Canada.

**Year's Additional Maximum Pensionable Earnings (YAMPE):** The YAMPE for a calendar year is the limit to which employment and self-employment earnings are subject to second additional contributions above the YMPE for the purposes of the Additional Plan. The YAMPE will be introduced in the year 2024. The YAMPE will first be set at 107% of the YMPE in 2024, and then at 114% of the YMPE in 2025 and thereafter. The YAMPE is thus set to increase in tandem with the YMPE after 2025.

## **Eligibility**

### **Retirement benefits**

- Any person who has attained age 60 and made at least one contribution to the CPP or has received at least one valid contribution from credit splitting is eligible to receive retirement benefits from the plan. This includes both the Base CPP retirement benefit and the Additional CPP retirement benefit.

### **Post-retirement benefits**

- Since 2012, individuals under the age of 65 who receive a CPP retirement pension and continue to work in Canada outside of Québec are required, along with their employers, to contribute to the CPP. Working beneficiaries aged 65 to 69 are not required to contribute, but are given the option to do so. No contributions are made after age 70. Employers of those working beneficiaries opting to contribute are also required to contribute.
- Working beneficiaries are eligible to receive a post-retirement benefit, payable from the CPP the year following the year in which the applicable contributions are made.
- Contributions toward a post-retirement benefit do not increase the amount of other CPP benefits and they do not determine eligibility for CPP benefits, other than the post-retirement disability benefit.

### **Disability benefits**

- A person is considered disabled if the person is suffering from a severe and prolonged mental or physical disability. A disability is considered severe if by reason of it the person is regularly incapable of pursuing any substantially gainful occupation; a disability is considered prolonged if it is likely to be long-continuing and of indefinite duration or likely to result in death.
- A person who becomes disabled prior to age 65 and is not receiving a CPP retirement pension is eligible for a disability pension provided that contributions have been made, at the time of disablement, for at least four of the previous six calendar years, counting years included wholly or partly in the contributory period. Contributions must be on earnings that are not less than 10% of the YMPE rounded, if necessary, to the next lower multiple of \$100. Since 2008, contributors with 25 or more years of contributions to the CPP can meet the eligibility requirement with contributions in three of the last six years. These eligibility requirements include both the Base CPP disability benefit and the additional CPP disability benefit.



### **Post-retirement disability benefit**

- Beginning in 2019, a flat-rate post-retirement disability benefit is payable under the Base CPP to retirement beneficiaries who are deemed disabled while under age 65.
- The post-retirement disability benefit pertains only to the Base CPP benefit. There is no additional post-retirement disability benefit payable under the Additional CPP benefits.

### **Survivor benefits**

A legal spouse, a separated legal spouse not cohabiting with a common-law partner, or a common-law partner of a deceased contributor, is eligible for a survivor's benefit if the following conditions are met as at the date of the contributor's death:

- The deceased contributor must have made contributions during the lesser of ten calendar years, or one-third of the number of years included wholly or partly in their contributory period, but not for less than three years.
- If the surviving spouse is the separated legal spouse of the deceased contributor, there must be no cohabiting common-law partner of the contributor at the time of death. If the survivor is the common-law partner of the deceased contributor, the couple must have cohabited for not less than one year immediately before the death of the contributor. If the common-law partner is of the same sex as the deceased contributor, the death must have occurred on or after April 17, 1985.
- Prior to 2019, the surviving spouse or common-law partner must have had dependent children, been disabled, or been at least 35 years of age. As of January 1, 2019, these conditions no longer apply.

### **Contributions**

Both the base and additional CPP benefits are financed through mandatory contributions from employees, employers and those who are self-employed, and through the revenue earned on CPP investments.

Workers start contributing to CPP at age 18. Contributions at the base contribution rate and first additional contribution rate are made on earnings between the YBE and the YMPE. Contributions at the second additional contribution rate are made on earnings between the YMPE and YAMPE. The contribution rates for employers are the same as those for workers.

In respect of the Base CPP, from 1966 to 1986, the annual contribution rate applicable to contributory earnings was 1.8% for employees (and the same amount for their employers) and 3.6% in respect of self-employed earnings. Following 1986, rates increased steadily to their current levels shown in the table below. The rates in the table below are for the worker and employer combined. A self-employed member would contribute this entire amount themselves.

**Table C.5.1 – Legislated contribution rates under the CPP**

Year	Pensionable Earnings above YBE up to YMPE		Pensionable Earnings above YMPE up to YAMPE
	Base Contribution Rate	First Additional Contribution Rate	Second Additional Contribution Rate
2003-2018	9.9%	-	-
2019	9.9%	0.3%	-
2020	9.9%	0.6%	-
2021	9.9%	1.0%	-
2022	9.9%	1.5%	-
2023	9.9%	2.0%	-
2024+	9.9%	2.0%	8.0%*

\* In 2024, the YAMPE will be 7% higher than the YMPE as a transition. In 2025 and beyond it is 14% higher than the YMPE.

## Retirement dates

Eligible participants may elect to commence their retirement pension at any time after attaining age 60.

Pension amounts shall be reduced at a rate of 0.6% for each month that the commencement date precedes the participants' 65<sup>th</sup> birthday.

Pension amounts shall be increased at a rate of 0.7% for each month commencement is postponed past the participants' 65<sup>th</sup> birthday, up to the earlier of the commencement date and the participants' 70<sup>th</sup> birthday.

## Calculation of benefits

### 1) Retirement benefits: Base CPP

The initial monthly retirement pension payable under the Base CPP at age 65 is based on the contributor's entire history of pensionable earnings during the contributory period. The retirement pension under the Base CPP is equal to 25% of the average of the YMPE for the year of retirement and the four previous years, referred to as the Maximum Pensionable Earnings Average (MPEA), adjusted to take into account the contributor's pensionable earnings. For this purpose, the contributor's pensionable earnings for any given month are indexed by the ratio of the MPEA for the year of retirement to the YMPE for the year to which the given month belongs.

Drop-out provisions allow certain periods with low pensionable earnings to be excluded from the base CPP pension calculation:

- **General drop-out provision** – CPP participants are able to drop up to 17% of their lowest months of earnings (maximum 8 years) from the calculation of their retirement benefit.
- **Child rearing drop-out provision** – Participants can drop periods of low earnings related to child-rearing for a child less than seven years of age. This is done prior to the general dropout of 17% mentioned above.
- **Disability drop-out provision** – Any period that a member is receiving a disability pension will not count towards their contributory period. Additionally, if the member was on disability up to age 65 then their pensionable earnings are adjusted based on the YMPE when the member first went on disability and then accumulated according to CPI from that time to age 65.
- Should the member retire between age 65 and age 70, there is an **additional drop-out provision**:
  - If a member is still working after age 65, those earnings can be used to replace any earnings from before age 65 that were lower.
  - If the earnings after age 65 are less than any adjusted pensionable earnings in years prior to turning age 65, they can simply be dropped (will not count towards the general drop-out provision).

