Article from:
Pension Section News

June 2004 - Issue No. 55

# Funding Underthe Canada Pension Plan 

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#### Abstract

This article is based on a presentation made to the Actuarial Society of Greater New York on June 16th, 2003, and updated with material released by the Canada Pension Plan Investment Board subsequently.


The Canada Pension Plan (CPP), the earn-ings-related contributory component of Canada's social security retirement program has always differed from that in the United States in several ways. Its funding method had been much closer to pay-go than that for OASDI, with a target of a buffer fund of two years' benefits. Contributions had been increasing for many years, and the actuarial reports, which projected results until 2100, had always indicated there would be future increases in contributions. The investments had largely been in non-marketable provincial government bonds, unlike OASDI where the trust fund investments were in non-marketable federal bonds. Changes in the investment policy made in 1998 have introduced further differences in the funding and investment policies.


## Changes in the CPP in 1998

What is being described is the funding under the Canada Pension Plan (CPP). I am not describing that under the Québec Pension Plan (QPP), which is separate from but similar to the CPP. The QPP has always invested in equities; neither I am discussing funding under the Old Age Security plan, or the Guaranteed Income Supplement and Spouses' Pension Allowance. These plans are funded on a pay-go basis and are income-tested, the first at a rather high level.

At January 1, 1998 there were a number of benefit changes, mostly slight reductions, to both the CPP and QPP. I described these in articles in Pension News in 1997 and will not repeat a description here. The contribution rates under both the CPP and QPP were scheduled to increase more rapidly than had been planned; the rate had been 6.0 percent (combined employer and employee) in 1997. It was now to reach a maximum of 9.9 percent in 2003, and remain level thereafter. The buffer fund target was to increase from two to five years of anticipated benefits. In addition there were to be changes in the investment policy for the CPP.

Formerly the fund had been mostly invested in nonmarketable provincial government bonds earning the same rate as a federal bond of the same duration, a somewhat subsidized rate. This contrasts with the investments under OASDI in the USA, which are all in federal bonds. The fund was now to be invested in a manner similar to that for private pension funds, and managed at arm's length from the government. There was to be the same foreign content rule as for private plans, which is currently 30 percent of the book value. Domestic equity investments were to be selected passively, mirroring broad market indices. The aim was to be a real rate of return of 3.8 percent per annum.

The Chief Actuary for the CPP indicated that the contribution rate should be stable at 9.9 percent and would not have to increase beyond this level as contributions and investment income from the buffer fund should be enough to pay benefits; projections for the CPP are made to the year 2100. His actuarial report was reviewed by three well-known actuaries, chosen from a short list prepared by the

Canadian Institute of Actuaries. They endorsed the Chief Actuary's overall conclusion; subsequent actuarial reports have been similarly reviewed and endorsed.

There was little or no objection from either the public or the media to the benefit changes or the increase in contributions. There had been much expressed concern that that the CPP was not sustainable in its present form, and contributions had been increasing annually for many years. In fact all actuarial reports on the CPP had forecast contribution increases. There were also no objections form the provinces to the change in the investment policy as in recent years virtually all contributions had been needed to pay benefits and there had been little available for investment in provincial bonds.

## Creation of the Canada Pension Plan Investment Board

An Act of Parliament established the Canada Pension Plan Investment Board as a federal crown corporation in December 1997. Its mandate is to invest in the best interests of CPP contributors and beneficiaries and to maximize long-term investment returns without undue risk of loss, taking into account the factors that may affect the funding of the CPP and its ability to meet its financial obligations. The CPPIB is independent of the CPP and is at arm's length from both the federal and provincial governments. The Act, the by-laws of the CPPIB and its governance regulations can only be altered with the support of the federal government and two-thirds of the participating provinces, which are all provinces except Québec, representing twothirds of the Canadian population.

The role of the government is:

- To appoint directors.
- To review legislation and regulations every three years as part of its overall review of the CPP.
- To initiate a special examination of financial and management controls, information systems, and management practices at least every six years.

