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PENSION POLICY

Deferring Receipt of Public Pension Benefits: A Tool for Flexibility

by

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- Under the Canadian public pension system, CPP and QPP benefits can start at any time between age 60 and 70 and Old Age Security benefits at any time between 65 and 70. C/QPP benefits are reduced if they start before age 65, and all public benefits are enhanced if commencement is after age 65. There is no requirement to cease work or employment to start these benefits.
- This E-Brief analyzes the implications of public pension deferral and opportunities to effectively convert private savings into secure, inflation-indexed public pensions. We recommend that the permitted deferral period be extended, to allow middle- and upper-middle income Canadians greater retirement planning flexibility to the extent they have private savings and are willing to consume those savings more quickly.
- The proportion of retirement needs covered by public programs increases considerably when the benefits are taken later. The deferrals enhance the annual amounts of C/QPP received, which in turn lowers the amount of savings required. Pension deferral is thus both an effective means of reducing the savings required overall and of reducing risk.

A key – and misunderstood – aspect of retirement planning is the option Canadians have to defer the time when they start receiving public pension benefits.¹

Indeed, retirees may start collecting Old Age Security (OAS), Quebec Pension Plan (QPP) and Canada Pension Plan (CPP) benefits as late as age 70. Public pension benefits increase with each year of deferral, allowing workers who have enough private savings considerable flexibility

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1 The analysis presented here is drawn from a recent study (Genest-Grégoire et al. 2017) by the Research Chair in Taxation and Public Finance at Université de Sherbrooke, referred to as CFFP, its French acronym, hereafter.

to optimize the mix of public- and private-source retirement income. This flexibility can be a great help in protecting retirees against the inherently risky nature of financial markets (Wolfson 2011) and the possibility of outliving their savings, an important risk in aging societies (OECD 2016).

This E-Brief analyzes the implications of public pension deferral and opportunities to effectively convert private savings into secure, inflation-indexed public pensions. We recommend that the permitted deferral period be extended, to allow middle- and upper-middle income Canadians greater retirement planning flexibility to the extent they have private savings and are willing to consume those savings more quickly.

Structure of the Canadian Pension System

The Canadian pension system has three components, which are often associated with the floors of a house or the pillars that support a structure.

1. **Old Age Security (OAS) and Guaranteed Income Supplement:** Provided by the federal government, OAS and the Guaranteed Income Supplement (GIS) provide a basic income to Canadians 65 years or older. This basic income is higher for low-income Canadians because of the GIS and slightly lower to non-existent for high-income retirees. This program is funded directly from the federal government's general revenue and is indexed to inflation. Residency requirements apply to the accrual and payment of OAS and GIS benefits.
2. **Quebec Pension Plan and Canada Pension Plan (C/QPP):** These plans pay a lifetime pension to retirees based on their career incomes. Employees and employers contribute to the plans based on an indexed maximum employment-income amount of \$55,900 (2018). The maximum pension paid at 65 years old currently corresponds to 25 percent of this amount, indexed to cost-of-living increases.
3. **Private savings and pension plans:** Retirement income also comes from money saved by retirees during the course of their career, either by themselves or with the support of their employer. These savings include such investments as company pension plans or financial assets held in an RRSP or other registered vehicles.

Plan Flexibility

The Canadian public pension system offers significant flexibility. C/QPP benefits can start at any time between age 60 and 70 and OAS benefits at any time between 65 and 70.² C/QPP benefits are reduced if they start before age 65, and all public benefits are enhanced if commencement is after age 65. There is no requirement to cease work or employment to start these benefits.

The Research Chair in Taxation and Public Finance (CFFP) simulator demonstrates the impact of deferral for persons with earnings equal to C/QPP Yearly Maximum Pensionable Earnings (YMPE) in 2016. All cases presented in this E-Brief are of individuals who reached this income level, i.e., \$54,900, with a target replacement rate of 60 percent of their last year of employment income (adjusted for inflation afterwards). Amounts are considered before taxes, as taxes vary among provinces.

