Catalogue no. 11-010-X
ISSN 1705-0189

Canadian Economic Observer

What does the Pension Satellite Account tell about Canada's pension system?

by Philip Cross and Joe Wilkinson

Statistics Canada Statistique Canada

Canada

How to obtain more information

For information about this product or the wide range of services and data available from Statistics Canada, visit our website, www.statcan.gc.ca.

You can also contact us by

email at STATCAN.infostats-infostats.STATCAN@canada.ca

telephone, from Monday to Friday, 8:30 a.m. to 4:30 p.m., at the following numbers:

- Statistical Information Service 1-800-263-1136
- National telecommunications device for the hearing impaired 1-800-363-7629
- Fax line 1-514-283-9350

Depository Services Program

- Inquiries line 1-800-635-7943
- Fax line 1-800-565-7757

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, Statistics Canada has developed standards of service that its employees observe. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1-800-263-1136. The service standards are also published on www.statcan.gc.ca under "Contact us" > "Standards of service to the public."

Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued co-operation and goodwill.

Standard table symbols

The following symbols are used in Statistics Canada publications:

. not available for any reference period
.. not available for a specific reference period
... not applicable
0 true zero or a value rounded to zero
0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p} preliminary
^{r} revised
x suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E} use with caution
F too unreliable to be published
* significantly different from reference category ($p < 0.05$)

Published by authority of the Minister responsible for Statistics Canada

An HTML version is also available.

Cette publication est aussi disponible en français.

What does the Pension Satellite Account tell about Canada's pension system?

by Philip Cross [1] and Joe Wilkinson

Statistics Canada initiated the creation of a Pension Satellite Account [2] (PSA) to fully articulate the total wealth position of pensions at the beginning of each year (the stock); the inflows of contributions and income earned into these different plans; the outflow of withdrawals; and the revaluation of pension assets during the year to arrive at the wealth position at the end of each year. [3] The flows can be cumulated over time to calculate the contribution of each component to the change in the overall stock of pension assets. These data are provided separately for three major categories of retirement schemes: government social security plans, employer-sponsored pension plans, and individual retirement savings plans.

This paper looks at the recent growth and size of pension funds and how governments, employers and individuals have changed their pension investment behaviour in response to recent events such as higher contribution limits, the lifting of restrictions on the foreign content of some types of pension funds and the volatility of asset prices (notably the stock market) over the past decade. It then examines how pension assets fit into the overall balance sheet of households, and how that has influenced household investment, saving and spending.

Overview

At the end of 2008, there were $1.8 trillion in pension assets, down from $2.1 trillion in 2007 but nearly four times greater than the holdings of $0.5 trillion in 1990. The PSA gives a complete breakdown of the $1.6 trillion growth in pension assets between 1990 and 2007 (the stock of pension assets are available to 2008, and the flows to 2007). The $1.0 trillion earned in investment income from pension assets accounted for the bulk of the increase (Table 3.1). Contributions of $1.4 trillion narrowly exceeded the $1.3 trillion in withdrawals, for a net inflow of $0.1 trillion. There was a net gain of $0.5 trillion from the revaluation of asset values (which include capital gains and losses on asset values), before last year's financial losses.

Assets in employer-sponsored pension plans rose over three-fold from $302 billion in 1990 to $1,064 billion in 2008. Employer-sponsored plans relied on investment income for three-quarters of their growth and revaluations for the rest, as withdrawals exceeded contributions on balance between 1990 and 2007. Despite a doubling of contributions since 2002, employer-sponsored plans saw withdrawals still equal to contributions in 2007 and had the largest net excess of withdrawals over contributions between 1990 and 2007 (totalling $60 billion).

Individual registered savings plans (RSPs) grew from $157 billion in 1990 to $631 billion in 2008. Individual RSPs had the most diversified sources of growth, with higher net contributions, investment income and revaluations. They were the only major component of pensions where contributions exceeded withdrawals for the period 1990 through 2007, with a net inflow of $167 billion, accounting for about one-fourth of its

total asset growth. Investment income earned in individual RSP accounts contributed just under half (48% or $286 billion) of growth up to 2007, and revaluations the remaining 27% or $161 billion.

Social security assets nearly tripled from $55 billion in 1990 to $140 billion in 2008. The increase was dominated by investment income, which totalled $88 billion from 1990 to 2007. Revaluations added a further $30 billion, particularly after 2000 when the CPP changed its investment strategy. Withdrawals exceeded contributions on balance by $15 billion between 1990 and 2007. However, all of this outflow occurred in the 1990s. The net outflow of withdrawals from social security was sharply reversed after an increase in contribution rates late in the 1990s, and contributions exceeded withdrawals by nearly $10 billion in recent years. [4]

Looking at all pension accounts combined, the annual inflow of contributions increased from $36 billion in 1990 to $133 billion in 2007. Annual contributions rose the most for employer-sponsored plans and social security between 1990 and 2007. However, withdrawals (excluding Old Age Security payments) grew almost in lock-step with contributions, accelerating from $33 billion a year in 1990 to $120 billion in 2007, rising the most for employer-sponsored plans. As well, investment income rose on overall pension investments in every year up to 2008, averaging $57.7 billion a year, despite fluctuations in the yield of some financial assets (such as the drop in interest rates in the 1990s as inflation slowed). Annual investment income rose the most for employer-sponsored plans, while they fell for social security (from $5.6 billion in 1990 to $5.4 billion in 2007, mostly due to declines in the 1990s). Revaluations were the most volatile component of asset growth from 1990 to 2007, rising $29 billion a year on average before the sharp drop during last year's financial turmoil.

While social security is the smallest part of Canada's pension system with $140 billion of assets in 2008, it affects the most people. At the end of 2006, 12.3 million people made CPP or QPP contributions, 6.3 million contributed to RRSPs and 5.7 million had a registered pension plan from their job. [5] Assets held in employer-based pensions and individual RSPs rose sharply over the past two decades to $1.1 trillion and $0.6 trillion respectively in 2008, driven by higher contributions and revaluations (Figure 3.2). [6] Of total pension assets at the end of 2008, social security comprised 7.6%, employer-sponsored plans 58.0% and individual savings plans 34.4%.

Social Security

Social security programs are provided by governments to ensure a basic level of security to retirees. They comprise two main programs: the Canada/Quebec Pension Plans that cover all workers, and Old Age Security that covers all Canadians. However, their funding is quite different.

The Canada Pension Plan (CPP) and Quebec Pension Plan (QPP) are government-sponsored pension plans related to having a job and comprise the largest component of social security in Canada, with Canadians receiving payments of $35.7 billion (versus $32.2 billion from OAS in 2007). Employers and employees contribute equally to these plans, for a total of $43.5 billion in 2007. The CPP and QPP are defined benefit plans in nature; however, employers do not bear risks related to the availability of funds from withdrawals under these plans. These government-established plans are intended to provide workers and their families with limited retirement earnings (as well as some protection against disability and death). It is noteworthy that assets held by these plans are allocated in the Canadian National Accounts to the government sector, and withdrawals represent income transferred to persons.

Old Age Security [7] is the second component of social security programs in Canada. It is a transfer payment from government revenues.

The size of social security pension assets has fallen relative to assets held in employer-based and individual pension plans (Figure 3.2), reflecting the rapid growth in employer-sponsored and individual plans. But in absolute terms there was a sharp increase in social security pension assets in the past decade after almost no growth in the 1990s (Figure 3.3). This was due to a hike in CPP and QPP contribution rates starting

in 1997 to head off a looming shortfall in what until then had been a pay as you go program (pay as you go implies benefits to retirees were financed largely by contributions from younger cohorts). As well, the CPP was no longer restricted to just investing in government bonds, which boosted its rate of return on average over the past decade. [8]

The overhaul of the Canada and Quebec Pension Plans starting in 1997 reversed a long-term decline in their assets and investment income. [9] Between 1991 and 1999, investment income earned by these pension plans fell by 19%, reflecting both an erosion of their asset base as withdrawals exceeded contributions and a lower rate of return on bonds (partly reflecting a lower inflation premium in interest rates; for example, the yield on long-term Canada bonds fell from 10.9% in 1990 to below 6% by the late 1990s).

