#### Canadian Pension System: Problems and Reform

by

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# This thesis by Mengxue Zhang is accepted in its present form by the Department of Economics as satisfying the thesis requirements for the degree of Bachelor of Arts with Honours

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#### **Abstract**

Under the great pressure of the aging population and the recent recession, Canadians are facing a national pension crisis. The pension issue has increasingly become one of the hot topics of concern in the government, the public and academia. This paper provides a thorough examination of the current Canadian public pension system. It discusses in detail the major programs and benefits in the three-pillar pension system. Using the existing literature on particular issues regarding the pension system (i.e. pension coverage, replacement rate, contributions, etc.), I provide an overall discussion of the pension system in Canada and the challenges faced by the future retirees. Problems are explained in demographic, economic and administrative perspectives. This paper also infers two possible solutions for pension reform: one is to improve the system by fixing the current one and the other is to innovate by carrying out a new program. These proposals, Vertical Expansion of the CPP (VEC) and Canada Supplementary Pension Plan (CSPP), are explained and compared in this paper. Finally, pension facts and strategic reform response in Nova Scotia are presented.

#### **Chapter 1: Introduction**

Pension is the main source of retirement income for most Canadians. Recently, Canada's retirement income system has attracted widespread attention. Most developed countries are suffering a series of pension funding problems and have witnessed the decline in pension coverage. In 2010, the Melbourne Mercer Global Pension Index compared retirement income systems around the world and rated them based on their adequacy, sustainability and integrity (Mercer, 2010). Canada was among the 14 objective countries. When compared to the thirteen other countries, Canada got an overall index score of 69.9 which was ranked the 5<sup>th</sup>, and this ranking was behind one place compared to 2009's position. In the three subindices, sustainability had the worst score which was only 56.8. Mercer index also pointed out that the worst scoring indicator in the sustainability feature was the pension coverage.

Canada was one of the earliest countries to establish a complete pension system in the world, but this does not mean that Canada has achieved a mature and optimal pension system. In the circumstances of the global aging population, the Canadian pension system must be improved to provide adequate benefits for the elderly.

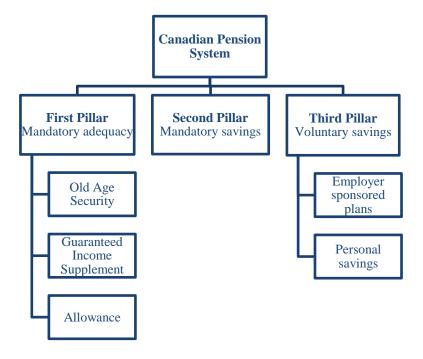
This paper will take a closer look at the structure of pensions and benefits that are available to workers in Canada. It will also use some figures and facts to help explain the current trends in the Canadian pension system. Using these facts, problems facing the pension system will be addressed. Following the discussion on

problems, I will examine the reform and solutions suggested in the literature. This paper will mainly focus on comparing the two popular proposals, Vertical Expansion of the CPP (VEC) and Canada Supplementary Pension Plan (CSPP). Finally, Nova Scotia's pension system and its response to its challenges will also be mentioned.

#### **Chapter 2: Canadian Pension Income System**

According to official classification, the Canadian pension income system mainly consists of three pillars. The first and second pillars consist of mandatory savings enforced by government in the form of taxed income, and the third pillar is the personal savings pension plan contributed by the employer or individuals on a voluntary basis.

Figure 1: The different types of retirement-income provision in Canada



# 2.1 The first pillar – Old Age Security (OAS), Guaranteed Income Supplement (GIS) and Allowance

#### 2.1.1 Old Age Security Pension (OAS)

This program was implemented from 1952 onwards, and it is the most important part of the old age security system. It covers the entire population. To

enjoy this benefit, there are two conditions for the recipients. One is that their age should be over 65, and the other is that they should have been living in Canada for 10 years after turning 18. Those who have lived in Canada for over 40 years could receive a full OAS. When the income of the recipients reaches the established maximal amount - in 2011 this amount was determined at \$67,668 - the part over the amount should be taxed and this tax will be deducted from OAS.

#### 2.1.2 Guaranteed Income Supplement (GIS)

This is a tax-free benefit provided for those low-income OAS recipients on a monthly basis. The eligible individuals should apply for the GIS every year based on their income status. If their income is above the maximum (see the table below for details), they will be disqualified for GIS. The income requirement is based on the family income.

