



PENSION PAPERS

## Ottawa's Pension Gap: The Growing and Under-reported Cost of Federal Employee Pensions

By

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- As private-sector pension providers and individual savers know, low rates of return require them to save more to fund desired incomes in retirement – a fact reflected in solvency valuations of private-sector pension plans, which must use market yields to value their promises.
- Public-sector pension plans, however, typically do not use market yields to calculate their liabilities: if they did, Ottawa's unfunded pension liability would stand at \$227 billion – some \$80 billion larger than reported in the Public Accounts.
- The value of the typical federal employee's pension entitlement grows at more than 40 percent of pay annually – much faster than the contributions to fund it – putting taxpayers, most of whom face federal tax rules preventing them from funding as rich a retirement for themselves, at risk of having to bail out Ottawa's pension plans.

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As many Canadians are now painfully learning, low rates of return force anyone – whether a pension plan sponsor or an individual saver – to set aside more saving to fund a given level of retirement income.<sup>1</sup> Expectations of future long-term economic growth, and rates of return on good-quality debt, are at historic lows<sup>2</sup> – a key reason why so many defined-benefit (DB) pension plans are in deep trouble.

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- 1 Providing a typical pension indexed to inflation requires almost twice as much in invested assets with a real interest rate of 1 percent as it does with a real interest rate of 5 percent (OTTP 2011).
- 2 In particular, interest rates on federal government bonds and treasury bills recently reached their lowest levels of the post-war period, and have sank to levels only previously experienced in the 1940s.

Table 1: Federal Pension Plans Balance Sheet at 31 March 2011

	Public Accounts	Fair Value
Assets (1)	54.0	58.6
Liabilities (2)	213.3	285.2
Unamortized Estimation Adjustments	-13.2	
<i>Balance</i>	<i>146.1</i>	<i>226.6</i>

Notes:

1. Includes investments and contributions receivable for past service.
2. Fair value estimated using methodology found in footnote 5, and explained in Laurin and Robson (2009).

Sources: Public Accounts 2010/11; authors' calculations.

Most of today's DB plans took shape during a period when assumptions of high rates of return seemed reasonable, and accommodative accounting allowed a degree of optimism in projections. In the private sector, where pension plans must measure their obligations using actual market yields, the costs and risks associated with traditional defined-benefit (DB) pension plans now stand out starkly. In the public sector, however, looser standards mean that plans – even plans that are unfunded, with no assets that could earn high returns – still use made-up rates of return in valuing their liabilities. Declining yields have boosted the true cost of their promises, resulting in unreported unfunded liabilities.

The DB pensions the federal government provides its employees are a key example. The most important of these are the Public Service (PS), the Canadian Forces (CF), and the Royal Canadian Mounted Police (RCMP) plans, but there are many others. Members of Parliament and judges have special plans. Several include Retirement Compensation Arrangements that provide benefits above the maximums allowed under federal tax rules for registered pension plans. Since 2000, some of these plans have been partially funded whereas others – including the arrangements providing benefits above the income-tax limits – hold no assets to back their promises.

The Public Accounts for Ottawa's 2010/11 fiscal year reported the financial position of these plans as at 31 March 2011. The key Public Accounts numbers appear in the first column of Table 1.

To get an economically meaningful tally of federal pension obligations requires some adjustments to the Public Accounts figures. First, we must replace the reported "smoothed" asset value with the actual market value, as shown in the Fair Value column of the table.<sup>3</sup>

Second, and more important, we need to adjust the liabilities. Ottawa arrives at the reported \$213 billion for its obligations by discounting the future payments using notional interest rates. One of these – a legacy from the days when federal pensions were completely unfunded – is a moving average of past nominal yields on 20-year federal bonds. The other is an assumed return, currently about 4.2 percent in real terms, on fund assets for benefits earned since 2000. Both these interest rates are well above anything currently available on any asset that matches the plans' obligations.