By 2001, contributions to the CPP and QPP exceeded withdrawals, reflecting the phase-in of higher contribution rates (Figure 3.4). Investment income also rose steadily after 2001. With contribution rates doubling and investment income increasing, the overall assets in social security nearly tripled in the past decade from $55 billion in 1990 to $140 billion in 2008. According to the Chief Actuary of Canada, [10] this expansion in assets held by the CPP put it on a more secure footing: at its current contribution rate, it is sustainable for the next 75 years.

The CPP and QPP have had different asset and investment income profiles over time. From 1990 to 2001, investment income fell 25% for the CPP and 35% in the QPP. The CPP's income then grew by 23% until 2007. The QPP's income rose by 72% between 2001 and 2007. Before 1999, the CPP had virtually no revaluation of its assets, reflecting its restriction to investing only in government bonds. Since 2000, the CPP has come to resemble more the QPP, which always has invested in other assets. Still, the CPP has a lower variability in the value of its investment assets, highlighted by a decline in 2008 of 7.6% versus a 20.8% drop for the QPP.

Despite the widely-publicized changes to social security in the past decade, it is noteworthy that both the largest and the fastest growing parts of pension assets (both in the 1990s and after 2000) were employer-sponsored and individual pension plans.

Employer-sponsored pension funds

Employer-sponsored pension fund assets totalled $1.1 trillion in 2008, making them the largest part of Canada's pension system and seven times the amount of assets in social security plans. Employer-sponsored plans are established by either employers or unions to provide retirement income to employees. These plans are registered with government tax departments and regulatory authorities. All contributions by employees are income tax deductible. The tax is payable only when pension benefits are received.

As of 2008, 5.9 million Canadians were members in more than 19,000 registered pension plans. [11] Their assets are dominated (77%) by trusteed pension plans, both public and private. Membership was slightly larger in the private than the public sector, although assets in public sector plans were twice as large as the private sector. [12] Pension plans also can be administered through insurance company contracts, which operate in much the same manner as trusteed pension plans (small companies often purchase these contracts as the pay-out mechanism for their trusteed pension plan, leaving the administration to insurance companies). Other parts of employer-sponsored plans include government consolidated revenue agreements [13] (which are unfunded pension liabilities governments owe to its workers) and deferred profit sharing plans (Table 3.2). Most of the following analysis focuses on trusteed pension plans (TPPs).

The fastest growing segment of trusteed pension plans has been in the public sector. In 1990, public sector plans had assets of $111.1 billion, versus $88.3 billion in the private sector. By 2008, public sector assets had increased five-fold to $555.7 billion, over twice the size of the $248.7 billion in trusteed private sector plans.

There are a number of reasons why public sector pension plans have grown faster than private sector plans. Contributions in the public sector totalled $203.7 billion from 1990 to 2007, $68 billion (or 49%) more than in the private sector. Some of this rapid growth reflected the creation of funds to finance pensions for public servants, which reduced the unfunded liability of governments. Conversely, the privatization of some public companies led to the reallocation of some public sector pension assets to the private sector. Meanwhile, withdrawals from public sector plans rose only $37.2 billion more than in private plans, leaving net contributions to public plans $31 billion more than in the private sector from 1990 to 2007. Investments by public sector funds yielded $261.2 billion in income from 1990 to 2007, nearly double the private sector's $134.9 billion (partly reflecting that assets in the public sector were nearly twice as large). Finally, revaluations in the public sector added $277 billion, more than twice the $125 billion in the private sector.

One notable feature of both public and private sector trusteed pension plans is that withdrawals often exceed contributions. Contributions to public sector pension plans fell between 1993 and 2000, in line with lower employment in governments. As well, contributions fell because of contribution holidays when funds were deemed to have more assets than required to meet future pay-outs during the stock market boom late in the 1990s. Contributions nearly tripled between 2002 and 2007, partly because of more employees as well as governments topping-up under-funded plans. The growth of withdrawals from public sector pension funds slowed slightly after the 1990s, partly as incentives for early retirement offered during government downsizing were withdrawn. Since 2005, contributions have exceeded withdrawals (Figure 3.5).

The growth of private sector trusteed pension plan assets decelerated markedly in the past decade. After more than doubling from $88.3 billion in assets in 1990 to $196.8 billion in 1999, growth slowed to 26% in the period ending in 2008, when assets totalled $248.7 billion.

The slowdown in asset growth in private sector pension plans in the past decade reflects the negative impact of revaluations on private pension plan assets since 1999 (revaluations include capital gains and losses [14]). In the 1990s, these revaluations added an average of 5.5% a year to these assets (matching growth in public sector plans). Growth in the 2000s slowed to an average of 2.2% a year even before the drop in stock market prices in 2008 (while growth in the public sector growth was 3.8% from 2000 to 2007). Revaluations during the stock market crash in 2001 and 2002 erased $26.5 billion from private sector pension assets, which is when the gap between public and private sector assets began to widen rapidly, doubling to its current level of 124%. As well, revaluations in private sector funds fell $6 billion in 2007 even as public sector plans and individuals RSPs sustained growth. A drop in revaluations due to financial market losses in 2008 implies slower growth when this data becomes available (Figure 3.6).

Private sector pension funds rely more on revaluations to maintain asset growth than most other types of pension funds. This component also shows the most variability in the value of their assets (the standard deviation of revaluations as a percent of assets was the largest of all the different types of pension funds).

The other flows did not contribute to the slowdown in private pension assets in the 2000s. Withdrawals were stable at an average annual rate of 9% in the 1990s and 10% so far in the 2000s (despite a spike after 2006, which coincided with a surge in the number of people turning 60, the average retirement age) [15] . And investment income and contributions both accelerated after 1999.

Contributions have increased sharply in recent years as private pensions strived to remain fully funded (Figure 3.7). Contributions rose from between $5 and $6 billion a year through most of the 1990s to $11 billion in 2003, partly to make up for the stock market's drop in 2001 and 2002 which helped shave nearly $26.5 billion off the assets of private pension plans. Since 2003, contributions have risen steadily, to $15 billion a year in 2006 and 2007. Despite the recent increase in contributions to private plans, they remained less than withdrawals ($14.1 billion versus $19.0 billion in 2007).

Firms are shifting away from conventional pension plans. One change is from defined benefit (DB) to defined contribution (DC). A defined benefit plan specifies a level of retirement benefits paid out of fund contributions or assets. Large defined benefit plans fall under legislation requiring that the fund be managed by an independent trustee and that actuarial evaluations are done regularly. If the pension is sponsored by the employer, actuarial surpluses are generally run down by contribution holidays for the employer, while deficits are made up by large lump sum contributions to the plan. Contributions in a defined contribution plan are paid into an individual account for each member, which are then invested and benefits are paid depending on how the investment fund performs. One type of the latter is group registered retirement savings plans (RRSPs), which are allocated in the pension satellite account to individual RSPs. A group RRSP is simply a collection of individual accounts set up through an employer that leaves workers to decide whether to participate and, if so, how much to contribute. So some of the recent growth of individual RSPs represents a shift in DC plans that used to be allocated to employer-sponsored plans to group RRSPs allocated to individual RSPs.

Defined benefit plans hold a significantly larger share of the assets of Canadian employer- sponsored plans than their share of employees who are members of all pension plans in Canada, partly because DB plans were dominant for years and hence have had longer to accumulate assets than DC plans. Conversely, defined contribution plans hold a smaller share of the assets of Canadian employer-sponsored plans relative to their share of employees who participate in Canadian pension plans.

Individual registered savings plans

Individual registered savings plan (RSPs) contributions are voluntary and tax-sheltered until withdrawal. Assets in these plans (especially RRSPs) have grown significantly, starting in 1991 when higher contribution limits led to a doubling of contributions between 1990 and 1995. Contributions rose in the 2000s, but not as fast as withdrawals, a reversal from the 1990s. Most of the increase in individual RSP assets this decade came from the revaluation of assets, especially during the stock market boom from 2003 to 2007 which added over $50 billion a year to these pension assets. Investment income also grew by 72% after 1999.

Canadians increased individual contributions in response to their approaching retirement from $27 billion in 2002 to $34 billion in 2007. However, contributions to individual RSPs did not accelerate as much over the past decade as social security or employer-sponsored pension plans. Contributions to individual RSPs rose 20% between 1999 and 2007, while they more than doubled for social security and employer-sponsored plans. This slower growth occurred despite a large increase in allowable contributions phased-in after 2002 (although unused contribution space for RRSPs can be carried forward indefinitely, reducing the urgency to contribute).