#### 2.1.3 Allowance and Allowance for survivor

Those aged 60 to 64 can apply for the allowance even when their spouse or common-law partner is either receiving or is entitled to receive OAS and GIS. If the recipient's spouse or common-law partner has died and he or she has not remarried or entered into a common-law partnership exceeding 12 months since then, he or she can apply for the allowance for survivor. The maximum monthly benefit and requirement limit are shown below:

Table 1: Old Age Security Benefit Payment Rates January - March 2011

Type of Benefit	Recipient	Average Monthly Benefit (September 2010)	Maximum Monthly Benefit	Maximum Annual Income
Old Age Security Pension	All recipients	\$490.47	\$524.23	See note
	Single person	\$452.04	\$661.69	\$15,888
Guaranteed Income Supplement	Spouse of pensioner	\$286.53	\$436.95	\$20,976
	Spouse of non- pensioner	\$431.73	\$661.69	\$38,112
	Spouse of Allowance recipient	\$376.23	\$436.95	\$38,112*
Allowance	All recipients	\$390.15	\$961.18	\$29,376
Allowance for the survivor	All recipients	\$575.01	\$1,065.45	\$21,408

<sup>\*</sup> For Spouse of Allowance recipient, the Allowance stops being paid at \$29,376 while the GIS stops being paid at \$38,112.

Note - Pensioners with an individual net income above \$67,668 must repay part or all of the maximum Old Age Security pension amount. The repayment amounts are normally deducted from their monthly payments before they are issued. The full OAS pension is eliminated when a pensioner's net income is \$109,607 or above.

(Source: Service Canada, 2011).

Basically, the first pillar is a safeguard plan for old people. It is funded from taxes and unified management by the federal government. Actually, this is an income transfer system. In general, the tax revenue is relatively stable. Old age security pension benefits will adjust with the changes in the cost of living, and the benefits are not affected by inflation. The first pillar will not only ensure the basic livelihood of the elderly, but also reduce the payment burden on employers and individuals.

#### 2.2 The second pillar – the Canada and Quebec Pension Plans (CPP&QPP)

The Canada Pension Plan was founded in 1966. The purpose for establishing

this plan is to protect the contributor and his family from financial hardship when he retires in old age, or lose the ability to work due to disability or death. This plan is enforced by the government rather than the implementation of the internal decision-making. This means that all types of businesses in Canada have to purchase Canada Pension Plan for employees, so this is a compulsory pension plan. Whether they are employed or self-employed, a percentage of their earned wages must be supplied to the pension plan. Employers also need to contribute the same amount of money into the employee's pension plan account. For those self-employed, they should pay all their contributions. Larger amount and longer duration of contributions will ensure higher level of pension income received in the future.

QPP and CPP are very similar in structure and mode of operations. The main difference is that CPP is managed by the Canadian Social Development Council; and the QPP is under management of the Quebec provincial government on behalf of the Quebec residents. The co-operation of the two pension plans ensures that all current workers in Canada are in the coverage of post-retirement insurance.

Canada Pension Plan consists of four parts: Retirement Pension, Disability Benefits, Survivor Benefits and Children's Benefits for Students aged 18 to 25.

#### 2.2.1 Retirement Pension

A CPP retirement pension is an earnings related social insurance program that provides basic benefits when a contributor to the plan retires or becomes disabled. When contributors die, the Plan provides benefits to their survivors. It is a monthly benefit paid to people who have contributed to the Canada Pension Plan.

The pension is designed to replace about 25% of a person's earnings from employment, up to a maximum amount. For 2010, the maximum amount was \$934.17.

#### 2.2.2 Disability Benefits

Disability benefits are monthly payment benefits, for those who made contributions to the Canada Pension Plan while they were working but can no longer work due to disability. The conditions for recipients to receive this benefit are: age must be below 65; they cannot work due to physical conditions; in the last 6 years of working, they contributed to the CPP at least 4 years. In 2010, the average disability benefit was \$810.46.

#### 2.2.3 Survivor Benefits

Canada Pension Plan survivor benefits are paid to a deceased contributor's estate, surviving spouse, or common-law partner and dependent children. There are three types of benefits. The death benefit is a one-time payment to, or on behalf of, the estate of a deceased Canada Pension Plan contributor; the survivor's pension is a monthly pension paid to the surviving spouse or common-law partner of a deceased contributor; the children's benefit is a monthly benefit for dependent children of a deceased contributor. For details about the payment rates, see the table below.