2 All examples presented in this E-Brief are based on 2016 data.

Table 1: Maximum Public Pension Plan Benefits, Based on Retirement Age, (\$2017)

	C/QPP	OAS	Total
C/QPP taken at 60 years and OAS at 65	8,557	7,026	15,583
C/QPP taken at 65	13,370	7,026	20,396
C/QPP taken at 70	18,985	9,555	28,540

Source : Retraite Québec & Employment and Social Development Canada.

Table 2: Comparisons Based on Age at Which Benefits Start after Retiring at 60

Age at which C/QPP & OAS are taken	60 – 65	65	70
Total private savings required to reach replacement rate objective (\$)	435,000	405,000	391,000
Required annualized savings rate	17.1%	15.9%	15.4%
Replacement rate guaranteed by the public plans at age 70 (objective: 60%)	28%	35%	47%
Proportion of the replacement objective guaranteed by the public plans at age 70	46%	58%	78%

Source: Authors' calculations.

Financial retirement needs depend on a retiree's income replacement target, but also on uncertain factors such as life expectancy. At 60 or 65 years old, few retirees can accurately anticipate their exact financial needs for the length of their retirement. This uncertainty pushes many of them to be overly prudent in their spending habits for fear of running out of money if they live too long or need expensive end-of-life care. Studies have consistently shown that retirees hold on to their financial assets as long as they can to mitigate these risks, often causing impairment to their lifestyle (MacDonald 2018).

The Financial Planning Standards Council and the Institut québécois de planification financière recommend that retirees plan for capital depletion no earlier than at age 94 years (75 percent of men and 60 percent of women are deceased by that age). This precautionary rule is not without cost: dying early means an earlier unnecessary reduction in living standards, while those outliving their savings face a shortfall and lower living standards at the end of life. Efficient use of public pension benefit deferrals, however, can reduce the cost of this precautionary behaviour (Table 2).

The proportion of retirement needs covered by public programs increases considerably when the benefits are taken later. The deferrals enhance the annual amounts of C/QPP received, which in turn lowers the amount of savings required. Pension deferral is thus both an effective means of reducing the savings required overall and of reducing risk. In fact, the more you rely on private savings for retirement, the greater the risk you have to assume