## 2) Retirement benefits: Additional CPP

The calculation of the additional CPP retirement benefit is based on the first and second additional monthly pensionable earnings. The first additional monthly pensionable earnings are equal to the total of the highest 480 months or the total number of months, if lower, in the first additional contributory period of monthly adjusted pensionable earnings up to the YMPE divided by 480. Similarly, the second additional monthly pensionable earnings are equal to the total of the highest 480 or total number of months, if lower, in the second additional contributory period of monthly adjusted pensionable earnings between the YMPE and the YAMPE divided by 480. These calculations provide for a monthly accrual of 1/480 of the total additional retirement benefit.

The additional monthly retirement benefit is calculated as the sum of 8.33% of the first additional monthly pensionable earnings and 33.33% of the second additional monthly pensionable earnings.

The pensionable earnings used for the calculation of additional retirement benefits are adjusted to the date of retirement in the same way as for the base CPP, that is, indexing by the ratio of the MPEA to the YMPE as described above. Further, to account for the lower first additional contribution rates during the first four years of the phase-in period (from 2019 to 2022), the first additional monthly pensionable earnings are multiplied by 0.15 in 2019, 0.30 in 2020, 0.50 in 2021, and 0.75 in 2022.

There are no drop-out periods as in the Base CPP portion. However, drop-in provisions do exist for members with periods of low earnings resulting from disability or child-rearing for a child of less than seven years of age.

- **Disability drop-in provision** – If a member becomes disabled after January 1, 2019 an imputed income will be assigned to those disability periods of low or zero earnings for the purpose of calculating the Additional CPP retirement (and survivor) benefits. The drop-in amount will be equal to 70 per cent of an individual's average earnings in the six years prior to the onset of the disability. If fewer than six years of earnings exist between January 1, 2019 and the date of disability, then the drop-in will be calculated based on the actual number of earnings months after 2018, prior to the onset of disability.
- **Child rearing drop-in provision** – For parents of children under the age of seven on or after January 1, 2019, an imputed income will be assigned to child-rearing periods of low or zero earnings on or after January 1, 2019 for the purpose of calculating Additional CPP benefits. The drop-in amount is equal to the parent's average earnings during the five years prior to the birth or adoption of the child if that amount is higher than their actual earnings during the period the child was younger than age seven.
- The child-rearing drop-in amount is calculated based on months of earnings after 2018 and prior to birth or adoption of a child. If, however, there are fewer than 60 such months (5 years), then the drop-in is calculated based on the actual number of earnings months, but not lower than 36. If there are less than 36 such months of earnings, the drop-in will be calculated using imputed earnings of 40% of the YMPE for the number of months missing from the minimum of 36.

## 3) Post-retirement benefits

The post-retirement benefit allows CPP retirement pension beneficiaries who keep working to increase their retirement income by continuing to contribute to the CPP, even if they are already receiving the maximum CPP retirement pension.

The post-retirement benefit is earned at a rate of 1/40 of the maximum retirement pension per year of post-retirement contributions and is adjusted for the applicable earnings level and age of the contributor.

A post-retirement benefit becomes payable the year following the year in which contributions are made, and multiple post-retirement benefits may accumulate over time. The total pension payable resulting from the combination of the retirement pension and post-retirement benefit may be greater than the maximum CPP or QPP pension payable. As for the CPP retirement pension, the post-retirement benefit is payable for a beneficiary's lifetime.

#### 4) Disability benefits

The initial *Base CPP monthly disability benefit* is the sum of a flat-rate portion payable depending only on the year in which the benefit is payable and an earnings-related portion equal to 75% of the Base CPP retirement pension that would be payable at the onset of disability if the contributory period ended on that date and no actuarial adjustment applied.

The initial amount of the *Additional CPP monthly disability benefit* is strictly earnings-related and is equal to 75% of the additional retirement pension that would be payable at the onset of disability if the first and second additional contributory periods ended on that date and no actuarial adjustment applied.

The automatic conversion of the CPP disability benefit into a retirement pension at age 65 is determined by base and additional pensionable earnings at the time of disablement, price-indexed to age 65.

The *post-retirement disability benefit*, introduced in 2019, is a monthly flat-rate that is provided in addition to the individual's retirement pension. The value of the post-retirement disability benefit is equal to the flat-rate component of the disability pension and is payable under the base CPP to retirement beneficiaries who are deemed disabled while under age 65. The post-retirement disability benefit pertains only to the Base CPP. There is no additional post-retirement disability benefit payable under the Additional CPP.

A flat-rate benefit is also payable to dependent children of disabled beneficiaries. To be eligible, children must be under 18 years of age or under 25 and in full-time attendance at school or university.

#### 5) Survivor benefits

The amount of survivor pension depends on whether the survivor is over or under age 65 and whether or not they also receive other CPP benefits.

- **New survivor under age 65** – The benefit is the sum of the flat rate and earnings-based components:
  - The Base CPP flat-rate survivor's benefit depends only on the year in which the survivor's benefit is payable.
  - The earnings-related benefits payable under the Base and Additional CPP depend initially only on the contributor's record of pensionable and additional pensionable earnings, respectively as at the date of death. The initial earnings-related survivor's benefit is equal to 37.5% of either the retirement pension of the deceased contributor if they had been receiving a pension, or the retirement pension that would have been payable to the deceased contributor if the contributory and additional contributory periods had ended at the time of death, with no actuarial adjustment in either case.

- **New survivor over age 65** – At age 65, or upon becoming widowed at a later age, an eligible surviving spouse or common-law partner is entitled to a monthly survivor's benefit equal to 60% of either the retirement pension of the deceased contributor if they had been receiving a pension, or the retirement pension that would have been payable to the deceased contributor if the contributory and additional contributory periods had ended at the time of death, with no actuarial adjustment in either case. However, the total benefit an individual surviving spouse or common-law partner may receive, including their own pension, cannot exceed the maximum CPP pension payable.

## **6) Death benefit**

A lump sum benefit is payable to the estate of a deceased contributor if the eligibility rules for the survivor's benefit are met. Prior to 2019, the amount of the death benefit was equal to six times the monthly amount of the CPP retirement pension accrued or payable in the year of death, adjusted to exclude any actuarial adjustments, and subject to a maximum of ten percent of the YMPE for the year of death prior to 1998, and \$2,500 thereafter. As of January 1, 2019, the death benefit equals the flat-rate amount of \$2,500.

The death benefit pertains only to the Base CPP. There is no Additional CPP death benefit.