#### 2.2.4 Children's Benefits for Students aged 18 to 25

The recipients of this benefit are full-time students between the ages of 18 and 25 whose parents or guardians are receiving a Canada Pension Plan disability benefit or have died; they may be eligible for a monthly payment from the CPP. In

2010, the average payment of Children's Benefits was \$214.85.

Table 2: Payment Rates of different types of benefits in Canada Pension Plan:

Type of benefit	Average benefit (September 2010)	Maximum monthly benefit (2011)
Disability benefit	\$810.46	\$1,153.37
Retirement pension (at age 65)	\$504.50	\$960.00
Survivor benefit (under age 65)	\$364.85	\$529.09
Survivor benefit (age 65 and over)	\$297.72	\$576.00
Children of disabled contributor's benefit	\$214.85	\$218.50
Children of deceased contributor's benefit	\$214.85	\$218.50
Combined survivor & retirement benefit (pension at age 65)	\$682.21	\$960.00
Combined survivor & disability benefit	\$940.78	\$1,153.37
Death benefit	\$2,252.93	Maximum one-time payment \$2,500.00

(Source: Service Canada, 2011)

Canada Pension Plan is a portable pension scheme. It allows contributors to still have the right to enjoy the entire paid portion of benefits when they transfer jobs in Canada. Therefore, it is no exaggeration to say that the Canada Pension Plan covers the entire work period of all Canadians.

# 2.3 The third pillar – Employer sponsored plans and Personal savings for retirement

#### 2.3.1 Employer sponsored plan

The Employer sponsored plan is an old-age income plan established voluntarily by the employer. This plan is also known as the "Registered Pension Plans" (RPPs). It is invested by the employers or the employers and the employees;

those who are self-employed pay by themselves.

The employers make the decision on which institution to invest in. Once paid, the employers and employees cannot have control of the fund or withdraw or request a refund. Employees are not at liberty to extract the money. They have to wait till retirement to receive the insurance money.

The Ontario Teachers' Pension Plan (OTPP) is one of Canada's largest payrolls, and it is also a good example of employer sponsored plan. The OTPP pays \$4.4 billion in pension benefits annually. It is a Defined-Benefit plan co-sponsored by the Ontario government through the Ministry of Education, and the Ontario Teachers' Federation (OTF), representing plan members. The OTPP was established on December 31, 1989. Prior to this, Ontario teachers' pensions had been sponsored solely by the Ontario government. Assets of the plan had been invested in government bonds only. Today, the OTPP administers the pensions for some 175,000 teachers, principals, and school administrators, and pays pensions to some 114,000 retirees. According to December 31, 2009 statistics, the net assets of OTPP was \$96.4 billion. The investment income in 2009 was \$10.9 billion. Compared to the benchmark, the rate of return was 4.2% higher for OTPP in 2009 and 2.1% higher in average since 1990.

Table 3: Assets and contributions (OTPP)

Net assets:	\$96.4 billion
Investment income in 2009:	\$10.9 billion
Benefits paid in 2009:	\$4.4 billion
Annual contributions:	\$2.7 billion

(Source: OTPP, 2010)

Table 4: Performance (OTPP)

	Rate of return	Benchmark	Results versus Benchmark
2009:	13.0%	8.8%	\$3.4 billion above benchmark
Average since 1990:	9.7%	7.6%	\$19.2 billion above benchmark

(Source: OTPP, 2010)

The inflow of OTPP funding consists of two parts: the first part is contributed by the teachers in this plan and averaged 11% of earnings in 2010; the second part is contributed by the Ontario government and designated private schools and organizations, which match the teachers' contributions. In other words, each part contributes 50% of the funds. In 2009, the annual contributions to the plan were \$2.7 billion.

#### 2.3.2 Personal Savings

Personal savings towards retirement are made mainly in the form of "Registered Retirement Savings Plans" (RRSPs). An RRSP is a personal retirement plan that needs to be registered and that recipient or recipient's spouse or commonlaw partner establish the plan and contribute to it. Candidates pay a portion of income each year into their RRSP account at the time of contribution, and deductible RRSP contributions can be used to reduce income tax payments. The maximum RRSP contribution limit for the year 2011 is \$22,450. However, if candidates did not use all of their RRSP contribution limit for the years 1991-2010, they can carry forward the unused amount to 2011. Therefore, the RRSP contribution limit for 2011 may be more than \$22,450. From the data below, one can see that the RRSP contribution limit increases every year.