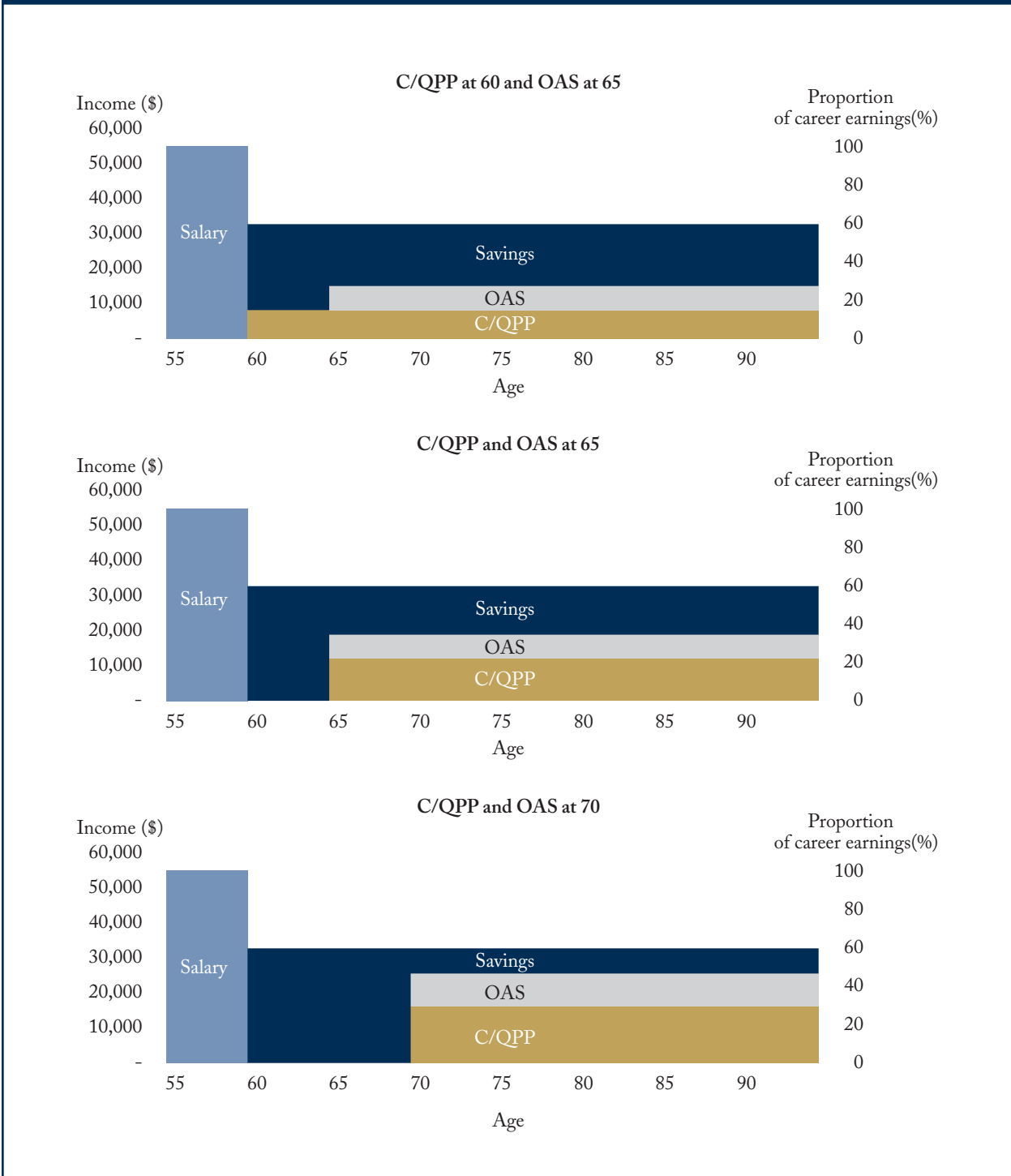
Box 1: CFFP Simulator Model

The CFFP simulator model calculates public benefits and the savings required to achieve a certain standard of living in retirement. It represents a simplified life trajectory for illustrative purposes and should not be considered financial planning advice on a personal basis. Optimal retirement planning requires personal knowledge about health, employment history and life objectives which we don't possess. The model includes:

- Simulations performed for 2016;
- Simulated income level: \$27,450, \$54,900 and \$82,350 (50 percent, 100 percent and 150 percent of the YMPE, constant for each year in the workforce);
- Simulated ages of retirement for 60 or 65 years;
- Simulated ages at which public pension benefits are taken: between 60 and 75 years for C/QPP, and between 65 and 75 years for OAS;
- Targeted replacement income rate at retirement: 70 percent of last year of employment gross income for people earning 50 percent of the YMPE and 60 percent for those earning 100 percent or 150 percent of the YMPE;
- Start of employment at age 25;
- The effect of C/QPP drop-out provisions are integrated;
- Start of retirement savings at 30;
- Rate of return, net of management fees, at 5 percent;
- Projected inflation rate of 2.1 percent; and
- Capital depletion at 94 years (75 percent of men and 60 percent of women are deceased at this age, which is the standard of prudence used by the Financial Planning Standards Council and the Institut québécois de planification financière).