This increase in contribution limits (and the lifting of foreign investment restrictions in 2005) did not provoke the same surge in contributions seen after 1991. Contributions doubled in the 1990s but since then growth slowed to 20%. Looking at contributions to individual RSPs as a share of disposable income shows a rise from 2.5% in 1990 to 5.1% in 1996 and then a slow decline to 3.8% in 2007. This slowdown occurred despite the aging of the population over the last two decades. Some of the smaller response of contributions may reflect the large gains in revaluations as the stock market surged between 2003 and 2007. Looking at net contributions and revaluations together shows an acceleration between the 1990s and the 2000s, suggesting households did not feel the need to contribute to plans that were growing rapidly anyway because of capital gains.

Contributions to individual RSPs have consistently exceeded withdrawals (Figure 3.8). However, the gap between the two has narrowed, as withdrawals rose by 80% since 1999 versus the 20% gain in contributions. Instead, the rapid growth of assets from 2002 to 2007 has been sustained by large capital gains, averaging $52.6 billion a year in the four years before markets turned down in 2008 (the exact impact on RRSP assets values will not be available until next year's update).

Since 1999, pension assets in individual RSPs have grown faster than private sector pension plans (6.5% versus 3.4% a year thru 2008). The faster growth of investments in individual retirement savings plans relative to private sector trusteed pension plans after 2000 also may reflect Canadians responding to the slowdown in assets held by employer-sponsored pension funds (as noted, the growth of group RRSPs reinforces this result). This is consistent with a study that finds that retirees who do not benefit from

registered pension plans on average appear to find alternatives to produce the same level of income, including working later in life and generating more rental, interest and dividend income. [16]

Where do TPPs invest?

Trusteed pension plans (both in the public and private sectors) shifted to foreign investments after restrictions were lifted in 2002. In the five years before 2002, foreign investments held by TPPs rose 51% (Figure 3.9). In the next five years they rose 93%. The increase was dampened by the appreciation of the exchange rate, which lowered the Canadian dollar value of foreign investments. These investments fell 19% in value in 2008.

Domestically, TPP assets shifted from bonds to stocks. Between 1997 and 2002, pension assets held in stocks rose 6% (including declines in 2001 and 2002) while bonds grew by 12%. In the next five years, stocks expanded by 51% and bonds by 31%. Pension assets held in stocks fell 39% in 2008, reflecting both lower prices and a reallocation from stocks to other assets, while bonds fell only 1.6%.

The impact of pension assets on balance sheets and savings

The large changes since 1990 in pension assets held by households led to several notable changes in household balance sheets. Before 1990, households were content to invest mostly in conventional deposits and bonds. Since then, their focus has shifted to pension and stock funds (Figure 3.10). In fact, the growth of these assets also outstripped housing assets since 1990 (although the level of assets in real estate remains slightly higher than household pension assets). The share of household pension funds in total financial assets rose from 25% in 1980 to 33% in 1990 and 36% in 2007. The increase was led by trusteed pension plans (both public and private) and individual RSPs.

Led by pension assets, total household financial assets have more than tripled from $1.2 trillion in 1990 to just over $4.0 trillion in 2007. Household holdings of financial assets remained slightly larger than investment in non-financial assets, notably housing. While the housing market has surged in recent years, this follows several years of sluggish conditions in the mid-1990s. Overall, households had $6.9 trillion in total assets (financial and non-financial) at the end of 2008, with 39.4% in housing and 24.5% in pension assets (excluding social security).

Increased withdrawals from pension plans help explain the trend to a lower personal savings rate in recent years. Already, personal saving excluding pension plan saving has been negative for the last two decades, declining steadily to almost a $200 billion drop in 2006 and 2007 (Figure 3.11). Negative savings would imply that households are increasing their liabilities (such as mortgage debt) at a faster rate than their assets. Since 2000, Canadian households have increased their financial liabilities faster than their assets, suggesting some of this increased debt or lower accumulation of financial assets has been used to finance spending.

The shift in the composition of household wealth to real estate and pension assets was encouraged by the tax-deferred or exempt status of many of these investments. The primary residence of households is tax exempt when sold, implying that most homes (the largest part of household assets) are sheltered from taxes. Meanwhile, since the early 1990s savings in pension plans more than accounted for all personal savings, and most do not pay tax until withdrawal. This shift in savings to money held in pension plans may reflect a rational response to tax incentives. It also reflects the steady aging of the population: since consumption by retirees is counted in personal expenditure, but it is financed by running down pension assets rather than current income, the aging of the population inevitably leads to a lower or even negative

saving rate. Income taxes also will rise more than personal income would imply as withdrawals from tax-exempt pension assets increase.

Conclusion

There have been several notable shifts since 1990 in the structure of pension assets in Canada. Assets have nearly quadrupled, mostly due to higher investment income. Contributions rose steadily from 1990 to 2007, but barely kept up with the increase in withdrawals as the population aged rapidly. Revaluations accounted for about one-third of overall asset growth up to 2007.

Social security has shown the fastest growth after its reform in the late 1990s, although it remains the smallest part of total pension assets. Trusteed pension plans were still the largest segment of pensions, sustained by rapid growth in the public sector. Private sector pension plans have posted the smallest growth in assets since 1999, despite increasing contributions, as withdrawals kept pace with contributions and gains from revaluations slowed. Individual RSPs have not made up for this slower growth in the private sector, even before taking into account the large losses from the global financial turmoil in 2008, as contributions to these plans slowed from their rapid gains in the 1990s.

Households appear to take a macro view of their pension system. When contributions rise sharply in one area, such as the CPP and QPP late in the 1990s, they slow elsewhere. And when pension assets are growing rapidly due to capital gains, contributions slowed. These changes in the portfolio of pension flows and assets are summarized succinctly in the Pension Satellite Account.

Notes

1. Chief Economic Analyst (613-951-9162)
2. A satellite account is attached to the main National Accounts to show transactions in a specific part of the economy. Other satellite accounts in Canada have been created for tourism and nonprofit institutions.
3. The revaluation of the value of pension assets reflects capital gains and losses due to fluctuations in the price of financial assets as well as the impact of the exchange rate on the value of assets held outside of Canada.
4. Social security withdrawals in this paper exclude Old Age Security payments, which are not funded by pension assets.
5. In 2007, membership in RPPs rose to 5.9 million, according to Pension plans in Canada (The Daily, June 8, 2009).
6. Canada had a relatively high proportion of pension assets invested in stocks relative to bonds, and so was more affected by the drop in stock market prices in 2008 than most other countries. See p. 2 of "Pensions and the crisis", OECD, 2009.
7. The Old Age Security Act covers four distinct programs, the largest of which are the Old Age Security pension (introduced in 1952, it pays a flat benefit subject to clawback) and the Guaranteed Income Supplement (added in 1967 to increase incomes to the elderly poor).
8. The CPP was restricted to buying provincial government bonds until the creation of the CPP Investment Board in 1997. The Caisse de dépôt et de placement du Québec always has had fewer restrictions for the QPP. See Bruce Little, Fixing the Future, U of T Press, 2009, for a complete discussion of the overhaul.
9. The CPPs investment income was stable at $4.4 billion between 1990 and 1995 because it had been obliged to buy 20-year non-redeemable provincial government bonds (in proportion to provincial contributions to the CPP). With withdrawals exceeding contributions in the early 1990s, assets fell, and no new bond purchases were made, leaving the rate of return constant despite falling bond rates during this period.
10. This is based on studies by the Chief Actuary of Canada, 23rd Actuarial Report of the CPP as Dec 31, 2006, published by the Office of the Superintendent of Financial Institutions.
11. Pension plans in Canada, The Daily, June 8, 2009.
12. P.21, The wealth of Canadians: An Overview of the Results of the Survey of Financial Security, Catalogue no. 13F0026MIB.
13. Government consolidated revenue agreements are the unfunded pension liabilities of governments. These assets were little changed over time, as periods of increase when assets are being acquired to fund a particular pension liability were followed by a decline when these pensions are fully-funded (and transferred to employer-sponsored public pension funds, which explains why the latter shows several years of sudden gains due to contributions, such as in 2004 and 2007).
14. Revaluations also include administrative costs. Data for 2008 show that the administrative costs of private plans were equal to 0.118% of assets, versus 0.075% for public plans. From Table 280, Quarterly Estimates of Trusteed Pension Funds, STC Catalogue No. 74-001-XIB.
15. As recently as 1997, the population aged 60 to 64 years was declining. Since then growth accelerated from 2.2% in the two years ending in 1999 to 12.0% in 2006 and 2007.
16. More specifically, G. Schellenberg and Y. Ostrovsky found that "RPP members received more from pensions and superannuations than non-members, but less from interest, investments and dividends and from earnings." P. 9 in "Pension coverage, retirement status and replacement rates among a cohort of Canadian seniors," Statistics Canada Analytical Studies. Branch, forthcoming.