## **7) Child's benefits**

Each child under age 18 and each full-time student aged 18 to 25 who is dependent on a contributor eligible for a CPP disability benefit (the disability pension or post-retirement disability benefit) or who was dependent on a deceased contributor who satisfied the requirements for a survivor's pension is entitled to a flat-rate monthly benefit. An eligible child may not receive child's benefits in respect of more than two contributors.

The child's benefits pertain only to the Base CPP. There are no Additional CPP child's benefits.

## **Inflation adjustments**

All monthly CPP benefits are indexed annually in accordance with inflation. Benefit amounts are adjusted in January of each year to reflect increases in the Consumer Price Index published by Statistics Canada. The prescribed increase each year is calculated as the average for the 12-month period ending October 31<sup>st</sup> in the preceding year of the Consumer Price Index for each month in that 12-month period (minimum 0%).

## **Credit splitting**

Pensionable and additional pensionable earnings may be split between separated or divorced couples (married spouses or common-law partners) for each month the couple lived together. Pensionable earnings (of the Base CPP) are used to establish eligibility for CPP benefits, and both pensionable and additional pensionable earnings are used to calculate the amounts of benefits.

Contributors may obtain a credit split even if they have remarried. However, pensionable and additional pensionable earnings cannot be split for any year in which the total earnings of the former couple do not exceed twice the YBE. Credit splitting also does not apply for any period of cohabitation during which a former spouse or common-law partner received a CPP retirement pension.

## Pension sharing

Couples (legal spouses or common-law partners) in an ongoing relationship may voluntarily (at the request of one of them) share their CPP retirement pensions corresponding to the number of years during which they cohabited. This applies provided both spouses have reached the minimum age requirement to receive a retirement pension. Sharing is possible even if only one of the spouses has participated in the CPP. Pension sharing ceases upon separation, divorce, or death.

## QPP key provisions

The provisions for the QPP are in general aligned with those of the CPP. Some of the key QPP provisions are described below, including those that differ significantly from the CPP.

Changes to some QPP provisions were announced in 2023 (to become effective as of January 1, 2024) and are not reflected in the sections below. These changes relate to how benefits are calculated for workers over age 65 and also extend the maximum retirement age under QPP from 70 to 72.

Note that the additional component of QPP, affecting participants from January 1, 2019 onward, provides for contributions and pension benefits that are identical to that of the additional component of CPP.

## Participation

Subject to certain exceptions, any person at least 18 years of age who receives earnings from work performed in Québec must contribute to QPP if their annual income is greater than the general exemption, unless they receive the disability pension under QPP or an equivalent plan. Recipients of a retirement pension who are working are also required to contribute.

## Contributions

The QPP contribution structure is the same as that of CPP. For the base QPP plan, contributions are made on eligible income between the annual exempt amount of \$3,500 and the Maximum Pensionable Earnings (MPE) level for the year. The MPE applicable to QPP contributions is identical to the YMPE each year. Similar to CPP, QPP contributions are divided evenly between workers and employers.

From 1966 to 2011, contribution rates for base QPP were identical to that of base CPP. Beginning in 2012 and up to and including 2017, base QPP contribution rates diverged from the CPP rate of 9.9% as seen in the table below:

**Table C.5.2 – Legislated contribution rates for the Base benefit under QPP**

Time Period	QPP Employee Contribution Rate	QPP Employer Contribution Rate	QPP Self-employed Contribution Rate
2011	4.95%	4.95%	9.90%
2012	5.03%	5.03%	10.05%
2013	5.10%	5.10%	10.20%
2014	5.18%	5.18%	10.35%
2015	5.25%	5.25%	10.50%
2016	5.33%	5.33%	10.65%
2017 onward	5.40%	5.40%	10.80%

The contributory service period for a participant in the base QPP begins on the first day of the month following their 18<sup>th</sup> birthday (or January 1<sup>st</sup>, 1966, if later) and ends at the first of the following months:

- the month preceding the start of payment of the retirement pension;
- the month of 70<sup>th</sup> birthday of the person;
- the month of the person's death.

### **Automatic adjustment mechanism**

#### Base QPP

The steady-state contribution rate allows the application of the automatic adjustment mechanism required under section 44.1 of the *Act Respecting the Québec Pension Plan* (the QPP Act). This mechanism restores the stability of the funding of the basic plan, if necessary. When the steady-state contribution rate exceeds the basic contribution rate provided for by law by at least 0.1%, the latter is increased at the rate of 0.1% annually, until the difference between the two rates becomes less than 0.1%. The government can decide to suspend this automatic adjustment by decree.

#### Supplementary Plan

The QPP Act provides for an automatic adjustment mechanism which will allow the funding of the supplementary plan to be re-established, if necessary. The details of this mechanism have not been defined at this time.

### **Dropout periods**

Under the base QPP, dropout periods differ from those under the base CPP. For the base QPP, the following periods are excluded from the contributory period:

- up to 15% of months of low or no earnings;
- the first three months preceding the start of payment of a disability pension (if the date of disability is after June 30, 1993) and the months during which the person received this pension under the QPP;
- the months for which family benefits have been paid for a child under the age of seven, if these months are part of a year in which the income from work was lower than the general exemption;
- certain months for which an unreduced income replacement insurance is paid under the *Act Respecting Industrial Accidents and Occupational Diseases*.

### **Retirement pension commencement**

In order to be eligible for a QPP retirement pension, a person must have contributed to the plan and attained age 60. The person can receive their retirement pension while continuing to work. Working beneficiaries are required to continue contributing to the plan in most cases, and are eligible for a supplementary benefit similar to the *post-retirement benefit* under the CPP.

A person who applies for their retirement pension after the age of 65 is entitled to receive a retroactive retirement pension. The retroactive period can reach a maximum of 12 months and cannot include months included in the period preceding the individual's 65<sup>th</sup> birthday.

The calculation of the initial QPP retirement pension amount is the same as that of the CPP for both the base and additional parts of the plan.

The adjustment factors for early retirement (before 65) and postponed retirement (after 65) are the generally the same as those under the CPP. The only exception is that an early retirement adjustment factor of 0.5% per month may apply instead of the standard 0.6% per month in cases where the QPP pension amount is very low.

### **QPP disability benefit**

A person is considered disabled for the purposes of the QPP if they are suffering from a severe and prolonged physical or mental disability. Disability is serious if it renders the person incapable of regularly carrying out any meaningful gainful occupation. In this case, the disability is said to be total. In addition, for a person aged 60 to 65, the disability is severe if their limitations make them unable to carry out their usual paid occupation when they stop working because of their disability. In the latter situation, the disability is said to be flexible.

The disability is prolonged if it is to result in death or, in all likelihood, to last indefinitely.