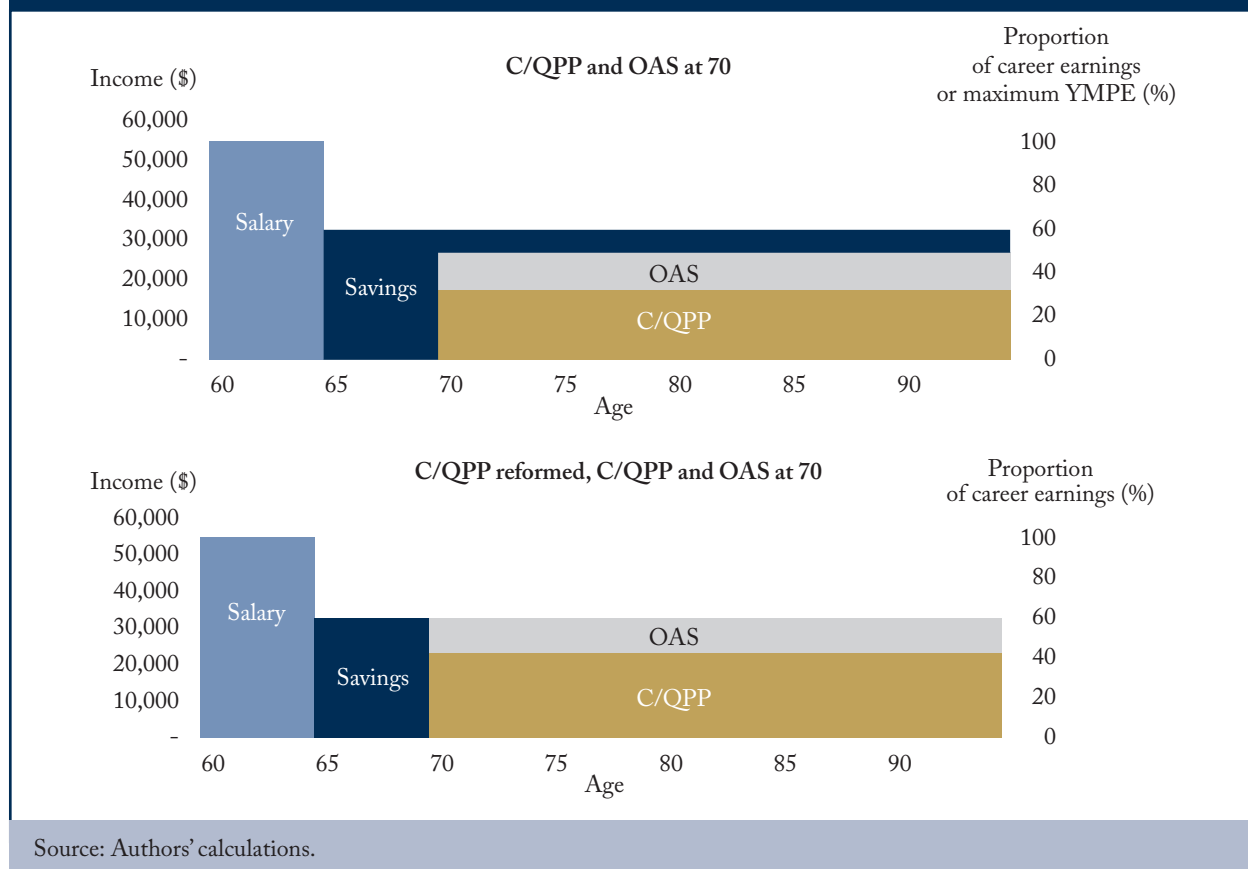
because of market fluctuations both before and after retirement. Moreover, private savings can fall short if a person lives longer than anticipated. Deferring the start of benefits helps protect against this risk, because once public benefits are determined, they are guaranteed for life.

Figure 1: Proportion of Targeted Retirement Income From Various Sources, Retirement at 60 Years Old



Source: Authors' calculations.

Figure 2: Proportion of Targeted Retirement Income From Various Sources, Retirement at 65 Years Old



Reforms Announced

The C/QPP are in the process of being reformed to increase coverage up to 33 percent (instead of 25 percent) of income up to a ceiling of \$62,586 in 2016 dollars.³ Under such reforms, it becomes possible for a person who reaches the YMPE and who retires at 65 to attain a replacement rate guaranteed by the public plans of 60 percent of the YMPE and thus have full public coverage of their assumed needs through maximum deferral of the C/QPP and the OAS benefit.

The reduced required savings rates that the reform allows are clearly associated with higher contribution rates to the C/QPP during the retiree's career, which do not appear in Table 3. However, it is important to note that the savings rates are reduced more than the combined increase in contributions by the employer and employee, because the increased contributions are based on projected performances higher than our performance assumption for the private savings that the contributions replace. The enhancement of the pension plan thus results in public coverage at lower cost, even factoring in the additional contributions.