Chart 3.1
Pension account assets, cumulative change from 1990 to 2007

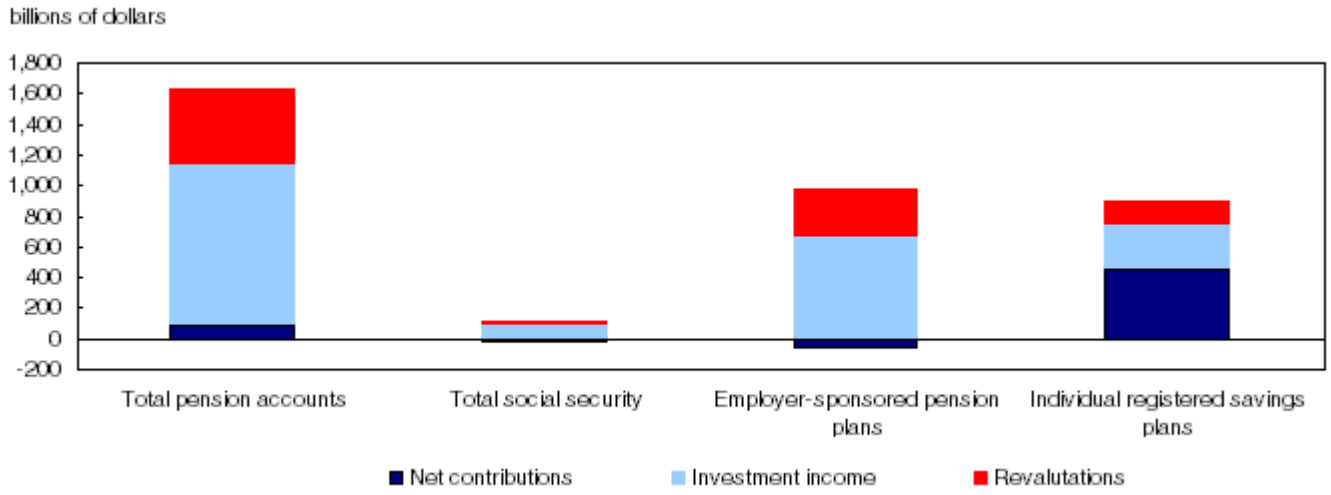


Chart 3.2
Assets of Canada's pension system

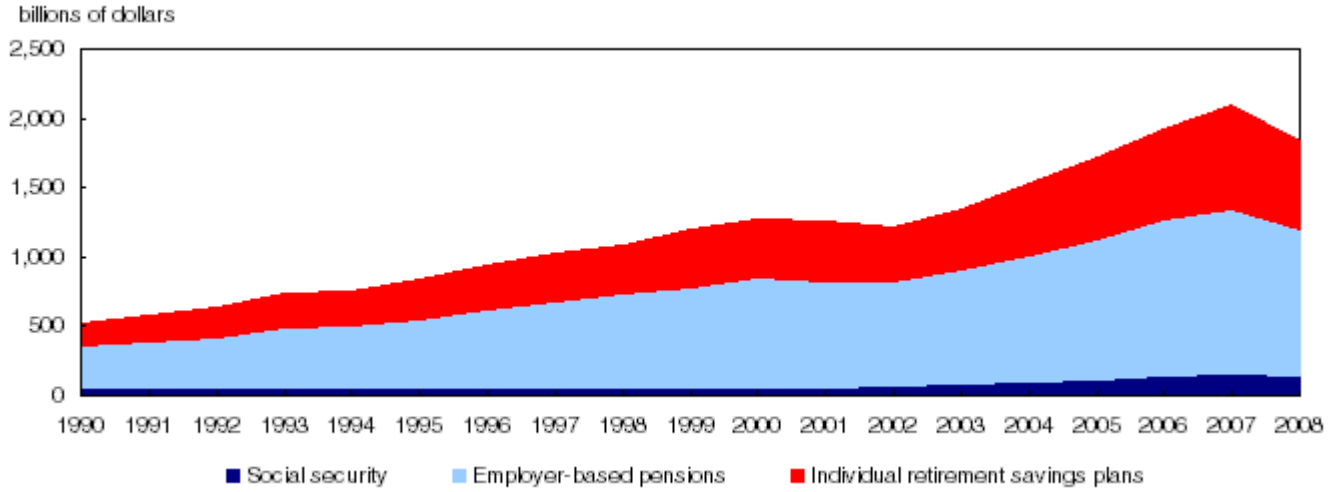


Chart 3.3
Assets in social security pension funds

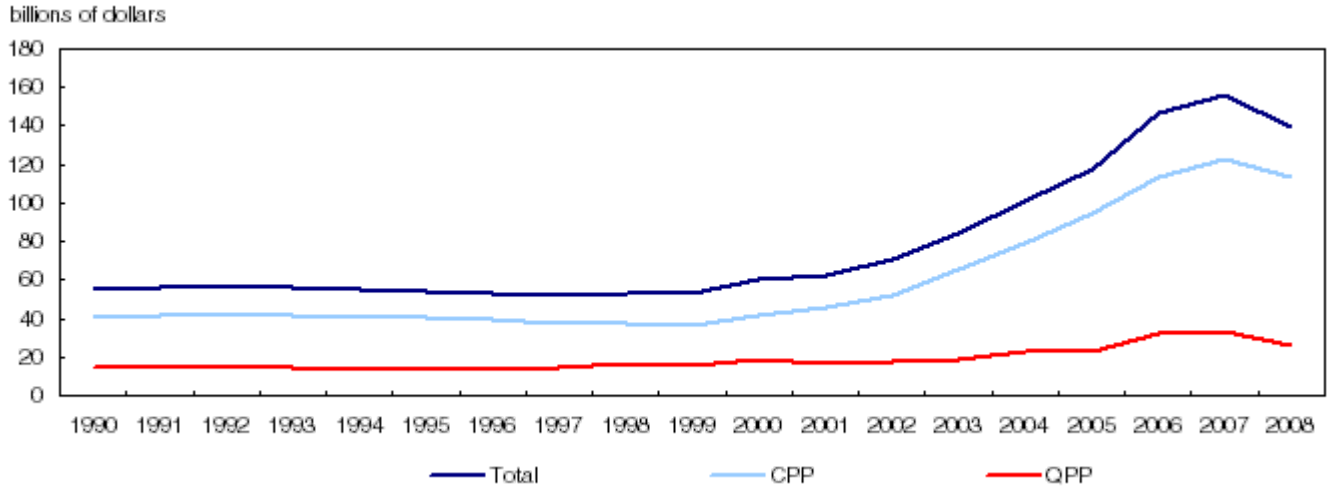


Chart 3.4