A person suffering from total disability may be entitled to a disability pension if they have contributed to the plan:

- during two of the last three years of their contributory period;
- during five of the last ten years of their contributory period; or
- for at least half of their contributory period, but for at least two years.

A person aged 60 to 65 with flexible disability may be entitled to a disability pension if they have contributed to the QPP during at least four of the last six years of their contributory period.

A person receiving a retirement pension aged 60 to 65 and suffering from total disability after the first six months of payment of their retirement pension may receive the additional amount for disability in the basic plan. To be eligible, they must have contributed to the plan for at least four of the last six years.

The disability pension is not paid to persons who become beneficiaries of an unreduced income replacement indemnity under the *Act Respecting Industrial Accidents and Occupational Diseases*.

The amount of the QPP disability benefit is comprised of a flat benefit provision as well as a variable benefit provision. The calculation of each of these amounts is the same as under the CPP.

### **QPP survivor pension**

To be eligible for a surviving spouse's pension, a death benefit or an orphan's pension, the deceased must have paid contributions during one third of their contributory period, and for at least three years. The required number of years of contribution is capped at ten, regardless of the number of years in the contributory period.

Survivor benefit amounts are calculated dependent on the age of the surviving spouse as well as whether they have a dependent child. The survivor benefit is composed of a flat portion as well as a variable portion, similar to the CPP, but the different age categories mean the benefit amounts may differ under the QPP in some scenarios.

The QPP orphan's pension is a monthly amount paid to the individual who supports a minor child of the deceased if the deceased contributed enough to the QPP. The orphan's pension is a fixed monthly amount for each child that is adjusted annually for inflation and is the same as under the CPP. It is paid until the child turns 18.

### **Participation in both QPP and CPP**

An administrative agreement between the QPP and the CPP exists and is used to determine the source of benefit payments for beneficiaries who have contributed to both plans. The plans compensate each other according to the participation of the beneficiaries in each of the plans, since only one plan pays the benefit to each beneficiary. The paying plan is determined on the basis of the person's place of residence when requesting the benefit.



## C.6 – Replication of CPP 31 Report results

### Comparison of LifeWorks (LW) model and CPP 31 Report

The minimum contribution rates obtained through our model for the Base CPP benefit, the First Additional benefit and the Second Additional benefit are 9.57%, 1.98% and 7.92% respectively. These rates are slightly higher than the minimum contribution rates disclosed in the CPP 31 Report at 9.54% for the Base CPP, 1.97% for the First Additional benefit, and 7.88% for the Second Additional benefit. Comparisons of projections in population, contributions, and benefits are shown in the tables below. Differences are primarily attributed to additional assumptions needed in our model, due to the Chief Actuary having additional information that is not publicly disclosed.

**Table C.6.1 – Comparison of pay-as-you-go rates**

Year	CPP 31 Report	LifeWorks Model
2022	9.08%	9.05%
2025	9.76%	9.81%
2030	10.35%	10.33%
2035	10.58%	10.60%
2040	10.72%	10.72%
2045	10.82%	10.83%
2050	11.05%	11.07%
2055	11.48%	11.45%
2060	12.06%	12.01%
2065	12.60%	12.60%
2070	12.91%	12.91%
2080	13.07%	13.06%
2090	13.04%	13.05%
2100	13.29%	13.25%

**Table C.6.2 – Comparison of projected contributions (\$ millions)**

Year	Base CPP		Additional CPP	
	CPP 31 Report	LifeWorks Model	CPP 31 Report	LifeWorks Model
2022	61,050	61,140	9,250	9,264
2025	70,338	70,306	18,174	18,185
2030	85,591	85,564	22,097	22,094
2035	103,693	103,606	26,690	26,699
2040	124,174	124,200	31,927	31,931
2045	148,443	148,513	38,103	38,183
2050	176,687	177,094	45,300	45,374
2055	208,701	208,893	53,476	53,504
2060	244,991	244,986	62,715	62,720
2065	287,400	287,177	73,523	73,469
2070	338,777	339,124	86,582	86,650
2080	475,589	476,258	121,412	121,550
2090	667,715	667,735	170,294	170,289
2100	928,529	928,718	236,708	236,757

**Table C.6.3 – Comparison of projected expenditures (\$ millions)**

Year	Base CPP		Additional CPP	
	CPP 31 Report	LifeWorks Model	CPP 31 Report	LifeWorks Model
2022	56,005	55,889	287	302
2025	69,330	69,657	640	583
2030	89,472	89,303	1,982	1,979
2035	110,853	110,920	4,792	4,787
2040	134,439	134,525	9,598	9,595
2045	162,197	162,404	17,303	17,187
2050	197,151	198,053	29,370	29,153
2055	241,987	241,672	47,261	46,588
2060	298,489	297,239	71,950	71,598
2065	365,685	365,463	102,158	103,037
2070	441,724	442,066	135,530	136,129
2080	628,102	628,321	213,446	212,560
2090	879,465	879,866	311,022	310,743
2100	1,246,767	1,242,869	445,964	446,402

**Table C.6.4 – Comparison of projected number of pensioners**

Year	Base CPP		Additional CPP	
	CPP 31 Report	LifeWorks Model	CPP 31 Report	LifeWorks Model
2022	7,964	8,167	989	1,040
2025	8,705	8,822	1,998	2,269
2030	9,888	9,941	3,794	4,324
2035	10,793	10,805	5,716	6,217
2040	11,519	11,469	7,603	8,075
2045	12,176	12,154	9,403	9,825
2050	12,869	12,906	11,073	11,477
2055	13,629	13,642	12,529	12,997
2060	14,449	14,431	13,760	14,250
2065	15,222	15,218	14,733	15,109
2070	15,885	15,873	15,469	15,785
2080	17,020	16,994	16,620	16,772
2090	17,899	17,928	17,494	17,491
2100	18,916	18,935	18,503	18,310

**Table C.6.5 – Comparison of projected number of contributors**

Year	Base CPP		Additional CPP	
	CPP 31 Report	LifeWorks Model	CPP 31 Report	LifeWorks Model
2022	15,235	15,284	15,235	15,284
2025	15,959	15,597	15,959	15,597
2030	16,708	16,693	16,708	16,693
2035	17,464	17,460	17,464	17,460
2040	18,057	18,069	18,057	18,069
2045	18,686	18,699	18,686	18,699
2050	19,263	19,270	19,263	19,270
2055	19,687	19,681	19,687	19,681
2060	19,992	19,981	19,992	19,981
2065	20,289	20,278	20,289	20,278
2070	20,699	20,735	20,699	20,735
2080	21,805	21,850	21,805	21,850
2090	22,975	22,975	22,975	22,975
2100	23,973	23,965	23,973	23,965

# Appendix D: Additional legal and governance considerations

## D.1 – Information sharing and privacy

### Information sharing with the Federal Government

A certain amount of information sharing and cooperation would be required between the federal government and the Alberta government to facilitate the establishment and operation of an APP. (To a lesser extent, the cooperation of the Québec government would also be required. The CPP already includes certain provisions that permit Canada to enter information-sharing agreements with a provincial pension plan (see CPP Act, ss. 80, 105 and 113(3).)