The maximum RRSP contribution limit for subsequent years is as follows (Tax Services, 2011):

- 2011 maximum RRSP contribution limit: \$22,450
- 2010 maximum RRSP contribution limit: \$22,000
- 2009 maximum RRSP contribution limit: \$21,000
- 2008 maximum RRSP contribution limit: \$20,000
- 2007 maximum RRSP contribution limit: \$19,000

Any income contributors earn in the RRSP is usually exempt from tax for the time the funds remain in the plan. However, the fund owners generally have to pay tax when they cash in, make withdrawals, or receive payments from the plan (Canada Revenue Agency, 2010).

#### 2.3.3 Funding Methods

There are two kinds of funding methods for RPPs. One is the Defined-Benefit pension plans (DB). The other is the Defined-Contribution pension plans (DC).

With Defined-Benefit plans, the recipients are promised a specified monthly benefit on retirement that is predetermined by a formula based on their earnings' history, tenure of service, and age, rather than depending on investment returns. The plan is 'defined' in the sense that the employee's post-retirement income is known in advance.

With Defined-Contribution plans, the amount of the employer's annual contribution is specified. Individual accounts are set up for participants and benefits are based on the amounts credited to these accounts plus any investment earnings on the money in the account. Only contributions to the account are guaranteed, but not the future benefits.

In 2000, 84% of all pension plan members belonged to Defined-Benefit plans.

On the other hand, only 14% of all RPP members belonged to Defined-Contribution plans (Statistics Canada, 2003).

Among all the employer-sponsored occupational pension plans in 2000, 53% of plans were Defined-Contribution plans which covered 14% of members because this kind of plan tended to exist in small establishments with few employees. As well, there is a growing trend toward such plans, in part because of the extensive regulations being put on the Defined-Benefit plans and the uncertainty and conflict over who "owns" the surplus assets that have often been generated in the Defined-Benefit plans. (Benjamin, Gunderson, Lemieus, & Riddell, 2007)

Whether they participate in DB plans or DC plans, employers and employees can benefit from tax cuts and tax avoidance. They can report annually to the federal and provincial Inland Revenue Department to enjoy tax concessions, and there is contribution limit for both kinds of plans.

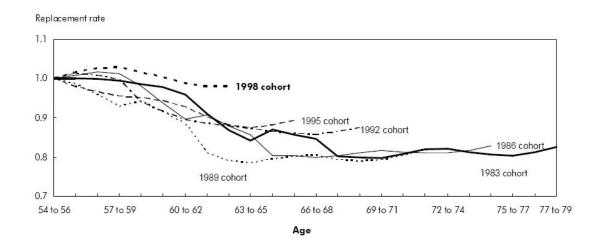
#### **Chapter 3: Some Facts and Figures (Pension Coverage)**

In Chapter 2 I have introduced the multi-layered Canadian pension income system. Now we want to evaluate how Canadians fare under this system. Let the facts and figures tell us the story.

#### 3.1 What is the Average Income Replacement Rate at Retirement?

A replacement rate measures the extent to which income flows (mainly earnings) are 'replaced' by various sources of income (public and private pensions, investments and earnings) as an individual makes the transition from the workforce to retirement. This rate is very important since it determines the post-retirement standard of living.

Figure 2: Median replacement rates of family adult-equivalent adjusted income for all individuals by cohort



(Source: Statistics Canada, 2007)

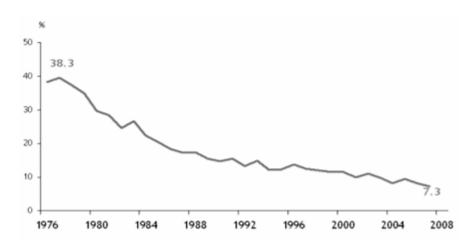
The figure above shows the median replacement rates of family adultequivalent adjusted income for all individuals by cohort at retirement. In general, the more recent cohorts have a higher income than the 1983 cohort. The current trend shows that retirees have a relatively higher replacement rate in their early retirement years, and then the rate drops to about 80%.