3 The reform will not be fully implemented until 2065, but the numbers are converted to 2016 amounts for comparison purposes.

Table 3: Comparisons Based on Age at which Benefits Start, Before and After the Reform

Retirement Age	65	65
Age at which C/QPP and OAS Are Taken	65	70
Before the Change		
Total private savings required (\$)	265,000	248,000
Required annualized savings rate	8.2%	7.7%
Replacement rate guaranteed by the public plans at age 70 (objective: 60%)	37%	49%
Proportion of the replacement objective guaranteed by the public plans at age 70	61%	82%
After the Change Fully Implemented		
Total private savings required (\$)	175,000	156,000
Required annualized savings rate	5.4%	4.8%
Replacement rate guaranteed by the public plans at age 70(objective: 60%)	45%	60%
Proportion of the replacement objective guaranteed by the public plans at age 70	74%	100%

Source: Authors' calculations.

Box 2: QPP and CPP, Cut from the Same Cloth

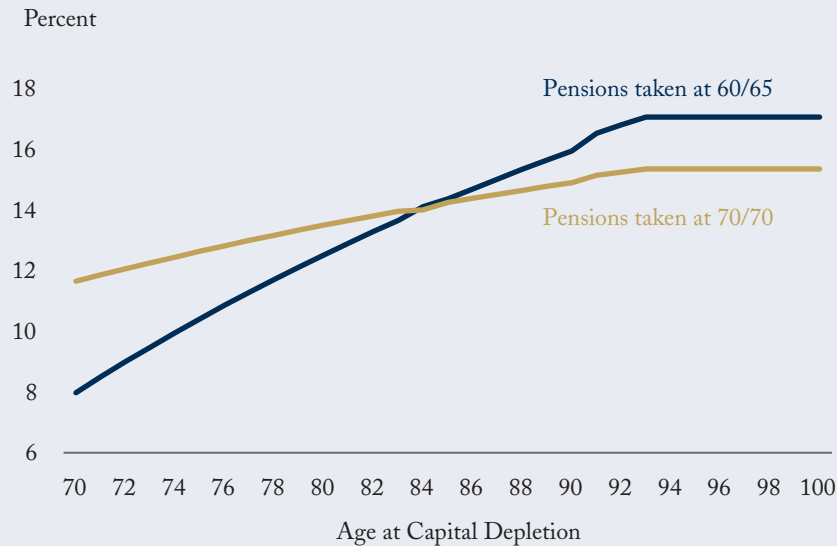
The simulations presented in this E-Brief are all based on the QPP rather than the CPP. Although the two plans are enhanced in the same way, there are differences between them. However, these differences are too subtle to change the simulation results presented here: they would not show up in Figures 1 and 2. The trends and findings identified are thus exactly the same, both under the QPP and CPP.

Box 3: Sensitivity Analysis

The trends presented in this E-Brief hold even when underlying hypotheses are relaxed. For example, lowering the age of capital depletion from 94 to 89 years would reduce the amount of required savings for retirees whose income target is not fully covered by public benefits. For others, the guaranteed public benefits would “cost” the same but simply be offered for a shorter period.

Box 3: continued

Figure 3 : Required Annualized Savings Rate (%)



Source: Authors' calculations.

Relaxing the assumed age of capital depletion highlights the fact that pension deferral lowers the cost of insuring against longevity. A person taking her retirement at 60 (and her C/QPP and OAS as soon as possible), under the current system, and dying before age 84 would not gain from pension deferral. But since most people live longer than that age, they can insure their target lifetime income at a lower cost through deferral (shown by the 70/70 curve in Figure 3).

In a similar fashion, a delayed entry into the workforce or a delayed beginning of saving for retirement would lead to higher required savings. A lower rate of return on savings would have the same effect and make the goal of full public coverage even more desirable, in comparison. The simulator is built such that savings adjust to fill the gap between public benefits and the target replacement rate. As such, the savings rate will always be the adjusting factor when hypotheses are relaxed.

Another Potential Avenue for Enhancement

The reform described above is to be implemented gradually, and not completed until 2065, to ensure no intergenerational transfers. In addition, extending the C/QPP allowable deferral period from the current 70 years old to, say, 75 years, would provide full coverage immediately.