Section 113(3)(b) of the CPP Act provides that, where a province gives notice of withdrawal from the CPP,

[...] the Minister, with the approval of the Governor in Council, may on behalf of the Government of Canada enter into an agreement with the government of that province [...]

(b) generally for the making of all such arrangements as may be necessary to permit provision to be made for the assumption, under the provincial pension plan referred to in the notice, of all obligations and liabilities [that the provincial plan must assume under the CPP Act].

In other words, the CPP Act recognizes that some “arrangements” will be “necessary” to permit Alberta to administer its replacement pension plan.

The CPP’s amending formula – which requires the consent of two thirds of “included provinces,” representing two thirds of all included provinces’ population – is only triggered by certain types of amendments. Any amendments necessary to allow the federal government to assist with administering an APP would not appear to trigger the amending formula and would therefore not require provincial consent.<sup>34</sup>

There is no positive obligation on the Government of Canada to share information collected in connection with the administration of the CPP with the provinces. However, discretionary information sharing with provinces that provide or intend to provide a comprehensive pension plan is contemplated by certain sections of the CPP Act.

Section 113(3) of the CPP Act addresses information sharing by the Minister of Employment and Social Development (MESD), who is responsible for the administration of the CPP, with the approval of the Governor in Council with provinces that intend to establish a comprehensive pension plan. It provides (emphasis added):

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<sup>34</sup> As described above, the amending formula is triggered by amendments affecting the general level of benefits or classes of benefits provided by the CPP Act; the contribution rates for employees, employers or the self-employed; the formulae for calculating contributions and benefits; the management or operation of the CPP Account or Additional CPP Account; or the CPPIB Act: CPP Act, s. 114(4).

Where notice in writing has been given to the Minister<sup>35</sup> by the government of a province as described in the definition province providing a comprehensive pension plan in subsection 3(1), the Minister, with the approval of the Governor in Council, may on behalf of the Government of Canada enter into an agreement with the government of that province,

(a) for the furnishing of that government under prescribed conditions with any information obtained under this Act, including records of any amounts that are shown in the Record of Earnings to the accounts of persons who have made contributions under this Act in respect of employment in that province or as persons resident in that province in respect of self-employed earnings; and

(b) generally for the making of all such arrangements as may be necessary to permit provision to be made for the assumption, under the provincial pension plan referred to in the notice, of all obligations and liabilities accrued or accruing as described in paragraph (b) of the definition province providing a comprehensive pension plan in subsection 3(1).

Section 105 of the CPP Act addresses ongoing information sharing between MESD and provinces that provide a comprehensive pension plan. It provides (emphasis added):

The Minister may, on behalf of the Government of Canada, enter into an agreement with the government of a province providing a comprehensive pension plan

(a) under which any information obtained under this Act, including records of any amounts that are shown in the Record of Earnings to the accounts of individuals who have made contributions under this Act and under the provincial pension plan of that province and that relate to the contributions made by those individuals under this Act, may be made available under prescribed conditions to the appropriate authority of that province having the administration of the provincial pension plan, and under which any information obtained under the provincial pension plan may be made available on a reciprocal basis to the Minister; and

(b) under which the Minister or the appropriate authority of that province, in accordance with any terms and conditions that may be specified in the agreement, may make available to any individual who has made contributions under this Act and under the provincial pension plan a statement of any amounts shown in the Record of Earnings or the appropriate records established under the provincial pension plan, as the case may be, to the account of that individual, and may act on or give effect to any request made by that individual for reconsideration by the Minister or the appropriate authority, as the case may be, of any statement made available to the individual.

Additionally, section 80(1)(d) of the CPP Act provides authority for the MESD to enter into an agreement with the appropriate authority of a province providing a comprehensive pension plan to provide for the administration and coordination of the CPP and the provincial pension plan in respect of persons who are contributors under the CPP or provincial plan in both, including the exchange of information obtained under the CPP or a provincial pension plan as is necessary to give effect to the agreement.

The term “information” is not explicitly defined in the CPP Act.

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<sup>35</sup> For the purposes of this section, Minister refers to MESD.

### ***Department of Employment and Social Development Act***

The *Department of Employment and Social Development Act* (DESDA) is the enabling statute for Employment and Social Development Canada (ESDC). Part 4 of the DESDA sets out the rules that apply to the protection and making available of information that is obtained by the ESDC or the Canada Employment Insurance Commission under a program (which would include the CPP), or that is prepared from that information.

“Information” is defined at section 30 of the DESDA to mean “personal information” as defined in section 3 of the *Privacy Act* (with certain exclusions).

Section 32 of the DESDA provides that information is privileged and may not be made available unless (emphasis added):

- (a) it is authorized under subsection 28.2(5) or by this Part, or by an agreement under section 105 or paragraph 107(1)(a) of the *Canada Pension Plan* or paragraph 40(1)(a) of the *Old Age Security Act*;
- (b) it may be made available under any of paragraphs 33.1(a) to (c) of the *Old Age Security Act*.

Accordingly, DESDA gives MESD the legal authority to make information in its custody and control as a result of administering the CPP available to a province that has entered into an agreement under section 105 of the CPP Act. Interestingly, DESDA does not give MESD the express legal authority to make such information available under section 113(3) of the CPP Act (likely because information sharing under section 113(3) requires the approval of the Governor in Council).

However, section 36 of DESDA also permits information to be made available to the government of a province, or to a public body created under the law of a province, for the administration or enforcement of a federal law or activity or of a provincial law or prescribed provincial activity, if MESD considers it advisable and the information is made available subject to conditions that are agreed on by MESD and the government or body. Information obtained by a government or body under this section may not be made available to any other person or body unless MESD considers it advisable, the information is made available for the same purpose and is subject to agreed-upon conditions. Section 36.2 provides a similar right for MESD to share information with any person or body for similar purposes and subject to similar conditions.

Section 37 of DESDA provides that MESD may, subject to certain conditions, disclose information if MESD is of the opinion that the public interest outweighs any potential invasion of privacy or permitting disclosure would clearly benefit the individual to whom the information relates.