While a 70% income replacement rate is, perhaps, the standard assumption to maintain the basic standard of living at post-retirement, a median rate of 80% seems pretty good. Most Canadians of retirement age are still not ready for retirement. Head of Bank Of Montreal's Retirement Institute, Ms. Di Vito, stated that some clients say that "the income replacement rate they are looking to create is not 50% or 70%. Some [suggest] that it is 100% or 120% because they are planning to spend more. They have raised their kids and paid their mortgage. Retirement is their time." She also provided a caution: "In the first five or seven years when our health is good, we spend more. Canadians must think about that, because a few years of bad markets or overspending can cause retirement savings to dwindle ...." (Meighen & Hervieux-Payette, 2010)

#### 3.2 Are Canadians Saving Enough for Their Retirement?

The Canadian Institute of Actuaries released an article called "Planning for Retirement: Are Canadians Saving Enough?" on June 2007. According to the findings of this report, only one in three Canadians expecting to retire in 2030 are saving at levels required to meet basic household expenses in their retirement, and many may need to sharply increase their annual savings or continue working past age 65 to avoid financial hardship.

With the first and second pillars (seniors' benefits and the CPP/QPP), the income of seniors is much higher today than it was 30 years ago. The households at or below low income cut-off (after tax) dropped from 38.3% in 1976 to 7.3% in 2007. Figure 3: Percentage at or below Low Income Cut-off (after tax) - all households 65+, 1976-2007



(Source: Robson, 2010)

However, in most cases, the income replacement rate is higher for low-income individuals than for those with high incomes. The first and second pillars only provide a stable pre-retirement standard of living in retirement for people in the low-income group. Middle and high income Canadians are heavily reliant on occupational pension plans and individual savings (Registered Retirement Saving Plans).

These facts give rise to following key questions: Are Canadians voluntarily setting aside enough for their own retirement through private pensions and registered savings? Are Canadians saving with employer-sponsored plans? Are Canadians saving all they can within tax rules?

#### 3.3 Pension Coverage and Retirement Savings

#### 3.3.1 Coverage in RPP

Table 5: Change of pension coverage rate for four age-sex groups between 1984 and 1998

	Employees covered by a pension plan*				Taxfile		contribu RPP**	utions	
	Men		Women			Men		Women	
	25-34	35-54	25-34	35-54		25-34	35-54	25-34	35-54
					%				
1984	54.2	69.3	46.7	45.7					
1986	50.4	67.2	42.9	46.4		26.2	37.8	27.6	31.9
1987	49.6	67.6	43.1	46.8		25.6	37.0	27.3	32.3
1988	50.9	67.5	43.0	49.6		25.5	37.0	27.7	33.8
1989	51.7	68.9	43.2	50.8		24.7	36.2	27.3	34.3
1990	49.1	69.2	44.8	50.5		24.5	36.1	27.7	35.0
1991						24.1	35.7	27.7	35.7
1992						23.8	35.5	28.2	36.5
1993	46.9	68.7	46.3	54.2		23.2	35.3	27.9	36.8
1994	49.2	71.0	44.3	55.8		22.1	34.4	27.0	36.6
1995	45.4	67.2	42.7	53.9		21.2	33.8	26.2	36.5
1996	43.9	63.2	40.9	51.9		20.3	32.9	25.1	36.0
1997	42.6	62.5	40.4	50.7		19.7	32.2	24.0	35.0
1998	43.6	62.4	38.7	50.8					
Change (%)									
1986-1997	-15.5	-7.0	-5.8	9.3		-24.8	-14.8	-13.0	9.7
1993-1997	-9.2	-9.0	-12.7	-6.5		-15.1	-8.8	-14.0	-4.9

Sources: Survey of Union Membership; Labour Market Activity Survey; Survey of Labour and Income Dynamics; Longitudinal Administrative Databank

(Source: Morissette and Drolet, 2001)

Between the year 1984 and 1998, RPP coverage declined for three of the four age-sex groups. For young men, it dropped by 10% from 54% to 44%. For primeaged men, the decline was milder: it fell from 69% to 62%. The 7% drop in young

<sup>\*</sup> Main job in December.

<sup>\*\*</sup> Taxfilers with annual earnings (wages and salaries plus net income from selfemployment) of at least \$1,000 (1994 dollars).

women's RPP coverage began in 1993; before that time, it was relatively stable. The only group with an increase in RPP coverage during 1984 and 1998 was the primeaged women group. Its rate went up from 46% to 55% in 1993 then dropped slightly back to 51%.

