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Lessons from Canada
Investing the Trust Fund in Equities

Canada introduced equity investments into its Social Security program by using the “trust fund investment” approach; it was the first of the four Anglo-Saxon nations under review to expand its retirement income system. The legislation was enacted by the end of the 1960s. Canada’s response to demographic transition, however, came late, in 1997. In that year, Canada restored solvency to its social insurance program by accelerating scheduled tax increases to refund future benefits and by investing some of the accumulated assets in equities.

To achieve a specified retirement income objective, using the social insurance trust fund as a vehicle for investing equities has significant financial advantages over the use of individual accounts. This approach, however, raises serious political issues, given the power it potentially puts in the hands of government. Canada adopted an elaborate governance design, taken largely from the governance of employer defined-benefit plans, to minimize political involvement in the management of trust fund assets. Although the system has been in place for only a few years, the Canadian experience to date suggests that the problem is manageable. It also appears considerably less daunting than governing equity investments in a myriad of Social Security individual accounts.

CANADIAN SYSTEM AT THE END OF THE 1980s

For the first two decades of the postwar period, Canada had a simple Anglo-Saxon two-tier retirement income system. The first tier was the public Old Age Security program, which had evolved out of Canada’s 1927 means-tested welfare program for the elderly. Old Age Security was not a social insurance program, funded by a payroll tax, but a demogrant funded out of general revenues. The program gave all long-
term residents, age 70 and over, a basic income equal to about 15 percent of national average earnings. This amount was less than the 20 percent of national average earnings typically guaranteed by the 1927 means-tested program. But the Canadian provinces had contributed to the older means-tested program, while Old Age Security was entirely funded by the federal government, and most provinces supplemented the new federal demogrant.

As in other Anglo-Saxon nations, tax-advantaged employer plans made up the second tier in the Canadian system. Coverage grew rapidly after the Second World War, rising from 10 to 15 percent of wage and salary workers in the 1930s to 40 percent by 1970. The primary drivers were much the same as in other Anglo-Saxon nations: 1) the low level of public old-age pensions; 2) the growth of employers that traditionally offer pensions, such as governments and large corporations, and of unions, which made pensions a high priority in postwar collective bargaining; and 3) the expansion of income taxation, which made the favorable treatment accorded pension saving increasingly attractive.\(^1\)

Like other Anglo-Saxon nations, Canada also found its retirement income system increasingly deficient toward the end of the long postwar boom. While the incomes of working-age adults rose steadily, the elderly were left behind. They had little or no income from work or savings, and few qualified for a reasonable employer pension. By the early 1960s, nearly 45 percent of the elderly were classified as poor, and the income gap between workers and their parents was widening (Osberg 2001).

The expansion of the Canadian retirement income system in the late 1960s focused primarily on the problem of old-age poverty. Between 1965 and 1969, Canada

- Reduced the age of eligibility for Old Age Security from 70 to 65.
- Introduced a new earnings-related social insurance program, the Canada/Quebec Pension Plan (C/QPP). The program was funded by a payroll tax and, at age 65, provided a pension that replaced 25 percent of earnings up to the national average.\(^2\)
- Introduced an income-tested Guaranteed Income Supplement, which was expected to become irrelevant with the maturation of the C/QPP.\(^3\)
• Broadened access and improved the security of employer pension benefits by imposing vesting, funding, and fiduciary requirements.

Further details are provided in Box 6.1.

The expanded Canadian system was quite similar to that developed in the United States. The Old Age Security and C/QPP programs combined provided the hypothetical “average earner” 40 percent of preretirement earnings, close to the 42 percent policy model replacement rate for the “average earner” in the expanded Social Security program.

The Canadian system differed from that in the United States in the unusually strong role of the provinces in pension policy and in the Canadian focus on poverty reduction. The role of the provinces is clearly seen in the regulation of employer plans and in the design of the public earnings-related pension program. The Pension Benefits Acts, which regulated employer plans, required the enactment of legislation at the provincial as well as national level. As a result, the new vesting, funding, and fiduciary requirements varied somewhat from province to province. In the new public earnings-related pension program, the provinces were the designated “stewards” of the program, along with the national government. Any major reform required the approval of two-thirds of the provinces with two-thirds of the population. Because of the strength of French-Canadian nationalism in Quebec, the province was allowed to set up a separate Quebec Pension Plan (QPP), distinct from the Canada Pension Plan (CPP), so long as it had comparable benefits and contribution rates.