### ***Privacy Act***

Both the CRA and the ESDC are “government institutions” subject to the *Privacy Act*. Accordingly, personal information under the control of the CRA or ESDC as a result of administering the CPP cannot be disclosed except in accordance with the disclosure authorities provided for in the *Privacy Act*. Section 8(2) of the *Privacy Act* permits disclosure:

- (a) for the purpose for which the information was obtained or compiled by the institution or for a use consistent with that purpose;
- (b) for any purpose in accordance with any Act of Parliament or any regulation made thereunder that authorizes its disclosure;  
[...]
- (f) under an agreement or arrangement between the Government of Canada or any of its institutions and the government of a province [...]

Accordingly, the *Privacy Act* would permit MESD to share personal information with a province where authorized by the CPP and DESDA, or pursuant to an agreement with the province.

### **Information technology and information security requirements**

Neither the CPP, DESDA nor the *Privacy Act* currently impose specific information technology or information security requirements on information or personal information.

There are several Treasury Board Secretariat (Canada) (TBS(C)) Policies related to collecting, using, disclosing, retaining, and transferring personal information held by federal government institutions. For instance, the Policy on Privacy Protection<sup>36</sup> is intended to ensure effective protection and management of personal information by identifying, assessing, monitoring and mitigating privacy risks in government programs and activities involving the collection, retention, use, disclosure and disposal of personal information. This policy requires (among other things) privacy impact assessments for all new and modified programs involving personal information. Accordingly, it is likely that MESD would be required to undertake a privacy impact assessment before entering into any information sharing agreement with a province.

The TBS(C) Policy on Government Security<sup>37</sup> requires each government institution to meet specific security and identity management standards. For example, the policy requires government institutions to address a specific list of security controls including: security screening, information technology security requirements, physical security requirements, business continuity management, information management security, security requirements associated with contracts and other arrangements, security event management, and security awareness training. Accordingly, it is likely that MESD would incorporate information security requirements consistent with this Policy into any information sharing agreement with a province.

### **Data privacy and security**

If Alberta is to withdraw from the CPP, consideration will have to be made for the application of privacy and data security law to the provincial counterpart to the CPP, and to any obligations that would fall to the province as a result. Personal information required to administer the CPP is collected, used, and disclosed by ESDC and CRA pursuant to authorities provided under the CPP Act, DESDA, and their regulations. Both ESDC and the CRA are deemed “government institutions” under the *Privacy Act* and are subject to that act’s obligations with respect to protecting personal information. The CRA and ESDC are also subject to TBS(C) policies and directives on privacy and information security.

In addition to the privacy protections afforded by the federal *Privacy Act*, CPP information is deemed “privileged” under DESDA and subject to additional protections.

However, detailed below, the *Canada Pension Plan* explicitly contemplates that the MESD may enter into agreements with provinces providing or intending to provide a comprehensive pension plan (i.e., a plan equivalent to the CPP) to allow for information sharing on a reciprocal basis.

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<sup>36</sup> <https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12510>

<sup>37</sup> <https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16578>

Alberta public bodies are subject to the Alberta *Freedom of Information and Protection of Privacy Act* (FOIP). The FOIP restricts the purposes for which Alberta public bodies may collect personal information and the circumstances in which personal information may be disclosed. It also requires that personal information be collected directly from the individual, subject to limited exceptions. If an Alberta pension plan is established, the legislation that establishes this plan should include an explicit authority to collect personal information from and share personal information with the Government of Canada as necessary to administer the plan. Examples of such a collection authority can be found at Division III of the QPP Act or section 60 of Ontario's repealed *Retirement Pension Plan Act (Strengthening Retirement Security for Ontarians)*, 2016.

The Government of Alberta and the Government of Canada will need to enter into an information sharing agreement that governs the sharing of information between the two governments in connection with the administration of an Alberta Pension Plan and Canada Pension Plan. Both governments will likely need to conduct a privacy impact assessment before entering into any such agreement.<sup>38</sup> Any information sharing agreement is likely to include provisions relating to information security.

There is no indication from available guidance that the Government of Canada would be concerned about data residency issues.

### **Personal information banks**

The *Privacy Act* generally requires federal government institutions to include personal information in "personal information banks" (PIBs). Information about PIBs is made publicly available, including the purposes for which the information in the PIB is used and disclosed.

There are several PIBs relevant to the CPP. For example, ESDC maintains the *Canada Pension Plan Program PIB*. The published description of this PIB states that it includes personal information that is related to administration of the CPP and that this information may be used to administer CPP benefits. Information in this PIB may be shared in accordance with legislation and/or information sharing agreements with the Government of Québec for the administration of the QPP and the coordination of the QPP and CPP programs and with the Revenu Québec for the administration of taxation laws. Information may also be shared in accordance with legislation and/or information sharing agreements with other institutions for the administration of a prescribed federal or provincial law or activity and with provincial governments for the administration of their own social programs and public bodies who have entered into agreements with provincial governments for the administration of provincial programs.

This description is arguably broad enough to capture information sharing with the Government of Alberta for the administration of an APP. However, if specific information sharing arrangements with Alberta are in place, ESDC may wish to update the PIB description to provide more specific information about this information sharing (as has been done in respect of the QPP).

The descriptions for other relevant PIBs may also need to be modified to reflect any new information sharing with the Government of Alberta.

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<sup>38</sup> TBS's *Directive on Privacy Impact Assessment* governs the requirements for these assessments by Government of Canada departments. Although privacy impact assessments are not strictly required under the Alberta FOIP, the Office of the Information and Privacy Commissioner of Alberta recommends that they be completed for new projects by public bodies and has published a guide titled *Privacy Impact Assessment Requirements*.



## Existing relevant Government of Alberta legal authorities and policies

### **Alberta Freedom of Information and Protection of Privacy Act**

The *Alberta Freedom of Information and Protection of Privacy Act* (FOIP) regulates how “public bodies,” such as the ATBF, collect, use and disclose personal information.

Section 33 of the FOIP provides that no personal information may be collected by or for a public body unless

- (a) the collection of that information is expressly authorized by an enactment of Alberta or Canada,
- (b) that information is collected for the purposes of law enforcement, or
- (c) that information relates directly to and is necessary for an operating program or activity of the public body.

Section 34(1) of the FOIP requires a public body to collect personal information directly from the individual, unless an exception applies. Exceptions include:

- Where another method of collection is authorized by the individual, another Act or regulation, or by the Information and Privacy Commissioner of Alberta; or
- Where the information is necessary (i) to determine the eligibility of an individual to participate in a program of or receive a benefit, product or service from the Government of Alberta or a public body and is collected in the course of processing an application made by or on behalf of the individual the information is about, or (ii) to verify the eligibility of an individual who is participating in a program of or receiving a benefit, product or service from the Government of Alberta or a public body and is collected for that purpose.