Social security

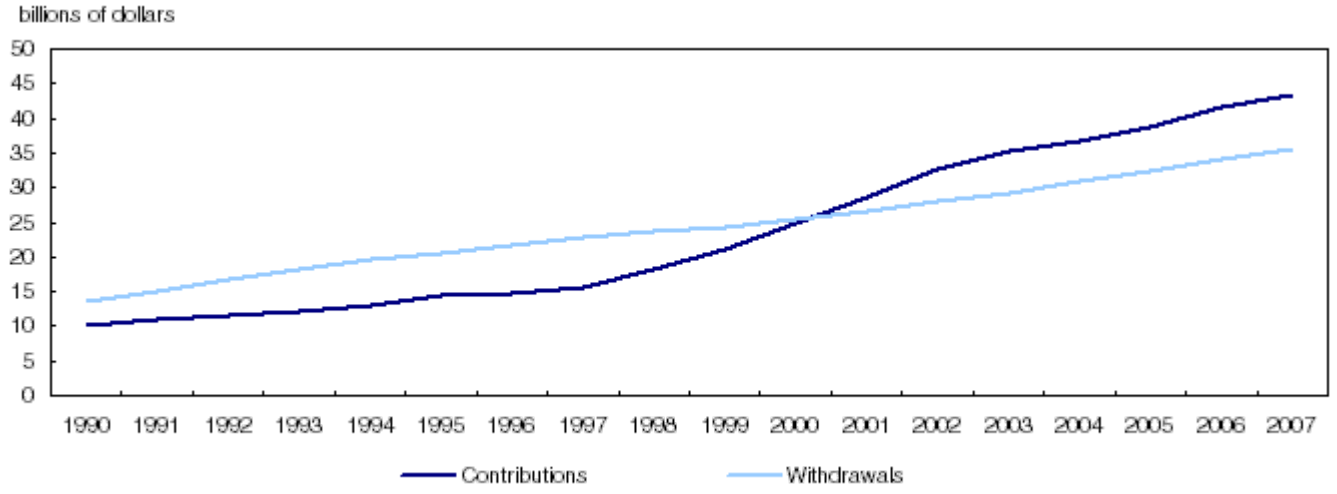


Chart 3.5
Trusteed pension plans - Public

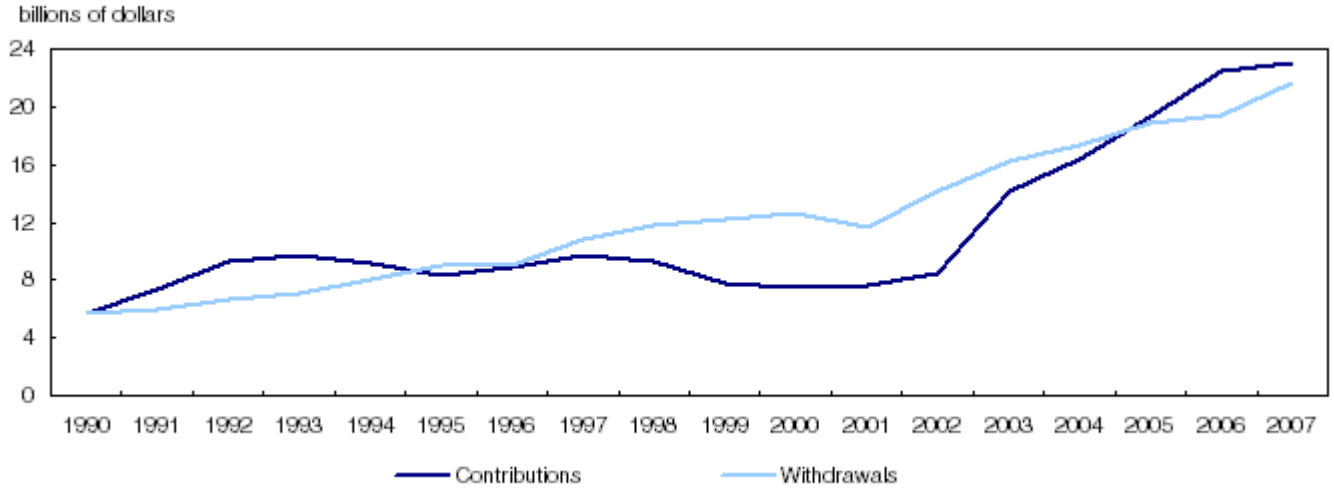


Chart 3.6
Revaluations

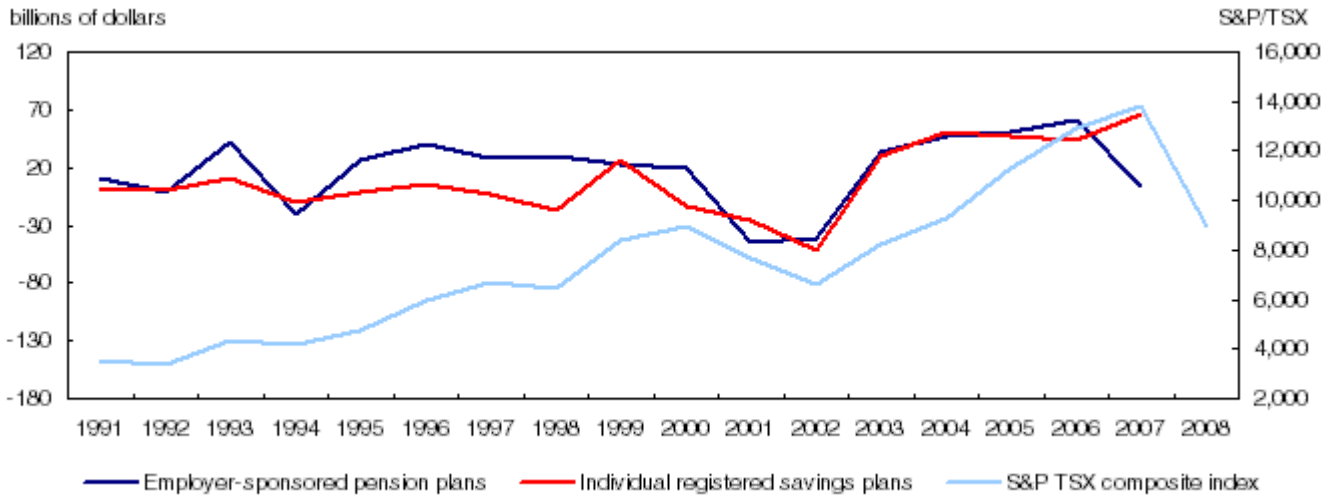


Chart 3.7
Trusteed pension plans - Private

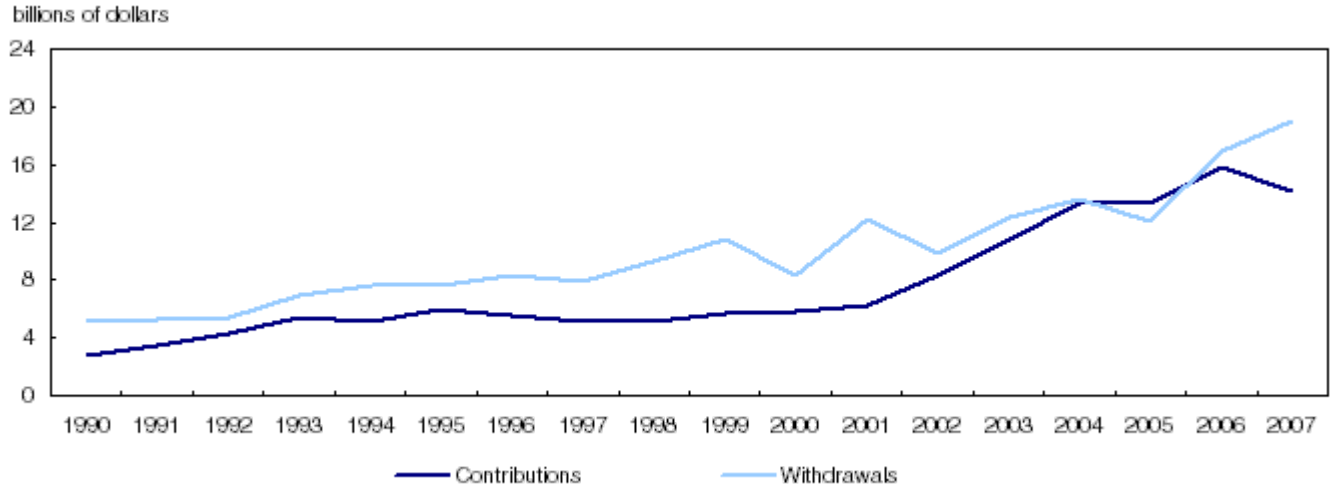


Chart 3.8