The expansion of the Canadian system was also highly targeted to poverty reduction. Thus C/QPP does not replace earnings above the national average. The Guaranteed Income Supplement also set a retirement income floor significantly higher than that in the United States or the United Kingdom and similar to that provided by the Australian Age Pension. Individuals who did not qualify for a full earnings-related benefit—primarily older cohorts, low-wage workers, and widows—were assured an income equal to about a third of the national average wage; couples were assured about half the national average wage. As this guaranteed income was not much below the combined benefit from the Old Age Security program and the C/QPP (Figure 6.1), the Canadian public system, as John Myles put it, “functioned approximately like a
Box 6.1 The Canadian Retirement Income System at the End of the 1970s

1) Public programs

Old Age Security:
• A flat payment of about 15 percent of average earnings provided to all long-term residents.
• Funded out of general revenues.

Canada/Quebec Pension Plan:
• A pension of 25 percent of indexed earnings, on earnings up to national average earnings.
• Funded by payroll tax of 3.6 percent on earnings between 10 and 100 percent of average earnings.

Guaranteed Income Supplement:
• An income-tested benefit that guarantees individuals age 65 and older an income equal to about a third of national average earnings, reduced by $C0.50 for each $C1 of other income.
• Funded out of general revenues.

2) Employer plans

Covered about 45 percent of wage and salary workers:
• About 31 percent of private sector wage and salary workers.
• 100 percent of public sector wage and salary workers.
• 90 percent covered by a defined-benefit plan.

Key features of Canadian employer defined-benefit plans:
• The common benefit was 2 percent of final salary per year of service, reduced by a portion of the worker’s public pension.
• Mandatory vesting, typically at age 45 with 15 years of service.
• More than half required employee contributions.
• Employers topped up the funding to meet the cost of currently accrued benefits and to pay down funding deficits.

Lessons from Canada

The Canadian public system succeeded in its objective of reducing old-age poverty. As the C/QPP program matured and delivered full benefits to an increasing share of the elderly population, the elderly poverty rate fell from 44 percent in 1961 to 18 percent in 1999 (Figure 6.2). However, the maturation of the C/QPP did not eliminate the need for the Guaranteed Income Supplement, as originally envisaged. About a third of the elderly in 2001 still received these benefits, down from about half in 1985. These benefits are particularly important to older widows, who continue to have incomes somewhat below, though not far below, the official Canadian poverty line.5

**Figure 6.1 Canadian Government Retirement Benefits, by Quintiles, 1980**

![Diagram showing Canadian Government Retirement Benefits, by Quintiles, 1980](image)

**NOTE:** OAS/GIS = Old Age Security/Guaranteed Income Supplement; C/QPP = Canada/Quebec Pension Plan.

**SOURCE:** Myles (2000).
Canada, like other industrial nations, reformed its retirement income system at the end of the twentieth century in response to the greater instability in employer plans and the impending transition to a much older society. Like the United States and the United Kingdom, Canada imposed new funding regulations on employer plans to protect accrued pension benefits in the event the sponsor went bankrupt. It responded to the demographic transition by reducing benefits and raising taxes. Canada’s primary response to the challenge of population aging, however, was to prefund the C/QPP and invest the accumulated assets in equities.
The Reform of Employer-Sponsored Plans

Similar to other Anglo-Saxon nations, Canada imposed new regulations on employer plans to protect worker benefits should the sponsor go bankrupt. If an existing plan did not have enough assets to satisfy its termination liability—the value of pensions based on current wages, discounted to the present using the interest rate on low-risk bonds—the sponsor had to eliminate the deficit within five years.

From the enactment of the new regulations in 1987 through the end of the 1990s, the reform appeared quite successful. Financial markets were unusually robust, and most plans showed comfortable surpluses when valued on either a continuing or termination basis. Employer plans were so well funded that many sponsors in Canada, as in the United States and elsewhere, used the assets to fund sweetened early retirement benefits and take extended funding holidays.