If the deferral helps increase the public coverage of retirees but does not allow them to attain a rate of 100 percent public coverage now, it is because deferral is limited to age 70. By allowing deferral up to age 75, for example, it would become possible for a person who reached the YMPE to obtain full public coverage even before the C/QPP reform is implemented.

Box 4: Enhancement Rate Past 70

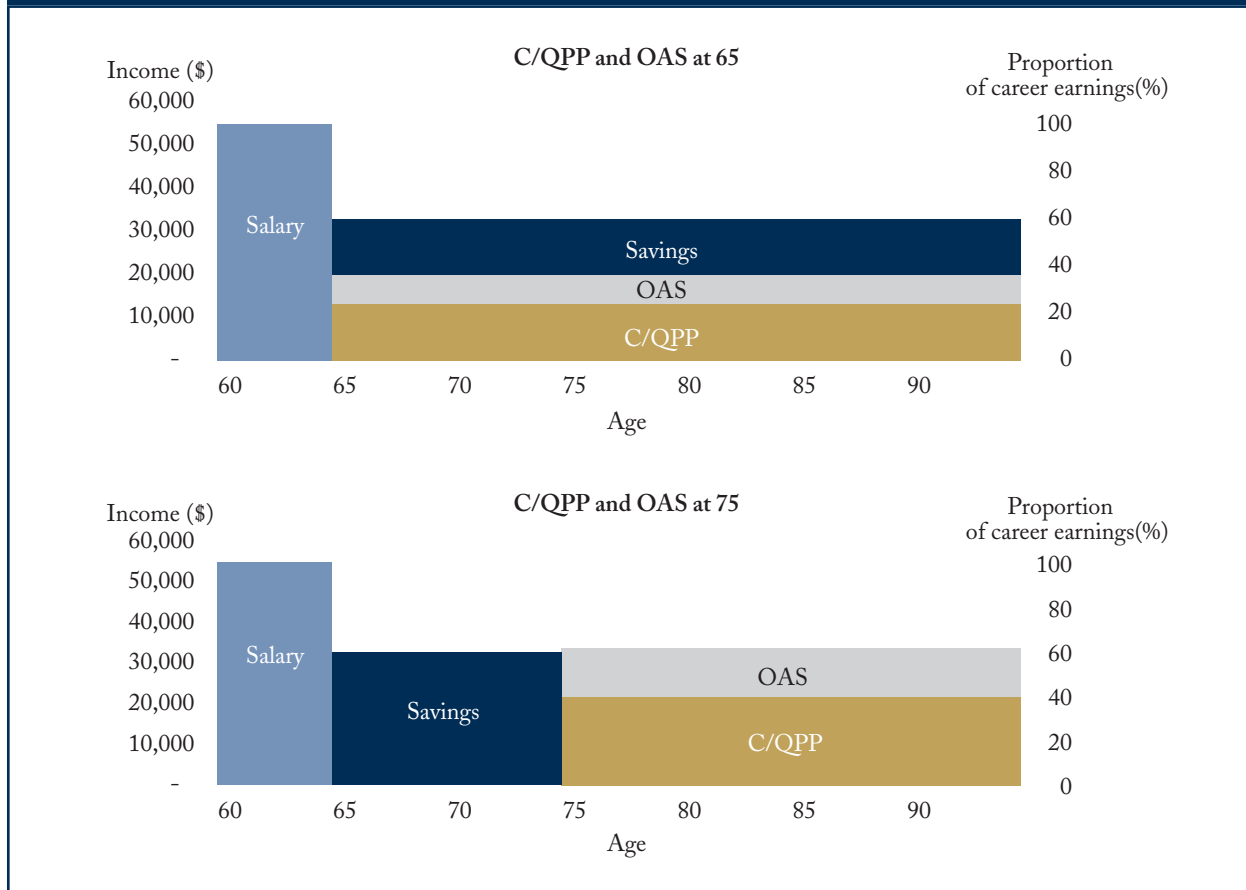
The enhancement rate in case of deferral relies on an actuarial calculation. The benefits provided are more generous because they are provided, on average, for a shorter period of time if the person takes them later. The simulations presented here are based on the assumption that the enhancement rates from 70 to 75 years are the same as those in force between 65 and 70 years. However, from an actuarial standpoint, this enhancement rate should be even higher after 70 years. In this case, the savings required to take the pension at 75 years indicated in Table 4 would be less. Moreover, the public coverage rate for people who apply for deferral past 70 years would be even higher, and it would be possible for the person at the YMPE to attain full public coverage earlier than 75 years.