Individual registered savings plans

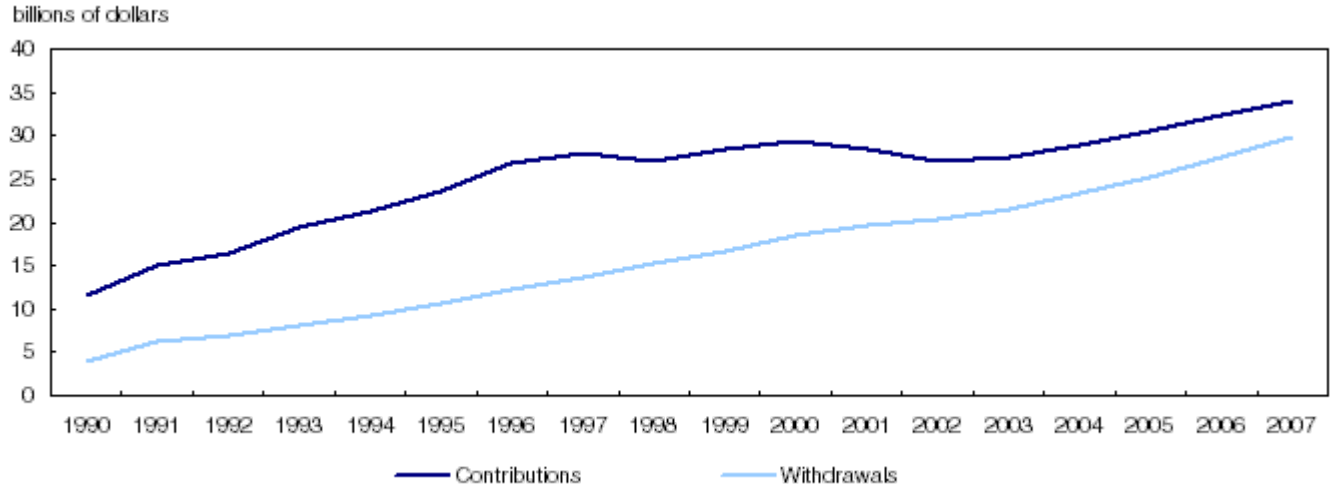


Chart 3.9
Trusteed pension plan assets

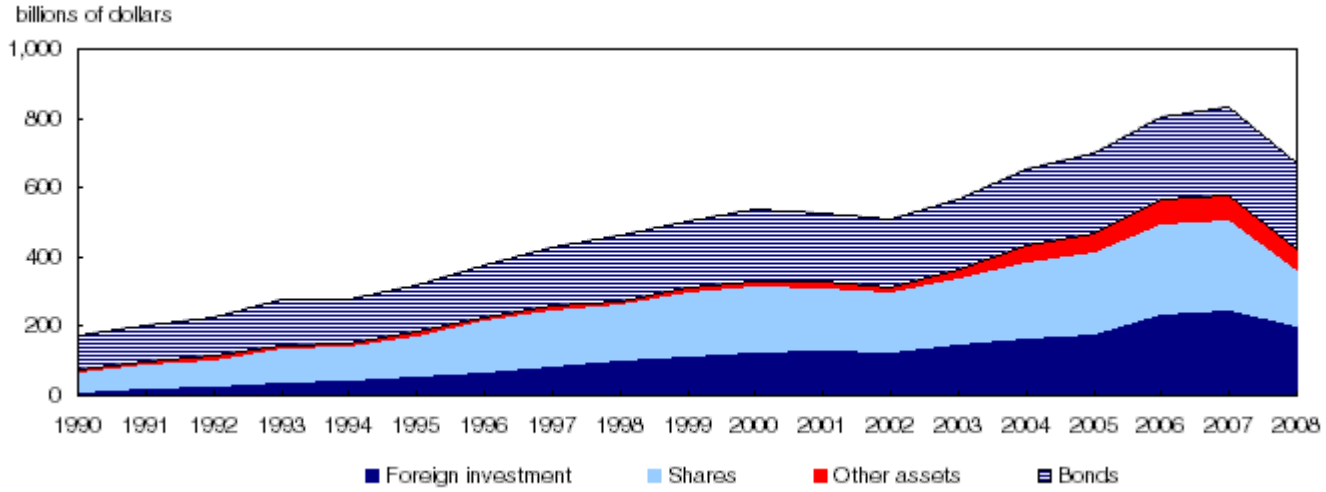


Chart 3.10
Distribution of household financial assets

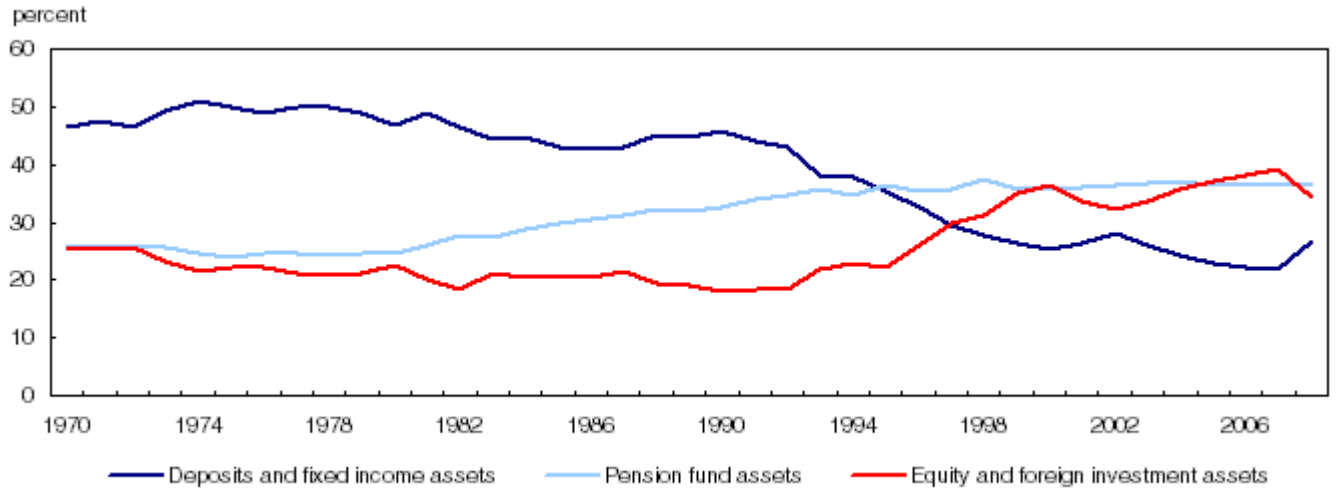
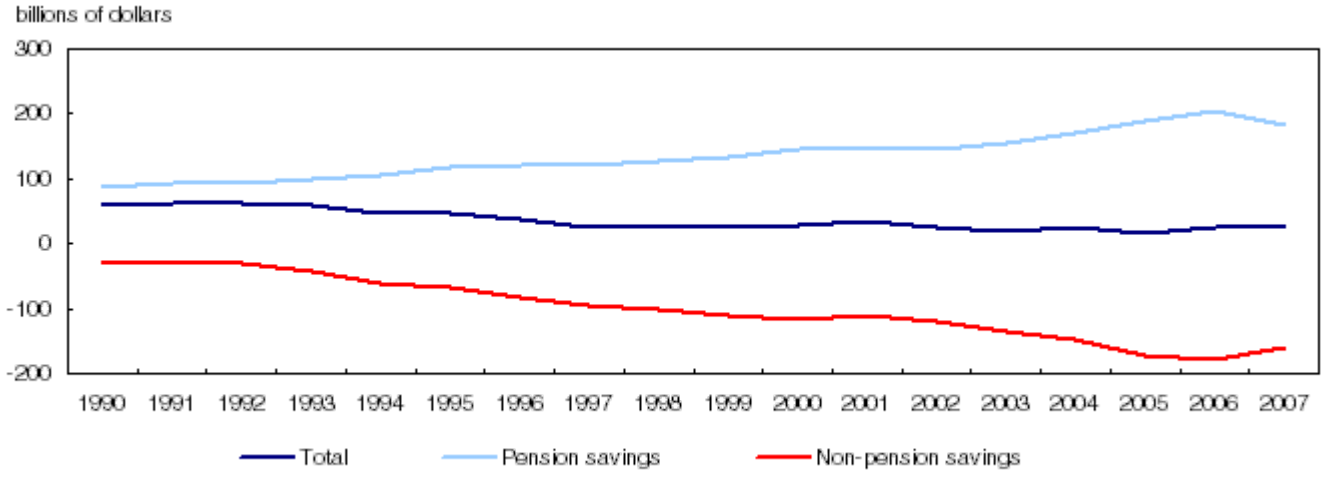