But, as we have seen, the financial condition of employer defined-benefit plans is highly sensitive to shifts in financial conditions. It took only a few years for the downturn at the beginning of the new century to pull employer defined-benefit plans deeply into the red. Watson Wyatt, the pension consulting firm, estimates that plans sponsored by companies listed on the Toronto Stock exchange had a “funding ratio” of about 115 percent at year-end 2000—that is, pension fund assets were about 15 percent greater than the present value of plan liabilities. By May 2003, plan assets covered barely 80 percent of benefit obligations, similar to the experience elsewhere. The new funding rules thus became binding, requiring sponsors to extinguish termination-valuation deficits within five years (Watson Wyatt 2004).

The new rules were largely responsible for lifting the overall funding ratio above 85 percent by year-end 2003. A recovery in stock prices increased the value of pension fund assets, but this was largely offset by continuing declines in the interest rate on the low-risk bonds used to value termination liabilities. It was the stepped-up contributions, required in response to the termination valuation deficits, that strengthened the finances of employer plans and protected the pension benefits accrued by the sponsor’s workers (Watson Wyatt 2004, 2005b).

A major shortcoming in this approach to maintaining solvency, however, was the perverse pension funding pattern it created over the business cycle. During upswings, employer plans were generally given
a clean bill of financial health by both the ongoing and termination solvency measures, so funding requirements were low. The government had also enacted the “excess surplus” rule, similar to rules enacted elsewhere, that prevented sponsors of apparently well-funded plans from making tax-deductible pension contributions. But in economic downturns, when sponsors were financially stressed, the solvency measures flashed red and the new funding rules forced a sharp spike in contributions.

The new funding rules were especially onerous now that most employer plans were mature. They had substantial asset accumulations and their financial program called for investment income to fund about two-thirds of benefit payments. The financial downturn at the turn of the century thus produced losses that dwarfed the employer’s annual contribution. The demand for increased contributions during economic downturns actually contributed to the bankruptcy of weakened sponsors, with Air Canada the best known example (Le Pan 2003).

As in other Anglo-Saxon nations, the demand for greater contributions in the downturn of the early 2000s accelerated the shift of employers out of defined-benefit plans. The coverage of employer defined-benefit plans had not declined as dramatically in Canada, or the United Kingdom, as it had in the United States. In 2003, about 35 percent of Canadian wage and salary workers were covered by such plans. But a 2004 survey of 68 large firms, conducted by Watson Wyatt and the Conference Board, found that nearly 40 percent of these employers had either eliminated a defined-benefit plan, converted one to a defined-contribution format, or were planning to do so (Watson Wyatt 2005b).

Of the companies in the 2004 Watson Wyatt survey with under-funded plans, nearly 60 percent had taken a contribution holiday within the past four years. Many had been prevented from contributing by the excess surplus rule, but the great majority had been happy not to contribute—implicitly accepting the solvency measurements taken at the height of the boom as the best indication of the long-term health of their plans (Watson Wyatt 2004, 2005b).

The problem with both statutory measures of solvency—both the ongoing and termination measures—is that they consider only the current value of plan assets and liabilities. They ignore the substantial risks involved in funding long-term fixed obligations with equities. As experience makes clear, the value of assets and liabilities in such plans can
rapidly change in ways that dramatically reduce their ability to satisfy benefit obligations.

**The Reform of the Public Pension System**

Canada, like other industrial nations, responded to the impending demographic transition by reducing public old-age pension benefits and raising contributions. But because the Canadian program focused on poverty reduction, the cuts were small. Canada’s primary response to the challenge of population aging was the 1997 decision to prefund the C/QPP and invest the accumulated assets in equities. The reform was sparked by the government actuary’s 1995 report on the program, which projected a sharp rise in benefit payments in the coming century. To fund these benefits on a pay-as-you-go basis, contributions would need to rise from the current 5.6 percent of covered earnings to 14.2 percent by 2030 (Federal, Provincial, and Territorial Governments of Canada 1996a,b).

There was significant opposition to cutting CPP benefits, primarily from the Liberal end of the political spectrum. Benefit cuts would lower Canada’s retirement income floor and expand the size of the income-tested Guaranteed Income Supplement program. As major reforms to the C/QPP program required the approval of two-thirds of Canada’s provinces with two-thirds of the population, significant cuts were pushed off the table.