Whether or not a worker is covered by an RPP mainly depends on three factors: i) workers' eligibility rate ii) the eligible workers' participation rate and iii) employers' offer rate. Let's start with the first one which is the workers' eligibility rate. Before the mid-1980s, the eligibility for a pension plan had a lot of requirements. The new legislation introduced by most provinces between 1984 and 1993 imposed a minimum requirement on employers. This change actually had increased the proportion of employees eligible to join pension plans (Morissette and Drolet, 2001). There is not much data about eligible workers' participation rate, since workers in different age or sex groups may have different propensities to participate. Hence, I will focus on the third factor, which is employers' offer rate, to explain the change in RPP coverage.

As I mentioned before in Chapter 2, RPP belongs to the third pillar, which falls under the category of voluntary savings. Employers are not "required" to offer an RPP for their worker. Since RPP is beneficial for employees, many employers will use this as a method to keep their employees. However, offering RPP is costly for firms. Large companies will have relatively lower administration costs compared to small companies as a result of economies of scale. In recent years, the administrative costs tend to increase, so this reduces firms' incentives to provide

RPPs. This is one reason that explains the drop in RPP coverage of most of the target groups. Secondly, the type of employment also affects workers' pension coverage. Usually employers have less incentive to offer low-skilled workers an RPP because the worker turnover is not very costly. Between the year 1984 and 1998, employment for men has shifted away from high-coverage industries to low-coverage industries (Morissette and Drolet, 2001). This can explain the drop in men's coverage rate. A final consideration in that many unions will negotiate the RPP coverage for their workers, and so the RPP coverage for workers in unionized jobs is much higher. However, during this period the unionization rate fell from 39% to 26% for young men and from 48% to 41% for prime-age men, implying a drop in the RPP coverage as well. Young women's RPP coverage dropped for the reasons similar to men's. The condition for prime-aged women is just the opposite.

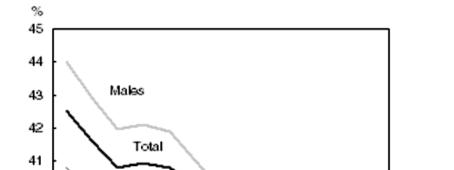


Figure 4: Percentage of employees covered by a registered pension plan

(Sources: Statistics Canada, 2009)

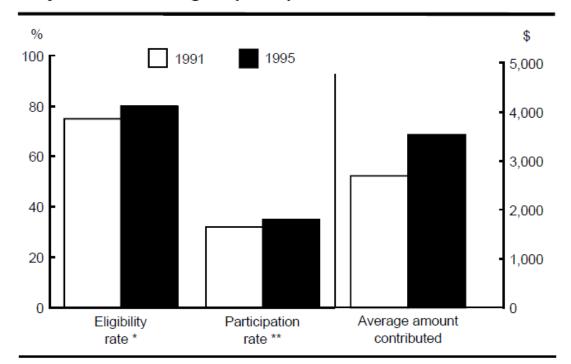
Females

The figure above shows the more recent status of RPP coverage. From the year 1996 to 2008, RPP coverage decreased 7% for men, 2% for women, and 5% in total. Till the year 2008, the employer-sponsored pension coverage fell to 38%. Colin Hansen (2010) also mentioned that 67% of the Canadian labour force and three in four private sector employees are not covered by an occupational pension.

If the voluntary savings can fill the gap of the decline in employer-sponsored pension plans, the decline in potential retirement income might not be drastic. However, this is still not the case, as it will be explained in the following subsection.

3.3.2 Retirement Savings (RRSP)

Figure 5: Percentage of those eligible participated in RRSPs in 1995



Only 35% of those eligible participated in RRSPs in 1995.

Source: RRSP room file

(Source: Hansen, 2010)

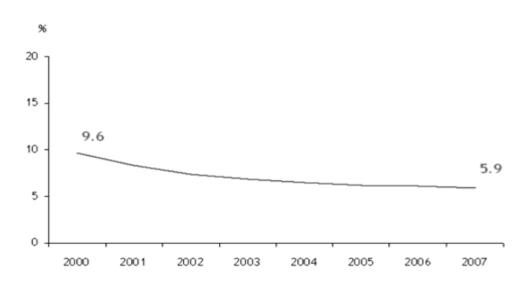
Proportion of taxfilers with normal contribution room.

<sup>\*\*</sup> Contributors to normal RRSPs as a percentage of eligible contributors.

By looking at the bar chart above, we can see that RRSP contributions are low. In 1995, there were 80% people eligible for RRSP program. Only 35% of those eligible participated in RRSPs. Though this program can help tax-filers reduce tax and save for their retirement, and the RRSP contribution limit is increasing every year, this still has not encouraged individuals to invest.