Chart 3.11
Personal saving



Text table 3.1
The main components of the Pension Satellite Account

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
					millions of dollars					
Total Social Security										
Assets	54,900	56,699	56,848	56,635	55,030	54,491	53,206	51,842	53,357	52,805
Contributions	10,117	10,847	11,625	12,208	12,931	14,456	14,761	15,600	18,280	21,000
Investment Income	5,602	5,628	5,492	5,443	5,326	5,375	5,035	4,739	4,652	4,536
Withdrawals	30,819	33,522	36,181	38,040	40,047	41,480	43,201	44,825	46,369	47,568
Withdrawals for OAS/GIS	17,368	18,623	19,377	19,708	20,367	20,871	21,485	22,074	22,646	23,149
Revaluations	..	223	-164	468	-182	239	635	1,048	2,306	-1,669
Canadian Pension Plan										
Assets	40,577	41,915	42,360	42,039	40,995	40,611	39,336	37,554	37,153	36,805
Contributions	7,782	8,396	9,025	9,516	9,969	11,269	11,420	11,945	14,180	16,190
Investment Income	4,387	4,475	4,497	4,479	4,403	4,412	4,178	3,970	3,939	3,858
Withdrawals	10,281	11,389	12,913	14,169	15,247	15,897	16,688	17,466	18,198	18,688
Revaluations	..	-144	-164	-147	-169	-168	-185	-231	-322	-1,708
Quebec Pension Plan										
Assets	14,323	14,784	14,488	14,596	14,035	13,880	13,870	14,288	16,204	16,000
Contributions	2,335	2,451	2,600	2,692	2,962	3,187	3,341	3,655	4,100	4,810
Investment Income	1,215	1,153	995	964	923	963	857	769	713	678
Withdrawals	3,170	3,510	3,891	4,163	4,433	4,712	5,028	5,285	5,525	5,731
Revaluations	..	367	0	615	-13	407	820	1,279	2,628	39
Employer Sponsored Pension Plans										
Assets	302,746	339,841	366,591	436,994	443,586	498,508	567,788	623,653	680,383	732,168
Contributions	14,001	17,066	19,941	21,047	20,034	20,652	21,174	21,901	21,832	22,595
Investment Income	26,326	26,258	26,602	27,776	28,946	31,019	32,724	34,621	36,850	38,241
Withdrawals	15,966	16,868	18,073	20,227	22,209	23,633	24,855	28,945	32,263	32,538
Revaluations	..	10,640	-1,720	41,808	-20,179	26,884	40,236	28,289	30,311	23,487
Trusteed Pension Plans (Public)										

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Assets	111,142	132,874	151,001	190,547	191,040	220,770	248,538	279,848	306,628	335,125
Contributions	5,641	7,315	9,344	9,702	9,194	8,325	8,872	9,649	9,261	7,746
Investment Income	10,500	10,395	10,246	10,606	11,182	11,824	11,732	12,017	13,145	14,083
Withdrawals	5,735	5,955	6,659	7,024	8,065	8,966	8,985	10,765	11,846	12,268
Revaluations	..	9,977	5,196	26,262	-11,818	18,547	16,149	20,410	16,220	18,936
Trusteed Pension Plans (Private)										
Assets	88,266	95,030	99,206	115,997	113,682	129,214	160,462	175,405	185,833	196,753
Contributions	2,762	3,408	4,243	5,364	5,115	6,023	5,513	5,186	5,140	5,694
Investment Income	5,408	5,316	5,269	5,510	5,598	6,183	7,073	7,168	7,798	7,696
Withdrawals	5,107	5,239	5,355	6,936	7,657	7,693	8,357	9,089	10,436	10,850
Revaluations	..	3,279	19	12,853	-5,371	11,019	27,019	11,677	7,926	8,380
Individual Registered Savings Plans										
Assets	157,282	183,199	206,557	239,629	254,798	283,905	320,857	346,432	355,355	407,669
Contributions	11,627	14,935	16,426	19,397	21,271	23,490	26,787	27,898	27,054	28,363
Investment Income	15,311	15,122	13,245	11,664	13,003	17,178	16,287	14,418	14,609	14,922
Withdrawals	3,977	6,301	6,978	8,018	9,281	10,659	12,176	13,550	15,270	16,561
Revaluations	..	2,161	665	10,029	-9,824	-902	6,054	-3,191	-17,470	25,590
Total Pension Accounts										
Assets	514,928	579,739	629,996	733,258	753,414	836,904	941,851	1,021,927	1,089,095	1,192,642
Contributions	35,745	42,848	47,992	52,652	54,236	58,598	62,722	65,399	67,166	71,958
Investment Income	47,239	47,008	45,339	44,883	47,275	53,572	54,047	53,778	56,111	57,699
Withdrawals	50,762	56,691	61,232	66,285	71,537	75,772	80,232	87,320	93,902	96,667
Withdrawals for OAS/GIS	17,368	18,623	19,377	19,708	20,367	20,871	21,485	22,074	22,646	23,149
Revaluations	..	13,023	-1,219	52,304	-30,185	26,221	46,925	26,145	15,147	47,408

	2000	2001	2002	2003	2004	2005	2006	2007	2008
				millions of dollars					
Total Social Security									
Assets	60,010	62,456	70,244	84,470	101,181	121,253	146,261	155,755	139,568
Contributions	24,921	28,621	32,527	35,208	36,805	38,834	41,643	43,469	..
Investment Income	4,755	4,065	4,308	3,981	4,138	4,243	4,995	5,388	..
Withdrawals	49,386	52,259	54,885	57,358	60,246	62,799	65,862	67,833	..
Withdrawals for OAS/GIS	24,043	25,728	26,938	28,160	29,321	30,460	31,858	32,183	..
Revaluations	2,872	-3,709	-1,100	4,235	6,693	9,334	12,374	-3,713	..
Canadian Pension Plan									
Assets	41,660	46,004	52,119	65,716	78,760	94,471	113,581	122,729	113,396
Contributions	19,224	22,105	25,350	27,221	28,440	30,014	32,631	34,526	..
Investment Income	3,902	3,272	3,531	3,230	3,335	3,301	3,726	4,025	..
Withdrawals	19,340	20,189	21,251	22,171	23,425	24,543	25,760	26,994	..
Revaluations	1,069	-844	-1,515	5,317	4,694	6,939	8,513	-2,409	..

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Quebec Pension Plan									
Assets	18,350	16,452	18,125	18,754	22,421	26,782	32,680	33,026	26,172
Contributions	5,697	6,516	7,177	7,987	8,365	8,820	9,012	8,943	..
Investment Income	853	793	777	751	803	942	1,269	1,363	..
Withdrawals	6,003	6,342	6,696	7,027	7,500	7,796	8,244	8,656	..
Revaluations	1,803	-2,865	415	-1,082	1,999	2,395	3,861	-1,304	..
Employer Sponsored Pension Plans									
Assets	786,015	767,051	752,007	821,677	912,297	1,013,729	1,129,004	1,190,319	1,064,836
Contributions	23,480	25,540	27,567	36,482	44,037	47,513	52,993	55,587	..
Investment Income	41,105	39,245	37,046	40,571	42,330	46,637	51,963	56,624	..
Withdrawals	30,859	38,468	37,665	40,057	43,047	43,266	49,896	55,104	..
Revaluations	20,121	-45,281	-41,992	32,674	47,301	50,548	60,215	4,210	..
Trusteed Pension Plans (Public)									
Assets	361,583	363,615	347,225	384,075	435,459	499,851	576,053	624,727	555,720
Contributions	7,460	7,630	8,433	14,088	16,358	19,223	22,486	22,994	..
Investment Income	14,758	14,469	13,735	17,330	17,455	19,649	23,223	24,875	..
Withdrawals	12,587	11,674	14,092	16,286	17,362	18,908	19,482	21,628	..
Revaluations	16,826	-8,392	-24,466	21,718	34,933	44,427	49,975	22,433	..
Trusteed Pension Plans (Private)									
Assets	215,572	203,301	196,116	219,153	243,962	269,650	298,621	300,706	248,714
Contributions	5,852	6,241	8,388	10,861	13,343	13,307	15,867	14,138	..
Investment Income	8,948	7,431	7,143	7,031	8,066	9,526	10,747	12,968	..
Withdrawals	8,321	12,198	9,918	12,363	13,565	12,063	16,881	19,040	..
Revaluations	12,341	-13,746	-12,798	17,508	16,965	14,919	19,238	-5,981	..
Individual Registered Savings Plans									
Assets	422,375	421,675	390,469	440,277	512,009	582,232	652,191	748,971	631,424
Contributions	29,280	28,439	27,073	27,561	28,788	30,581	32,351	34,058	..
Investment Income	17,932	16,743	13,985	13,686	14,879	16,906	20,930	25,684	..
Withdrawals	18,561	19,563	20,333	21,390	23,387	25,096	27,443	29,759	..
Revaluations	-13,945	-26,319	-51,931	29,951	51,452	47,832	44,121	66,797	..
Total Pension Accounts									
Assets	1,268,400	1,251,182	1,212,720	1,346,424	1,525,487	1,717,214	1,927,456	2,095,045	1,835,828
Contributions	77,681	82,600	87,167	99,251	109,630	116,928	126,987	133,114	..
Investment Income	63,791	60,054	55,339	58,238	61,346	67,787	77,887	87,696	..
Withdrawals	98,806	110,290	112,883	118,805	126,680	131,161	143,201	152,696	..
Withdrawals for OAS/GIS	24,043	25,728	26,938	28,160	29,321	30,460	31,858	32,183	..
Revaluations	9,049	-75,309	-95,023	66,860	105,446	107,714	116,710	67,293	..