There was also stiff resistance to the nearly threefold increase in contributions required to fund benefits in 2030 on a pay-as-you-go basis. No politician wants to enact such a substantial tax increase, especially to maintain rather than increase government benefits. But the primary objection to such a tax increase, and to continued pay-as-you-go funding, was intergenerational fairness. As expressed in an overview of the problem prepared by the Federal, Provincial, and Territorial Governments of Canada, the fair approach to pension funding would have each generation contributing much the same share of earnings and in retirement getting much the same replacement rate (Federal, Provincial, and Territorial Governments of Canada 1996a,b; Pesando 2001).

The key reform of the C/QPP program enacted in 1997 thus involved a rapid rise in contributions to its projected uniform long-term rate. The rapid rise was designed to build-up the C/QPP trust fund in the
near term, with income on trust fund assets augmenting contributions to pay benefits in the out-years. To increase trust fund income and reduce the long-term contribution rate, the C/QPP would invest trust fund assets in equities.\textsuperscript{12}

The CPP funding model developed by the government actuary projects contributions, set at 9.9 percent of covered earnings, to exceed benefit payments through 2020. The aging population would then push outlays above payroll tax receipts. Contributions will cover barely 85 percent of benefit payments by the end of the 2030s, then stabilize at that level. By 2020, however, assets in the CPP trust fund should exceed five times annual outlays. With an estimated real return of 4.1 percent, CPP investment income should exceed 20 percent of annual outlays. Total inflows—tax receipts plus investment income—in fact continuously exceed outflows by a significant margin. Trust fund assets continue to rise and at the end of the planning horizon, in 2075, are projected at seven times annual benefit outlays (Office of the Chief Actuary 2004).

The decision to invest C/QPP assets in equities, with their greater expected return but also greater risk, was strongly influenced by the contrasting experience of the QPP and CPP trust funds. Both plans had accumulated assets, equal to about two years of benefit payments, as a buffer against cash flow shortfalls. Each plan also pursued a policy of “social investment”—investing trust fund assets to achieve “socially desirable” objectives in addition to traditional financial goals. And both notions of “socially desirable” reflected the influence of the Canadian provinces in national pension policy. The CPP invested its assets in non-marketable provincial bonds with a yield equal to that on federal debt. As the federal government paid a lower interest rate than the provinces, and as the bonds were not marketable, the CPP was subsidizing the provincial governments. Quebec adopted a more active social investment policy, with the QPP directed to buy equities and fund projects thought to advance the economic development of the province. Such active “social investment” strategies also tend to produce sub-par risk-adjusted returns, but the three decades in which the C/QPP programs had been in existence had been a boom period for equities. Furthermore, the QPP over time had moved away from social investing toward a policy that emphasized standard risk-adjusted return optimization. The QPP thus clearly outperformed the CPP. With this experience in the advantages
of equity investments in social insurance programs, the 1997 reformers decided to invest CPP assets in equities (Béland forthcoming [2006]; Béland and Myles 2005; CPP 1997; Mendelson 2005).13

The 1997 CPP reform, however, rejected social investment. It defined the sole objective of the CPP Investment Board (CPPIB) as acting in the best interests of plan participants—both active and retired—under the governing notion that each generation should contribute much the same share of earnings and get much the same benefits. That investment decisions are made solely in the best interests of plan participants is the fiduciary standard that ERISA and the Canadian Pension Benefit Acts require of employer defined-benefit plans. To pursue such a policy at the CPP, the 1997 legislation created the CPPIB Board, a quasi-independent agency explicitly modeled on the “institutional investor” governance system that ERISA and the Pension Benefits Acts mandate for publicly regulated employer plans. In addition to defining participants as the sole beneficiaries of the plan, this governance system requires the CPPIB to “exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances” when handling plan assets and to provide periodic performance reports to assure accountability (CPPIB 1997; Slater 1997b).

The 1997 legislation defined an elaborate set of procedures designed to make the CPPIB as independent from the government as possible. To name the members of the investment board, the participating provincial governments, as “stewards” of the program, would each select one member of the nominating committee. That committee would draw up a list of candidates that excluded government officials and included investment professionals. The federal Minister of Finance, in consultation with the provincial Ministers of Finance, would then select the investment board members. To assure efficiency, transparency, and public accountability, the board was required to conduct periodic internal performance reviews, issue quarterly and annual financial reports, organize biennial town meetings in each province, and undergo a thorough triennial review (CPP 1997; Slater 1997b).