Quarterly financial statements and the annual reports are sent to all finance ministers, and the annual report is tabled in the House of Commons each year. Directors of the CPPIB were appointed in October 1998 and held their first meeting the following month. They began receiving funds for investment
in March 1999. These were invested in stock index funds. The management team was put in place during 2000 and 2001, and in 2001 they entered the private equity market.

Although the mandate originally was to invest in a passive manner, and initially the portfolio of Canadian equities mirrored the Toronto Stock Exchange (TSE) index, the CPPIB reached the conclusion that Nortel was too great a part of the portfolio; as a result they reduced their holding of Nortel. They still sustained substantial investment losses when Nortel crashed, but not as great as if they had continued to mirror the TSE index.

Proxy voting guidelines were established.
Consideration was given to social or ethical investments. As a result a Social Investment Policy was established that considers as eligible investments:

- Securities of issuers engaged in a business that is lawful in Canada.
- Securities of issuers in any country with which Canada maintains normal financial, trade and investment relations.

Investments will not be accepted nor rejected on non-investment criteria.

The aim of the CPPIB is to be small and cost effective. The team is to be experienced, and there are expected to be fewer than forty employees. Senior executives develop investment and operating strategies, and then access and leverage external expertise. Investment and administrative expenses for the year ending March 31, 2002 were nine basis points, or $\$ .09$ per $\$ 100$ of invested assets. The public is kept informed by public meetings every two years in each participating province. Information and important development are posted on the CPPIB's Web site, which contains much information, and covered in news releases. The Web site is www.cppib.ca.

The CPPIB expects to be managing $\$ 150$ billion by 2013. (All figures in this article are in Canadian dollars.) Maximizing returns means assuming risk to earn higher returns. The fund must be fairly compensated for risks taken.

## Investment Policy of the CPPIB

Historically CPP funds were lent to the provinces (and the federal government if the provinces did not want them) in the form of non-marketable twentyyear bonds. Since 1997 each province has the option
to roll over maturing bonds for a further twenty years at the then current market rate. Bonds not rolled over are transferred to the CPPIB if the proceeds are not needed to pay current benefits. By 2033 all such bonds will have matured.

The decision was made to invest in equities as historically they had produced superior returns compared with most other asset classes. (Gold and Bader are now challenging whether equities are a suitable investment for defined benefit plans, but I do not propose to go into this.) The target asset mix was set as follows:

- 85 percent in public equity markets
- 10 percent in private equity
- 5 percent real estate and infrastructure projects.

Public equity markets include:

- Derivatives such as options, futures, forwards, and swaps
- Treasury bills and other money market instruments
- Exchange traded funds
- Bonds, both nominal and real return.

Private equity includes:

- Start-up and early stage companies
- Established companies entering a new growth phase or requiring a new business plan or a change in management to achieve superior performance
- Energy and natural resources: electric power generation and distribution projects, mineral ore deposits, timberlands and oil and gas properties.

Real estate and infrastructure projects include:

- Office, industrial, retail and residential properties and development projects, including land
- Bridges, highways, tunnels and ferries
- Fibre-optic cable, telecommunications towers and satellites
- Schools and hospitals.

The target mix by geographical area is:

- 70 percent Canada
- 15 percent United States
- 15 percent non North America.


## CPP Assets

The fiscal year end for the CPP is March 31. Results for the year ending March 31, 2004 are scheduled to be released on May 19, 2004. At December 31, 2003 , the CPPIB held the following assests in millions of Candian dollars:

| Category | Amount |
| :--- | ---: |
| Public Equities (24.0 percent non-Canadian) | $\$ 28,450$ |
| Private Equities | $\$ 1,690$ |
| Real Return Assets | $\$ 69$ |
| Money Market Securities | $\$ 235$ |
| Total | $\$ 30,945$ |