Table 4: Comparisons Based on Age at which Benefits Start, with the Possibility of Deferring up to 75 Years, Retirement at 65 Years Old

Age at which C/QPP and OAS Are Taken	65	70	75
Total savings required (\$)	265,000	248,000	291,000
Required annualized savings rate	8.2%	7.7%	9.1%
Replacement rate guaranteed by the public plans at age 75 (objective: 60%)	37%	49%	62%
Proportion of the replacement objective guaranteed by the public plans at age 75	61%	82%	103%

Source: Authors' calculations.

Figure 4 : Extending the Deferral Age to 75. Proportion of Targeted Retirement Income From Various Sources, Retirement at 65 Years Old



Source: Authors' calculations.

Box 5: Other Income Levels

The CFFP simulator also covers workers who reached 50 percent of the YMPE (about \$27,500) and those who reached 150 percent (nearly \$82,500). Those whose income is equal to half the YMPE may currently attain full public coverage at retirement, especially because of the GIS from which they may benefit. In their case, pension deferral is less useful, unless they want an income replacement rate upon retirement that exceeds 70 percent.

For those whose income was 150 percent of the YMPE, pension deferral allows them to increase the portion of their target retirement covered by public pensions. However, they cannot hope to attain full coverage by these means, primarily because their employment income is too high. The CPP and QPP are insurance programs that cover income up to a certain level, the YMPE. People whose income exceeds this threshold necessarily have a public pension that, proportional to their employment income, is less than those whose income is below it. However, it should be noted that the C/QPP reform provides for a YMPE increase, which will improve the situation for these people.

Implications for Public Policies

The proposal to extend the deferral period from age 70 to 75 for C/QPP and OAS is made with a view to increasing flexibility to help Canadians get better value from public pension coverage, insofar as they are prepared to save the amounts required to access this option and to cash in their savings more quickly early in their retirement. It is a simple reform that can be implemented at very little cost to these plans. It is a proposal that would complement the announced C/QPP reforms by increasing the options available to middle- and upper-class income workers and, especially, by offering new options well before the more ambitious C/QPP enhancements are completely implemented. Every retiree's situation varies depending on their health, work and saving history, but pension deferral is already a worthwhile option for a majority of them, and the proposed reforms would most likely make it more so.

Many myths exist surrounding retirement planning, and it is a subject about which Canadians regularly say that they do not have all the knowledge required to make informed choices. It is thus important to point out that it would be useful to combine this increased flexibility with efforts to raise awareness and provide information. The simple fact of offering new opportunities does not greatly improve the situation of retirees if no one makes use of them. For example, the existing starting-age flexibility of the plans is not used a great deal by retirees, as evidenced by the fact that only about 3 percent of new QPP beneficiaries and 6 percent of new CPP beneficiaries are over 65 years old.^{4,5}

The reform we propose, accompanied by education, would make the C/QPP and OAS respond better to seniors' needs, especially those in the middle-to-upper income range. We expect that greater benefit flexibility and better understanding of public pension benefits will lead to increased public support for and a stronger feeling of ownership of these plans, which in turn will contribute to the soundness and sustainability of these important components of the Canadian social safety net.

4 See *Retraite Québec (2016), Statistiques 2015 – Régime de rentes du Québec* [statistics on the Quebec pension plan], p. 64.

5 See *Canada Pension Plan (CPP) – Number of New Retirement Pension by Age, Gender and by Calendar Year*. Available at: 2015, <https://open.canada.ca/data/en/dataset/ea075020-b9f4-43c4-8d04-075132cbbc7d>.

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