The CPPIB has embraced the institutional investor model. “As a long-term investor, with substantial annual cash inflows for the next twenty years,” it intends to “build a broad-based portfolio” that includes not just investments in stocks and bonds, but also in merchant banking, real estate, infrastructure projects, venture capital, private equity,
and buyout funds (CPPIB 2003). The investment board also intends to become active in corporate governance under the notion that “the thoughtful voting of our proxies can constructively influence corporate performance and have a positive impact on the value of our portfolio” (CPPIB 2005).

AN ASSESSMENT OF THE REFORMED CANADIAN SYSTEM

It is too early to evaluate the success of the 1997 reform to the CPP program and its new funding model. The primary concerns, however, are in managing the financial and political risks inherent in a social insurance program funded with equities.

In terms of managing the financial risks, one thing is clear. The CPP and other social insurance programs should be managed quite differently than employer defined-benefit plans. This is clearly indicated in the way financial health is evaluated. In employer plans, the standard measure of solvency is the funded ratio. Whether evaluated on an ongoing or termination basis, the basic question is whether the assets in the pension fund are sufficient to pay promised benefits. In social insurance programs, by contrast, the basic solvency measure is whether the current level of contributions is sufficient, given the financial structure of the program, to pay promised benefits. Thus, the U.S. Social Security program in 2006 faces a shortfall over the 75-year planning horizon equal to 2 percent of covered earnings. The reason why social insurance programs are evaluated this way is because the government is presumed to continue indefinitely. Thus, the retirement income benefits earned by workers do not need to be secured against the bankruptcy of the sponsor with assets held in a segregated pension fund.

As we have seen, equity investments make the funded ratio a weak measure of solvency and expose employer defined-benefit plans to powerful risks. The introduction of equity investments exposes the CPP, like other retirement income programs, to three types of risk: 1) the standard risk that year-to-year returns will fluctuate around the expected long-run rate and could even be negative for a considerable stretch of time, 2) the risk that the long-run rate of return could be less than expected,
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and 3) the risk that the plan’s financial managers are infected by euphoria in booms and trepidation in busts.

The CPP is actually in a very strong position for managing the first type of risk. If the required triennial review identifies a funding shortfall, similar to that caused by the financial downturn at the turn of the century, the 1997 legislation included an automatic adjustment mechanism that restores solvency by freezing benefits and raising the contribution rate. The political system could enact a different response, but the stabilizer is a guarantee that the CPP’s finances will not go off the rails.14

The required adjustments, moreover, would not be as draconian as those required of employer plans in the early twenty-first century. As the government is presumed to continue indefinitely, the automatic stabilizer would restore balance over a 100-year period—not the five years given to employer plans with termination valuation deficits. The CPP is also far less reliant on investment income than a mature employer plan, and thus less vulnerable to the risk in investment returns. The funding model projects investment income ultimately providing over 20 percent of CPP inflows, with total inflows 10 to 15 percent greater than projected outlays. In mature employer plans, by contrast, investment income is generally more than twice as large as employer contributions. Financial fluctuations should thus have a much more moderate effect on CPP solvency.15

The second financial risk—that the long-run rate of return on assets is less than projected—presents a more serious problem. To protect against this risk, the CPP funding model assumes a conservative 50–50 allocation of equities and bonds and a conservative 4.1 percent real return on trust fund assets. Using these conservative assumptions, the model also projects substantial cash-flow surpluses and a rising ratio of assets to outlays. If investment returns do decline to the point where the actuarial review finds the 9.9 percent contribution rate inadequate, the automatic adjustment mechanism would restore balance by freezing benefits and raising the contribution rate (Ambachtsheer 1996; Sarney and Preneta 2001–2002; Slater 1997a). The government could also enact a different set of adjustments, for example, raising taxes or cutting benefits in a different way.

The CPP funding model also requires disciplined long-term investment management at the CPPIB, and thus far it has had such a policy.
Even though investment returns were extremely volatile over the early years of the reform (see Figure 6.3), the CPPIB has functioned as a solid long-term investor. Remarking in the 2004 Annual Report, the CPPIB stated that “A large part of the reversal in the CPP’s investment fortunes . . . was the result of our decision to continue to build the equity portfolio throughout the market collapse that began in the fall of 2000 and continued to the spring of 2003, one of the worst declines in a century. Many Canadians were concerned that we were on the wrong track and should invest in bonds, or hold cash and try to time the market bottom. Our decision to stay the course and buy shares in hundreds of Canadian and foreign companies resulted in equity gains of $7.2 billion versus a $4.1 billion loss a year earlier. For us, the stock market collapse was a buying opportunity in a long investment journey.”