From the figure below, we can see that in the period 2000 to 2007, the proportion of RRSP room used by contributors was continuously decreasing. In 2007, contributions represented only 6% of the total RRSP room available to tax-filers. Further, contributions are skewed towards individuals in the top level of income distribution (TD Economic Special Report, 2009). Since the economic downturn of the past year, one in eight Canadians has either reduced contributions or stopped contributing to an RRSP (HSBC, 2009).

Figure 6: Proportion of RRSP Room used by Contributors (%)



(Source: Robson, 2010)

Given the facts of low income replacement rate as well as the decline in the pension coverage and the contributions to RRSPs, the post retirement income on average will go down, a fact which translates to a lower level of standard of living in post-retirements. These facts sound the alarm on the current pension system. In the next chapter, I will look at the problems facing the pension system.

#### **Chapter 4: Problems Facing the Pension System**

As I mentioned in the previous chapter, the income replacement rate at retirement is shrinking. Except for those people in the very low income group who can maintain their pre-retirement standard of living after retirement by receiving adequate pension income from Pillars 1 and 2, most Canadians will be facing uncertainty regarding the expected level of income received in their retirement. In my opinion, the problems related to retirement can be classified into three main areas: Demographics, Economic crisis, and Administration.

#### 4.1 Demographic Issues

Just like most developed countries, Canada is experiencing an aging population. The baby boomers are progressively reaching retirement. Statistics indicate that by 2031, more than 25% of the population will have reached the age of 65; while in 2005, this proportion was only 15%. This situation not only increases the pressure on the retirement system, but also on health and other social program costs. At the same time, improved quality of life and medical advances have increased people's average life expectancy. According to the 21<sup>st</sup> Actuarial Report on the Canada Pension Plan (OSFI<sup>1</sup>, 2003), the average life expectancy of the Canadian population over 65 years increased from 13.8 years in 1966 to 17.1 years in 2001. By projections, in 2025 the life expectancy for men over 65 years will reach 19 years

<sup>&</sup>lt;sup>1</sup> The Office of the Superintendent of Financial Institutions Canada

and women's life expectancy is generally always longer. Moreover there is also a trend toward early retirement - the average retirement age in 1976 was 65 years, but recently it has decreased to 61. These factors indicate that people expect to draw on their pensions for a longer period of time, resulting in higher pension costs.

On the other hand, the payments of pensions are facing heavy pressure. Since the late 80's in the 20th century, the Canadian economy has experienced several recessions. Due to changes in social attitudes, the fertility rate also decreased significantly. The birth rate per woman decreased from 3.6 in 1947 to 1.66 in 1996. The decline in the birth rate will affect the contribution rate and payment rate of pension plans due to a potentially shrinking labour force in the future. Another fact is the slower labour force growth. In 1981, the workers-to-retiree ratio was 5.3:1. In 2009, the rate dropped to 4.7:1, and this ratio is expected to decline further in the near future. In 2030, the ratio will be 2:1. The changes in the underlying demographics add intergenerational funding pressures to the pension system.

Fewer people contribute to but more people demand from the pension funds; hence, the long term demographic trends will challenge the Canadian pension system.

#### 4.2 State of the Economy

The recent economic crisis has placed a large burden on the pension system in Canada, particularly on the employer-sponsored retirement programs and RRSPs. In 2007, the Canadian registered retirement savings plan and other retirement programs had assets of almost 2 trillion dollars. With the downturn in global stock

markets, corporate bonds and real estate markets, the pension funds of Canada also suffered staggering losses. The estimated loss was \$300 to \$400 billion. This negative shock to the economy has placed the complex Canadian pension system under great pressure.

Caisse de depot et placement du Quebec, Canada's largest pension fund, reported a record loss of \$39.8 billion as of Dec. 31, 2008. As a result, total assets under allocation fell from \$155.4-billion to \$120.1-billion in 2007. The balance was made up of \$4.6 billion in new deposits (Financial Post, 2009).

Currently, most Canadians do not have employer-sponsored pension plans.

The funds of RRSPs are experiencing great losses. Those who are close to retirement age and most fully rely on their registered retirement savings plans will not have a decent post-retirement life unless they postpone their retirements.