As of the same date, the federal Department of Finance held the following assets, which essentially were investments from the days before the establishment of the CPPIB, again in millions of Canadian dollars:

| Category | Amount |
| :--- | ---: |
| Federal Government Bonds | $\$ 4,108$ |
| Provincial Government Bonds <br> (46.0 percent from Ontario) | $\$ 25,685$ |
| Cash | $\$ 5,543$ |
| Total | $\$ 35,336$ |

Thus the total assets for the CPP were $\$ 66,281$ million, i.e somewhat over $\$ 66$ billion. Details of the assets are available are on the Web site. The CPPIB has been investing exclusively in equities because of the large bond portfolio already held by the Department of Finance. At some time in the future we can expect the CPPBI to start investing in fixed income securities.

## CPP Investment Targets and Returns

The CPPIB set as a target for the return on equities to be that on real-return bonds, which are available in Canada, plus a premium of 1.6 percent to compensate for risk. At the end of 2002 real-return bonds yielded 3.7 percent so the target long-term rate of return on equities was then 5.3 percent per annum. The most recent actuarial report on the CPP, which was that as of December 31, 2000, assumed that the equity portfolio would earn a 4.65 percent real rate of return, assuming 4.5 percent on Canadian equities and 5.0 percent on foreign equities, with a 30 percent investment in foreign equities.

The composite benchmark for the CPP fund aggregates three market indices weighted by the allocation to equities:

- S\&P/TSE Composite Index, which represents almost 90 percent of Canadian based companies
- S\&P 500 Index for large U.S. companies
- MSCI EAFE Index for large companies in Europe, Australasia and the Far East.

Private equities are expected to earn 300 basis points more than these market indices.

Table 1 compares the portfolio return on equities and real estate with the benchmark return for the 12 months ending March 31, the year-end for the CPPIB. Figures in parentheses are negative.

For the nine months ending in December 2003 the portfolio return was 26.0 percent compared with a benchmark return of 28.6 percent. The return on the portfolio has exceeded the benchmark return in all years except that ending in March 31st, 2003, and in the first nine months of the current year.

Table 2 gives the return on fixed income securities and on the consolidated assets, again for years ending on March 31. Again figures in parentheses are negative.

For the nine-month period ending December 2003, the return on the fixed income securities has been 6.1 percent while that on the consolidated assets was 13.9 percent.

The return on the consolidated assets has been affected as the percentage held by the Department of Finance, invested in bonds and cash, has reduced from 86.0 percent in 2001 to 53.4 percent in 2003 as the amount invested in equities by the CPPIB has increased. The return on consolidated assets has exceeded that assumed in the actuarial report except in the year ending in 2003.

At March 31, 2003 there had been accumulated losses of the order of $\$ 4.2$ billion, but they had switched to a gain of 5.8 billion by December 31, 2003 because of good returns on equities in the nine months. It is too soon to say whether the losses incurred will impair the financial health of the CPP, resulting in contributions in excess of 9.9 percent. There has been remarkably little concern expressed in the media about them, although they have been reported. The media seems to be concentrating on funding shortfalls in private pension plans. It will be interesting to see whether there will be a turn against equity investments in the CPP, and whether social security in the United States will follow the Canadian lead.

Table 1

| Year | Portfolio Return | Bookmark Return |
| :---: | :---: | :---: |
| 1999 | $5.0 \%$ | $4.7 \%$ |
| 2000 | $40.1 \%$ | $39.3 \%$ |
| 2001 | $(9.4 \%)$ | $(17.8 \%)$ |
| 2002 | $3.4 \%$ | $2.4 \%$ |
| 2003 | $(21.1 \%)$ | $(20.3 \%)$ |

Table 2

| Year | Fixed Income | Consolidated Assets |
| :---: | :---: | :---: |
| 2001 | $9.9 \%$ | $7.0 \%$ |
| 2002 | $5.0 \%$ | $5.7 \%$ |
| 2003 | $8.4 \%$ | $(1.5 \%)$ |