Suppose a Canadian not employed by the federal government wanted to set aside a nest-egg that would provide retirement income like that promised to a federal employee. He or she would invest in a security that is backed by taxpayers and indexed to

3 Smoothing the value of assets is another legacy accounting practice still prevalent in public-sector plans. In the case of the federal plans, these values are based on expected returns "whereby the fluctuations between the market value and expected market value are included in estimation adjustments over a five-year period provided that the market-related value of investments remains within a limit of plus or minus 10 percent of the market value" (RGC 2011, p 2.18). This means that deviations in investment performance relative to expectations register with a delay, whereas deviations that create a gap greater than 10 percent between actual and expected market value are amortized over an even longer period of time (estimated average remaining service lives of plan members).

inflation. Such a security exists: the federal government's real return bond (RRB).<sup>4</sup> The amount this person would need to put aside to achieve his or her goal – leaving aside retail costs and ignoring for the moment the tax limits on individual saving that would obstruct the project – would be a function of the yield on the RRB. On March 31, 2011, the RRB yield was not the 4.2 percent return assumed in the statements of Ottawa's new pension accruals, but a mere 1.15 percent. At that yield, the nest-egg required to pay Ottawa's pension promises would not have been the reported \$213 billion shown in the first column of Table 1, but the \$285 billion shown in the second column.<sup>5</sup>

The final adjustment to reported values relates to the third entry in the Public Accounts column of Table 1: "unamortized estimation adjustments." This number represents changes in asset values and liability estimates (using the government's accounting) that are not yet reflected in the Public Accounts. Fair-value accounting recognizes all such changes immediately, so the second column contains no such entry.

Ottawa's net pension obligation at fair value thus stood at almost \$227 billion on March 31, 2011 – some \$80 billion larger than reported in the Public Accounts. These obligations are part of the federal government's debt, so this fair-value calculation raises the debt by the same amount. Because the gap between reported and fair-value pension obligations has grown over time (Figure 1), moreover, this restatement of the debt affects Ottawa's annual budget balances: the surpluses reported from 2001/02 to 2007/08 were smaller, or were deficits, and the deficits since then were much larger. In 2010/11 alone, the deficit would not have been the \$31 billion reported, but half again larger: almost \$47 billion.

As the example of a non-federal employee seeking to achieve retirement income like that promised to his or her federal-employee counterpart hints, these colossal numbers reflect a gross unfairness in Canada's pension system. Sensitivities to rates of return provided in the Chief Actuary's most recent valuations of the main federal plans – those for the Public Service, RCMP and CF (OCA 2009a, 2009b, 2009c) – suggest that the annual saving rates needed to achieve equivalent tax-backed, indexed pensions at the RRB yield on March 31, 2011, would have been 38 percent, 46 percent and 46 percent of pay respectively. At the time of writing, the yield on the RRB was a mere 0.57 percent. At that yield, the required saving rates would be even higher: 43, 53 and 52 percent. And those calculations take no account of the fact that the opportunities for tax-deferred saving federal employees get inside their DB plans are not available to savers in defined-contribution plans or RRSPs. For them, limited to saving of up to 18 percent of earnings and capped in the low \$20,000s, the pre-tax saving effort would need to be much greater.

Unhappily, those Canadians who must prepare for retirement in a much less congenial environment are also on the hook for the growing unfunded liability in the federal plans. So this look at Ottawa's pensions suggests three types of reforms to improve Canada's retirement-income system.