From a purely financial perspective, the government is thus in a far better position than employers to manage the risk of equity investment

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**Figure 6.3 Canadian Pension Plan Investment Returns, 2000–2005**

![Graph showing investment returns from 2000 to 2005.](image)

**NOTE:** If $C100 were invested at the beginning of 2000 and experienced these returns, its value would be $C169 at the end of 2005. This would be an internal rate of return of 8.7 percent per annum.

**SOURCE:** CPPIB (2005).
in a defined-benefit pension program. And, in terms of managing investment risk, the government is light years better than individuals with individual retirement accounts.

In addition to financial risks, another concern is the political risk inherent in using the trust fund as the vehicle for introducing equities into the social security program. The CPPIB was designed as an “institutional investor,” no different from the investment boards of employer defined-benefit plans. Researchers have identified four ways in which government influence could turn public pension reserve managers, like the CPPIB, into something other than a standard institutional investor. The four risks are that the CPP would (Palacios 2002):

1) Become a captive source of credit that would fund the government rather than invest in assets better suited to a long-term retirement income program and would do so at below-market rates. This was clearly the case in the initial CPP funding program, which only bought Provincial government bonds and subsidized provincial borrowing. Such a policy clearly sacrificed the financial health of the pension program. To the extent that it increased government spending, it also reversed the contribution to national saving created by the funding program.

2) Invest in “socially desirable” projects and/or avoid “socially undesirable” projects. This was clearly the case in the Quebec pension, which explicitly targeted investments designed to advance the provincial and French-Canadian economy. This policy also resulted in subpar risk-adjusted returns. By introducing a diffuse new set of objectives, other than the standard financial goals, it also made it more difficult to oversee and manage the QPP.

3) Use its power as a major shareholder to promote “socially desirable” and/or avoid “socially undesirable” corporate decisions. Such decisions could involve plant closings, purchasing decisions, union recognition, lobbying practices, charitable contributions, and the like. In addition to sacrificing financial performance and diminishing the nation’s ability to oversee the CPPIB, this policy could give government a tremendous lever of control over Canada’s economy and society.
4) Prop up financial markets in a “crisis.” In addition to sacrificing returns and weakening the governance of the CPPIB, such interventions require enormous amounts of capital and are rarely effective.

Most Canadian observers see the adoption of such policies at the CPPIB as highly unlikely. Because of the explicit “institutional investor” mandates included in the 1997 legislation, and the elaborate governance and reporting structures, the CPPIB is widely regarded as professional, independent, and accountable.

Some critics contend that the government has too little influence on the CPPIB. They worry that the “institutional investor” model unduly strengthens the hand of “capital” against competing, and weaker, “socially desirable” interests. Such critics have objected, for example, to CPP investments in Talisman Energy, a large Canadian oil and gas producer with operations in Sudan. Because Talisman funded the Sudanese government’s widely criticized military campaigns, the U.S. government threatened to bar it from U.S. financial markets. Critics also object to CPP investments in buyout funds that finance corporate restructurings that result in layoffs and plant closings. Members of Parliament have also called for “ethical” screens, which would restrict investments in tobacco companies and providers of other “socially undesirable” products (Cooke 2003; Social Investment Organization 2002).

Calls for a more “socially responsible” investment policy will no doubt continue. In time, this could result in a change in the CPPIB’s mandate. The acceptance of “social investment” as a policy objective might advance Canada’s larger public policy objectives. Such a change, however, would clearly jeopardize the CPP funding model and its contribution to retirement income security.

CONCLUSION

The Canadian retirement income system is distinguished by 1) the relatively narrow focus of government programs on assuring a basic old-age income with minimal income-testing, 2) the long reliance on both general revenues and a payroll tax to fund these programs, and
3) its recent policy of investing social insurance trust fund assets in equities.

Canadian public pensions, even after the expansion in the late 1960s, were modest and largely targeted to low and middle earners. Even more than public pensions in the United States and the United Kingdom, Canada had little “fat” to cut when programs for the elderly came under pressure after 1980.