Section 40(1) of the FOIP sets out the circumstances in which a public body may disclose personal information, including:

- For the purpose for which the information was collected or compiled or for a use consistent with that purpose;
- If the individual the information is about has identified the information and consented, in the prescribed manner, to the disclosure;
- For the purpose of complying with an enactment of Alberta or Canada or with a treaty, arrangement or agreement made under an enactment of Alberta or Canada;
- For any purpose in accordance with an enactment of Alberta or Canada that authorizes or requires the disclosure.

Accordingly, in order to ensure that the Alberta public body administering the Alberta pension plan can collect information from, and share information with, ESDC or the CRA, for purposes relating to the administration of an APP and the CPP, in compliance with FOIP, the legislation that establishes an APP should include an express authority for the public body to do so.

An example of such authority can be found at section 211 of the QPP Act<sup>1</sup>, which provides:

An agreement may be entered into with any government for the exchange of information obtained under this Act and under a similar plan administered by such government.

Notwithstanding sections 83, 89 and 94 of the *Act respecting Access to documents held by public bodies and the Protection of personal information* (chapter A-2.1), such agreement may provide for the conditions under which a statement of the amounts shown to the account of a person who has made contributions under this Act and under a similar plan may be furnished to such person, and, if necessary, be reviewed on his request.

Further, when the Government of Ontario attempted to establish the Ontario Retirement Pension Plan, it enacted legislation which explicitly contemplated collection of personal information from the Government of Canada (see section 60 of the *Ontario Retirement Pension Plan Act (Strengthening Retirement Security for Ontarians)*, 2016).

### **Information technology and information security requirements**

The FOIP provides at section 38 that the head of a public body must protect personal information by making reasonable security arrangements against such risks as unauthorized access, collection, use and disclosure or destruction. The FOIP does not otherwise prescribe specific information technology or information security measures that must be in place to protect personal information. However, the Government of Alberta has a number of policies regarding the security of the government's information assets, including a [Cyber Security Strategy](#). These policies will need to be considered in establishing appropriate information security measures for personal information collected, used and stored in connection with the APP.

### **Concerns the Government of Canada may raise when negotiating an information sharing agreement**

#### **Policy on information sharing agreements**

TBS(C) has published [Guidance on Preparing Information Sharing Agreements Involving Personal Information](#). This guidance is intended to be used by all federal government institutions subject to the *Privacy Act* when considering and developing information sharing agreements (ISAs) with other governments within Canada and across international borders.

Based on this guidance, before entering into an ISA with the Government of Alberta regarding sharing CPP related information, the Government of Canada will likely consider:

- The purpose of the ISA
- The legal authorities permitting the exchange of personal information (collection, use and disclosure) between the parties, including relevant program legislation
- The elements of personal information that will be disclosed and collected
- Where possible, the position and titles of officials who will have access to the personal information that will be shared
- Whether any consents or any notices to individuals are required
- Any limitations on the subsequent use and disclosure of personal information shared between the parties to the agreement, subject to applicable laws in each jurisdiction
- All the administrative, technical and physical safeguards required to protect the personal information shared against accidental or unauthorized access, disclosure, use, modification and deletion from initial transfer to final disposition
- Processes for addressing privacy or security breaches including notification requirements
- Processes to be used to ensure that the personal information shared is kept accurate, complete and up-to-date by all parties involved
- The maximum retention period for the personal information shared by the parties and the disposition methods required
- Where possible and applicable, processes to be used to address individuals' access rights to their personal information, including rights to request correction
- Processes for compliance monitoring and audits
- Procedures to modify and/or to terminate the agreement
- Conflict resolution mechanisms
- Where applicable, measures to address potential privacy risks posed by anti-terrorism legislation in a foreign country

- Where applicable, requirements to abide by specific provisions of specific mutual legal assistance treaties or other international agreements
- Human rights considerations

Further, as noted above, a privacy impact assessment would likely need to be completed by ESDC about how it would share personal information with the Government of Alberta to support an APP.

### **Alberta guidance for developing personal information sharing agreements**

The Government of Alberta has a similar [Guide for Developing Personal Information Sharing Agreements](#). Examples of the recommendations set out in the guide, for Alberta public bodies considering entering into ISA include:

- Ensuring that there is authority for the sharing of personal information
- Forwarding to the Office of the Information and Privacy Commissioner of Alberta a copy of the proposed agreement and/or the preliminary assessment for review and comments at least 60 days prior to signing
- Ensuring that only the personal information necessary to enable the public body to carry out the purposes in the agreement is collected, used and disclosed through the agreement
- Notifying the public or any affected group about the agreement (for example through signage in the public body's offices, notices placed with program information on web sites, in brochures, or on benefit cheque inserts) and, if the sharing involves an ongoing matching program, add a description of the program to the relevant personal information bank(s)

Accordingly, the Government of Alberta will likely need to conduct its own privacy impact assessment of any planned information sharing with the Government of Canada to support an APP.

## D.2 – Roles of other provinces in CPP withdrawal and amendment

### Statutory withdrawal procedure

Under the CPP, Alberta is entitled to withdraw from the CPP if it meets the requirements outlined below. The other provinces are not legally entitled to a formal role in the withdrawal process or a veto over the withdrawal.

The CPP Act allows a province to withdraw from the CPP if it establishes its own pension plan that meets the following requirements, which are set out in section 3(1). The provincial plan must provide for:

1. contributions to the plan beginning in the third year following the year in which the province gave notice of its intention to withdraw from the CPP;
2. the payment of benefits “comparable to those then provided by this Act” or by any other provincial pension plan (i.e., the QPP); and
3. the assumption of “all obligations and liabilities accrued and accruing” – up to the first day of the third year following the year the withdrawal notice was given – relating to “the payment of benefits under this Act attributable to contributions made under this Act in respect of” both
  - a) employment in the province; and
  - b) self-employed earnings of persons resident in the province.

The CPP Act requires a provincial pension plan to provide “comparable” – but not necessarily identical – benefits to those then provided by the CPP or QPP. As a result, the better view is that Alberta would have some flexibility in the design of an APP’s benefits, including flexibility to provide benefits superior to the CPP’s to the extent possible.