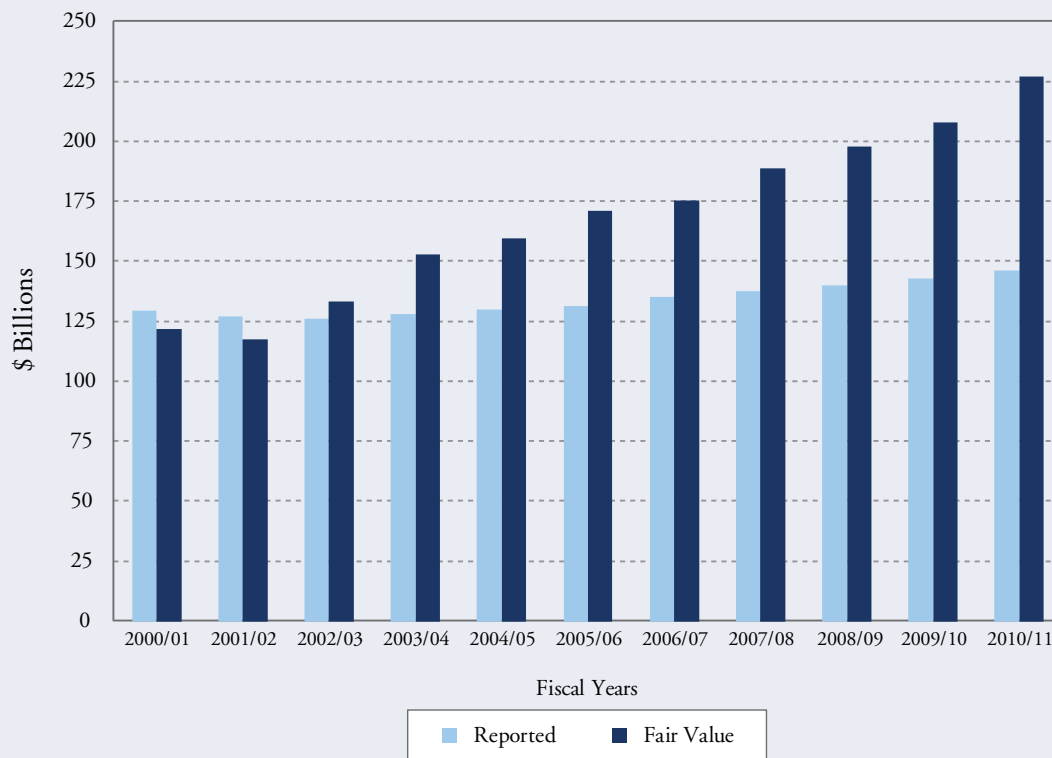
In the medium term, the benefit structure of these plans needs changing. Final-salary-based DB plans with early retirement incentives distort labour markets in many ways; career-average-salary plans make more sense. Some flexibility on the benefit side to share risks between the sponsor and the participants has become common in other public-sector plans in Canada: such a target-benefit structure would also make sense for federal plans.

Since current low yields on low-risk securities, and the RRB particularly, affect everyone trying to achieve a comfortable retirement, these calculations also highlight the desirability of increasing the tax-deferred saving room available to the rest

4 Notwithstanding some controversy over using RRB yields to value government pensions, no alternative is better (Laurin and Robson 2009). The thought-experiment about the non-federal employee seeking the same type of retirement income, who would need to buy RRBs, makes this clear, and what is an asset to the plan participant must logically be a liability to the plan sponsor. It seems likely – and not unreasonable – that if the government wanted to buy out participants in these plans using a valuation rate above the RRB yield, the beneficiaries would balk.

5 To convert the liabilities discounted at the government's rates to liabilities discounted at the RRB rate, we used the sensitivities to discount rates reported in the Public Accounts. In 2011, RGC (2011, p. 2.21) shows that a percentage point decrease in the discount rate increases the pension obligation by \$34.6 billion. We weight the discount rates for the superannuation accounts and the pension funds by their reported dollar values to get a single effective (real) discount rate, and multiply the gap between that and the RRB yield to get the fair-value accrued pension obligation (Laurin and Robson 2009).

Figure 1: Net Federal Pension Obligation, 2000/01 to 2010/11: As Reported versus Fair-Value Estimate



Source: Public Accounts; authors' calculations as described in footnote 5, and explained in Laurin and Robson (2009).

of the population to match that given to Ottawa's employees. One route to that goal would be establishing a uniform, lifetime limit for accumulated retirement wealth for all Canadians as advocated by Pierlot (2011).

The third reform is to ensure that, whatever the rate at which federal pension entitlements are accruing, actual money is flowing into the plans to match those entitlements – by raising contribution rates and putting the additional cash into existing or new arms-length funds. Even if much of that extra cash ends up funding purchases of federal bonds and other debt instruments, the need to pay the full cost of federal compensation in cash will be a powerful discipline, as will the need for federal debt issues to compete with other potential investments for the fund managers. To let this unfunded obligation expand is unconscionable – all the more so to the extent that tax and other laws limit non-federal employees' opportunities to build retirement wealth, some of which may be needed to bail out the federal plans.

Fair-value reporting of Ottawa's pension obligations highlights three imperatives. Over time, federal plan benefits need rationalization. Meanwhile, private-sector employees need much more generous treatment in their own quests for secure retirements. And higher contributions should boost the actual assets held by federal-employee pension plans, to protect Canadian taxpayers from the double whammy of unexpectedly low retirement incomes, and unexpectedly high taxes as they bail out the plans of their more fortunate former government-employee compatriots.

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