The Canadian system is also distinguished by its long reliance on both general revenues and a payroll tax to finance old-age pensions. This mixed revenue base gave Canada the flexibility to develop a mixed fiscal response to the demographic transition. It increased the C/QPP payroll tax and built up the program trust funds with the goal of stabilizing the long-term contribution rate. The Old Age Security and Guaranteed Income Supplement programs remain pay-as-you-go programs funded out of general revenues, so their claim on government budgets will rise as the population ages. But general revenues are drawn from a far broader base than the payroll tax. As the population ages, the government can spread the burden and raise taxes that produce the least adverse effects.

Canada’s third distinguishing characteristic is its use of the social insurance trust fund to introduce equity investments into its social security program. Britain prefunded social insurance obligations with equities by encouraging employers and workers to “contract out” of SERPS (the British analog to the C/QPP), using employer plans or individual account private pensions. Australia never created an earnings-based social insurance program but mandated an individual account system to prefund, with equities, a similar earnings-related retirement income stream.

From a purely financial perspective, the Canadian trust fund approach seems best. It captures the substantial economies of scale in investment management better than employer defined-benefit plans, let alone individual worker accounts. The trust fund is in an especially good position to pool and manage the risks in equities, as it can smooth volatility over an infinite horizon. Unlike employer plans, the trust fund approach involves no additional administrative expense to maintain individual accounts or employee defined-benefit accruals. It avoids the significant marketing costs seen in employer individual account programs. Finally, it avoids the costly process of enforcing and comply-
ing with government regulations needed to distribute and secure tax-favored employee plan benefits while minimizing the revenue loss to the Treasury.

The primary objection to the trust fund approach is political. Critics in the United States generally contend that it is impossible to build up a social insurance trust fund, let alone have it invest in equities, without succumbing to one of the pitfalls cited by Palacios (2002). They claim that the U.S. Social Security trust fund has functioned as a “captive source of credit”—that the fund’s build up of government bonds merely funded increased government expenditures, without raising national saving. Critics view the prospect of trust fund investment in equities with an even more jaundiced eye. The great fear is that the government would use the trust fund as an instrument for advancing public policy or the policy of the politicians who happen to be in power.

The Canadian experience provides an example of a governance structure that responds to many of these objections. The 1997 reform gave the investment board substantial independence and a clear financial objective—to minimize the long-term level contribution rate. It also provided reporting mechanisms to help maintain accountability. Most observers agree that the investment board has thus far managed trust fund assets in an independent, professional, and accountable fashion. Overseeing the management of the CPPIB has not only been far less costly than overseeing the operation of employer plans or employee individual accounts, it has also been far more effective.

Canada’s ability to invest trust fund assets in equities allowed it to maintain C/QPP benefits with a level contribution rate lower than it otherwise could. This is extremely important given the rapid rise in the cost of other public programs for the elderly over the next quarter century.

The trust fund approach has also allowed Canada to prefund retirement income benefits within the traditional defined-benefit structure. Equity-funded defined benefits are far more predictable than the individual account systems used in the United Kingdom or Australia. As employers shift to defined-contribution arrangements, the predictability of public benefits provides a secure retirement income floor, helping workers plan their retirement and allowing them to take more risk in their supplemental plans. For all these reasons, the Canadian system deserves careful attention.
Notes

1. In addition to the exemption of pension contributions and investment earnings, Canada also exempted the first $1,000 in annual pension benefits. Individuals age 65 and older were also entitled to an additional “age exemption” that further sheltered pension income (Béland and Myles 2005; Coward 1995).

2. Like the U.S. Social Security program, the C/QPP program was “rushed to maturity.” While introduced in 1966, workers who had consistently contributed to the program could retire on a full C/QPP pension, at age 65, from 1976 onward.

3. Unlike the UK Pension Credit, the Australian Age Pension, and Canada’s 1927 Old Age Pension program, the new Guaranteed Income Supplement was income-tested rather than means-tested—only income, rather than income and assets, was considered in calculating eligibility and benefit levels.

4. The most common requirements were full vesting at age 45 with 15 years of service (subsequently tightened to full vesting after 2 years of plan participation or 5 years of service); contributions that covered the cost of currently earned benefits and the amortization of any unfunded liability; and the management of pension fund assets solely in the interest of the plan beneficiaries, without regard to the interests of the sponsor. To protect surviving spouses (essentially widows), most provinces made the joint-and-survivor annuity the default payout, with the survivor getting 60 percent of the worker’s initial benefit (Coward 1995).