If a province seeks to establish a pension plan meeting the above requirements, then it may trigger the CPP’s withdrawal procedure. The CPP’s withdrawal procedure is as follows:

1. The government of the withdrawing province provides written notice to the federal Minister of Employment and Social Development of the province’s intention to establish a pension plan meeting the above requirements (s. 3(1)(b)).
2. The province must then provide by law for a pension plan meeting the CPP’s requirements by no “later than twelve months before the first day of the third year following the year in which notice” was given (s. 3(2)). In effect, this means that the province has the full year following the year it gave notice to establish the pension plan.
3. If the province has provided by law for a pension plan meeting the CPP’s requirements by the deadline, the federal government is required to allow the withdrawal: “the Governor in Council shall, by regulation made on the recommendation of the Minister of Employment and Social Development for the purposes of this CPP, prescribe that province as a province [providing a comprehensive pension plan]” (s. 3(2)) (emphasis added).
4. The regulation prescribing the province as “a province providing a comprehensive pension plan” becomes effective on the first day of the third year following the year in which the province gave the withdrawal notice (s. 3(3)).
5. When the regulation becomes effective, the requirements for employers, employees and the self-employed to make CPP contributions no longer apply in the province (s. 4(1)).

The CPP Act does not entitle other provinces to a formal role in Alberta's withdrawal from the CPP. However, that would not stop the federal government from consulting or involving other provinces as it saw fit. We are not aware of any formal agreements between Canada and the CPP participating provinces that would supplement the CPP's withdrawal procedure or entitle other provinces to a formal role in Alberta's withdrawal from the CPP.

A province may withdraw from participation in the CPP if it is a "province providing a comprehensive pension plan." To qualify as such, the CPP requires that the withdrawing province provide a provincial "plan of old age pensions and supplementary benefits" that meets certain prescribed requirements.

In order to qualify as a provincial counterpart to the CPP, a comprehensive provincial pension plan must do all of the following:

1. Provide participants with some form of old age pension and supplementary benefits;
2. Be a contributory plan;
3. Commence in the third year following the provision of notice under subsection 3(1) of the CPP (the "Effective Withdrawal Date");
4. Provide benefits that are "comparable" either to those provided under the CPP or to those provided under the QPP (being the only extant provincial counterpart to the CPP); and
5. Assume "all obligations and liabilities accrued or accruing" of the CPP attributable to CPP contributions in respect of employment and self-employment in the province to the Effective Withdrawal Date.

Following the provision of notice under subsection 3(1) of the CPP Act, the legislature of the withdrawing province must provide for the establishment and operation of a pension plan that meets the aforementioned criteria by no later than twelve months before the Effective Withdrawal Date. Where a province has done so, the federal Governor in Council is required to prescribe the withdrawing province as a "province providing a comprehensive pension plan" by regulation made on the recommendation of the Minister of Employment and Social Development, effective as of the Effective Withdrawal Date.<sup>39</sup>

Once the withdrawing province has given notice to the federal Minister of Employment and Social Development pursuant to subsection 3(1)(b) of the CPP Act, the Minister may, with the approval of the Governor in Council, enter into an agreement with the government of the withdrawing province on behalf of the Government of Canada to facilitate a transfer of CPP obligations and liabilities.

Under subsection 113(3) of the CPP Act, the government of Canada may enter into an agreement with the withdrawing province for the provision of information to the province and to make whatever arrangements may be necessary to provide for the assumption of all CPP obligations and liabilities accrued or accruing in respect of employment and self-employment in the withdrawing province.<sup>40</sup>

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<sup>39</sup> CPP Act, ss. 3(2) and (3). For an example of such a regulatory prescription, see the [Prescribed Province Pension Regulations](#).

<sup>40</sup> CPP Act, s. 113(3)(b).

### **Liabilities**

After a province is prescribed as “providing a comprehensive pension plan,” the CPP Act addresses the obligations and liabilities that the provincial plan had to assume, under section 3(1), in order for the province to withdraw. Such obligations cease to be obligations or liabilities accrued or accruing with respect to the payment of benefits under the CPP attributable to contributions made under the CPP in respect of employment or self-employment in the province (s. 113(1)(a)).

### **Assets**

The CPP requires the federal Minister of Finance to pay the withdrawing province its proportionate share of the CPP assets, as determined by the formula in section 113 of the CPP Act.

The CPP Act does not compel the federal government to negotiate with a withdrawing province over the division of the CPP's assets and liabilities. Rather, the CPP defines the division, albeit at a high level. Finally, we note that the division of assets and liabilities could be affected by a federal-provincial agreement. We are not aware of any such agreement.

### **CPP amendment procedure**

The CPP Act restricts the federal government's ability to make certain changes to the CPP unilaterally. Any amendment or enactment that affects the substance of CPP contribution rates or benefits levels, or the operations of the CPP accounts or CPPIB, requires the consent of a two-thirds of the included provinces with two-thirds of the population of all included provinces. In the event that any such significant amendment to the CPP is required, the amendment would be subject to the following consent rules.

#### Consent requirement

Under section 114 of the CPP Act, an amendment or enactment of Parliament that affects the matters described below requires the consent of the lieutenants governor in council of provinces that comprise (a) at least two thirds of the included provinces, and (b) at least two-thirds of the population of all of the included provinces.<sup>41</sup> As described further below, all provinces including Québec are “included provinces” under section 114(1) of the CPP Act, but the territories are not included.

Such consent is required for any provision of any enactment of Parliament that alters (whether directly or indirectly, and whether immediately or in the future) any of the following (subject to certain limited exceptions):

- The general level of CPP benefits;
- The classes of CPP benefits;
- The CPP contribution rate, first additional contribution rate or second additional contribution rate for employees, employers or self-employed persons for any year;
- The formulae for calculating CPP contributions and benefits;
- The management or operation of the base CPP account or the additional CPP account; and
- The CPPIB Act.

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<sup>41</sup> CPP Act, s. 114(4). For the purposes of obtaining consent, provincial populations are determined in aggregated by Statistics Canada as of June 1<sup>st</sup> of the year in which the enactment is made (see CPP Act, s. 114(5)).

### Notice requirement

Before certain types of amendments can be passed, “notice of intention to introduce a measure containing” such an amendment must be laid before Parliament.<sup>42</sup> Such notice is required in respect of any amendment that,

“[...] alters, or the effect of which is to alter, either directly or indirectly and either immediately or in the future, the general level of benefits provided by this Act or the contribution rate, first additional contribution rate or second additional contribution rate for employees, employers or self-employed persons for any year [...].”<sup>43</sup>

The notice of intention must be presented in a form, “[...] sufficient to indicate the nature of the provision contained or proposed to be contained in the measure [...]”<sup>44</sup> Upon such a notice being laid before Parliament, the Minister of Employment and Social Development must send a copy of the notice to the lieutenant governor in council of each included province (as defined above).<sup>45</sup>

An amendment that triggers the notice requirement cannot come into force earlier than the first day of the third year following the year in which notice is given of the intent to introduce the measure before Parliament.

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<sup>42</sup> CPP Act, ss. 114(2) and (3).

<sup>43</sup> CPP Act, s. 114(2).

<sup>44</sup> CPP Act, s. 114(3).

<sup>45</sup> CPP Act, s. 114(2).