Text table 3.2
Main components of Employer Sponsored Pension Plans

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
					millions of dollars					
Total [1]										
Assets	302,746	339,841	366,591	436,994	443,586	498,508	567,788	623,653	680,383	732,168
Contributions	14,001	17,066	19,941	21,047	20,034	20,652	21,174	21,901	21,832	22,595
Investment Income	26,326	26,258	26,602	27,776	28,946	31,019	32,724	34,621	36,850	38,241
Withdrawals	15,966	16,868	18,073	20,227	22,209	23,633	24,855	28,945	32,263	32,538
Revaluations	..	10,640	-1,720	41,808	-20,179	26,884	40,236	28,289	30,311	23,487
Trusteed Pension Plans										
Assets	199,408	227,904	250,207	306,544	304,722	349,984	409,000	455,253	492,461	531,878
Contributions	8,403	10,723	13,587	15,066	14,309	14,348	14,385	14,835	14,401	13,440
Investment Income	15,908	15,711	15,515	16,116	16,780	18,007	18,805	19,185	20,943	21,779
Withdrawals	10,842	11,194	12,014	13,960	15,722	16,659	17,342	19,854	22,282	23,118
Revaluations	..	13,256	5,215	39,115	-17,189	29,566	43,168	32,087	24,146	27,316
Trusteed Pension Plans (Public)										
Assets	111,142	132,874	151,001	190,547	191,040	220,770	248,538	279,848	306,628	335,125
Contributions	5,641	7,315	9,344	9,702	9,194	8,325	8,872	9,649	9,261	7,746
Investment Income	10,500	10,395	10,246	10,606	11,182	11,824	11,732	12,017	13,145	14,083
Withdrawals	5,735	5,955	6,659	7,024	8,065	8,966	8,985	10,765	11,846	12,268
Revaluations	..	9,977	5,196	26,262	-11,818	18,547	16,149	20,410	16,220	18,936
Trusteed Pension Plans (Private)										
Assets	88,266	95,030	99,206	115,997	113,682	129,214	160,462	175,405	185,833	196,753
Contributions	2,762	3,408	4,243	5,364	5,115	6,023	5,513	5,186	5,140	5,694
Investment Income	5,408	5,316	5,269	5,510	5,598	6,183	7,073	7,168	7,798	7,696
Withdrawals	5,107	5,239	5,355	6,936	7,657	7,693	8,357	9,089	10,436	10,850
Revaluations	..	3,279	19	12,853	-5,371	11,019	27,019	11,677	7,926	8,380

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Government Consolidated Revenue Agreement										
Assets	89,170	97,354	101,570	114,400	122,943	131,909	140,884	149,161	166,966	174,171
Contributions	4,055	4,773	4,458	4,083	3,846	4,184	4,241	4,002	4,134	4,653
Investment Income	9,491	9,681	10,250	10,848	11,333	12,170	13,074	14,574	14,957	15,331
Withdrawals	4,357	4,907	5,298	5,368	5,504	6,057	6,670	8,227	8,995	8,311
Revaluations	..	-1,363	-5,194	3,267	-1,132	-1,331	-1,670	-2,072	7,709	-4,468
Other Employer Sponsored Pension Plans										
Assets	14,168	14,583	14,814	16,050	15,921	16,615	17,904	19,239	20,956	26,119
Contributions	1,543	1,570	1,896	1,898	1,879	2,120	2,548	3,064	3,297	4,502
Investment Income	927	866	837	812	833	842	845	862	950	1,131
Withdrawals	767	767	761	899	983	917	843	864	986	1,109
Revaluations	..	-1,253	-1,741	-574	-1,858	-1,351	-1,262	-1,726	-1,544	639

	2000	2001	2002	2003	2004	2005	2006	2007	2008
					millions of dollars				
Total [1]									
Assets	786,015	767,051	752,007	821,677	912,297	1,013,729	1,129,004	1,190,319	1,064,836
Contributions	23,480	25,540	27,567	36,482	44,037	47,513	52,993	55,587	..
Investment Income	41,105	39,245	37,046	40,571	42,330	46,637	51,963	56,624	..
Withdrawals	30,859	38,468	37,665	40,057	43,047	43,266	49,896	55,104	..
Revaluations	20,121	-45,281	-41,992	32,674	47,301	50,548	60,215	4,210	..
Trusteed Pension Plans									
Assets	577,155	566,916	543,341	603,228	679,421	769,501	874,675	925,433	804,434
Contributions	13,312	13,871	16,821	24,949	29,701	32,530	38,353	37,132	..
Investment Income	23,706	21,900	20,878	24,361	25,521	29,175	33,970	37,843	..
Withdrawals	20,908	23,872	24,010	28,649	30,927	30,971	36,363	40,668	..
Revaluations	29,167	-22,138	-37,264	39,226	51,898	59,346	69,213	16,452	..
Trusteed Pension Plans (Public)									
Assets	361,583	363,615	347,225	384,075	435,459	499,851	576,053	624,727	555,720
Contributions	7,460	7,630	8,433	14,088	16,358	19,223	22,486	22,994	..
Investment Income	14,758	14,469	13,735	17,330	17,455	19,649	23,223	24,875	..
Withdrawals	12,587	11,674	14,092	16,286	17,362	18,908	19,482	21,628	..
Revaluations	16,826	-8,392	-24,466	21,718	34,933	44,427	49,975	22,433	..
Trusteed Pension Plans (Private)									
Assets	215,572	203,301	196,116	219,153	243,962	269,650	298,621	300,706	248,714
Contributions	5,852	6,241	8,388	10,861	13,343	13,307	15,867	14,138	..
Investment Income	8,948	7,431	7,143	7,031	8,066	9,526	10,747	12,968	..

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Withdrawals	8,321	12,198	9,918	12,363	13,565	12,063	16,881	19,040	..
Revaluations	12,341	-13,746	-12,798	17,508	16,965	14,919	19,238	-5,981	..
Government Consolidated Revenue Agreement									
Assets	180,082	165,576	177,055	180,197	184,194	188,241	193,738	199,288	203,971
Contributions	5,086	4,667	5,441	5,696	6,003	6,259	6,389	6,810	..
Investment Income	16,106	15,918	14,920	14,812	14,980	15,269	15,581	15,836	..
Withdrawals	9,078	13,088	12,325	9,710	10,220	10,592	11,306	11,801	..
Revaluations	-6,203	-22,003	3,443	-7,656	-6,766	-6,889	-5,167	-5,295	..
Other Employer Sponsored Pension Plans									
Assets	28,778	34,559	31,611	38,252	48,682	55,987	60,591	65,598	56,431
Contributions	5,082	7,002	5,305	5,837	8,333	8,724	8,251	11,645	..
Investment Income	1,293	1,427	1,248	1,398	1,829	2,193	2,412	2,945	..
Withdrawals	873	1,508	1,330	1,698	1,900	1,703	2,227	2,635	..
Revaluations	-2,843	-1,140	-8,171	1,104	2,169	-1,909	-3,831	-6,947	..

1. The total also includes Government of Canada annuities, which have less than $1 billion in assets.