5. The Canadian poverty line is now significantly higher than the benchmark used in the United States. In 1994, the Canadian poverty line for a family of four in a medium-sized city was $C26,650—40 percent higher than the U.S. poverty line of $C19,024 (converted to Canadian dollars on a purchasing parity basis). Thus, the Canadian poverty rate would now be significantly lower if measured using the U.S. benchmark (Battle 2003; Fisher 1995; Myles 2000; Osberg 2001; Phipps and Curtis 2000–2002).

6. As discussed above, both the continuing and termination valuations compare plan assets to plan liabilities, with the liabilities defined as the present value of future pension obligations. The future pension obligations in a continuing valuation are based on projected earnings when workers retire or separate from the firm and are discounted to the present using the expected return on plan assets. The future pension obligations in a termination valuation are based on current earnings and are discounted to the present using the interest rate on low-risk bonds.

These funding rules were more critical in Canada than in the United States. In the United States, accrued pension benefits are not just backed by the assets in the pension fund, but by a legal claim on the net worth of the sponsor and, up to specified limits, by the federal PBGC. In Canada, accrued pension benefits are not backed by a claim against the sponsor. Only Ontario has a pension benefit insurance program, and the level of protection is modest (Coward 1995).

7. The Canadian excess surplus rule prevented sponsors from making contributions once the value of pension fund assets exceeded 110 percent of plan liabilities. As
elsewhere, this was designed to maintain government revenues during a period of large budget deficits.

8. In 1999, the last year for which data on 5,500 U.S. employer plans are available, single-employer defined-benefit plans paid out $91 billion in benefits and held $1.65 trillion in assets. If U.S. plans were 30 percent overfunded in 1999, as was the case in the analysis of plans sponsored by 100 very large firms conducted by the pension consultant Milliman, $1.27 trillion was the “fully funded” level of assets. If 60 percent of those assets were invested in stocks with a real rate of return of 6.5 percent (the long-term U.S. rate), and 40 percent in bonds yielding a real 2.25 percent, the long-term U.S. rate, investment income would be $61 billion, or 67 percent of benefit payments (Milliman 2005; U.S. Department of Labor 2004, Tables C5, C10).

9. Recognizing the burden placed on the firm by the 1987 funding rules, Parliament enacted the Air Canada Pension Plan Solvency Deficiency Funding Regulations in August 2004, a statute that allowed Air Canada—and Air Canada alone—to pay down its termination deficit over a 10-year period (Canadian Department of Justice 2004; Watson Wyatt 2003).

10. The benefit cuts primarily targeted the well-to-do, primarily through reductions in tax reliefs for the elderly and a limited clawback, or income-tested reduction, of Old Age Security benefits. For details see Myles (2000) and Battle (2003).

11. A cut in CPP benefits would also increase the obligations on employer plans, as most were integrated with the CPP—they essentially targeted a combined public-private benefit and reduced employer pensions by a portion of the government allowance (Coward 1995).

12. CPP benefits were also reduced by a change in the indexing formula. The benefit calculation now indexed past wages to the present, with the “present” defined as average wages over the five years prior to retirement, rather than three. As a result, benefits are now sometimes estimated at 24 rather than 25 percent of indexed earnings. The reform also reduced future outlays by tightening access to CPP disability benefits. In addition to raising the contribution rate, the 1997 reform increased revenues by freezing the “exempt amount” of earnings not subject to tax. This exempt amount, which had been pegged at earnings up to 10 percent of average earnings, was now frozen at $C3,500.

13. A proper analysis of the choice between equities and bonds in a social insurance program would not focus narrowly on the experience of the CPP and QPP from the mid-1960s through the mid-1990s, but the political process rarely makes decisions based on proper analysis. Within the investment community, which is sophisticated about such issues and tends to be suspicious about government, the recognition that the QPP had essentially abandoned social investment and was professionally managed did reduce anxiety over the use of equities in the CPP (communication from John Myles).

14. The automatic stabilizer is actually seen more as a lever forcing future governments to take some sort of action that restores solvency rather than the “proper” set of trade-offs to restore CPP solvency in all situations.

15. The government could respond to a prolonged market downturn by shifting funds from general revenues. The CPP could repay this advance, and rebuild the trust fund, when returns bounced back over the long-run expected rate.