The loss experienced by the pension funds was particularly gruesome in the private sector, where pension managers are significantly less experienced than their public-sector counterparts. "The pension burden has proven to be too great," said Ian Markham, a director with pension consultant Watson Wyatt Worldwide, who estimated the average Canadian corporate plan is 20 per cent short of the assets it needed to fund its long-term pension obligations. That deficit adds up to about \$50-billion, a staggering IOU that is crippling a number of companies. (The Globe and Mail, 2009)

Another point that is worth mentioning is that the economic crisis affected

Defined-Benefits and Defined-Contribution plans in a different manner.

For DB plans, the impact of sharp decline in yields on the current level of retirement income will not be great. However, from the long-term perspective, the drop will not only worsen their financial ability to pay, but it will also widen the "financing gap" (referring to the pension debt is greater than the pension assets) because of the declining long-term interest rates led by the financial crisis.

For DC plans, the pension income depends directly on the market value of individual account assets. Therefore, for younger people, even if the asset value has shrunk dramatically, the situation will not be so sticky because it's very possible that markets will fully recover by the time that they retire. However, the situation for workers close to retirement age is different. If they are about to retire, the account balance needs to be converted into an annuity, and then the drastic shrinkage of value of assets means that they will face a permanent loss in their pension income.

#### **4.3 Problems of the Pension System**

#### 4.3.1 Low CPP/QPP benefits

Given the fact that today's retirees in Canada have an average annual income of \$30,000, and almost 50% comes from RPPs and personal investments, especially for those people in middle and high income groups, their post-retirement standards rely heavily on pillar 3 income sources. The first pillar only provides basic coverage and a little income for living. There is still a big proportion of the population who don't have an RPP or RRSPs.

With a public plan such as the CPP, it is possible to plan for average, rather

than individual, life expectancy. As well, the cost of running a large fund like the CPP at 0.16 per cent of assets annually is a fraction of the 2 per cent or so charged by most mutual fund companies. (The Globe and Mail, 2009)

However, this powerful tool hasn't become a reliable solution because of its low benefits. The current CPP premium is only 9.9% with the maximum pensionable earnings of \$46,000.

#### 4.3.2 Regulatory burden on RPP and RRSP

Employer sponsored plans are provided voluntarily by employers. In an employer's opinion, offering RPPs is also a good method of keeping and attracting skilled labour. However, the rising costs and mounting risks, along with increasing regulatory burden, are making employer sponsorship of pension plans far less attractive (Hansen, 2010). Nowadays, these employer sponsored plans are regulated to improve and secure the benefits of employees, and the employers are carrying more and more obligations. These factors all deter employers from participating in the voluntary plans. As I have mentioned in the previous chapter, the coverage of RPP has been declining for several decades. The regulatory burden is one of the most important reasons for this decline.

For the RRSP, the burden is less obvious. The high costs associated with retail investing have impacted the capacity for these plans to accumulate sufficient savings over time (Ambachtsheer and Bauer, 2007).

#### 4.3.3 Inequality of the pension system

The implementation of the first two pillars of the pension system is enforced

by the government, so there are no differences between public sector employees and private employees. The main problem lies in the third pillar - employer sponsored plan (RPPs). Since RPPs are an employer's voluntary choice, there are big differences between the public sector and private sector employers. All public sector employees in Canada are enjoying an RPP provided by the Government. Fees are paid by the tax-payers in the economy. However, most Canadian small and medium enterprises and private units generally do not have the financial strength to purchase RPPs for their employees. In addition, most of the RPPs are Defined-Benefits pension plans. As we all know, the DB plans ensure that retirees can receive a fixed monthly pension; but in this kind of plans, the monthly payment will be not fixed, which causes a big financial risk to the employers who pay into these plans. Therefore, the employers of private sectors are more reluctant to purchase a pension plan for their employees. In this case, there will be an inequality of pension coverage between public and private sector employees.

Today, 67% of the Canadian labour force and three in four private sector employees are not covered by an occupational pension plan (Hansen, 2010).

## 4.3.4 Shifting from DB to DC Plans

With the mounting risks to DB sponsors, a lot of firms have shifted from DB plans to DC plans. From an employee's point of view, this is not a good orientation. "They're increasingly angry at their employers for moving them from relatively risk-free Defined-Benefit pension plans into more volatile and market-exposed Defined-Contribution plans, and that has left them feeling ill-prepared for retirement (CB

Online, 2007)", says the financial adviser Karen Hall at T. E. Financial Consultants Ltd. in Calgary.

However, are DB plans so well designed to overcome most of the problems? The answer is, not always. There are many downsides to this kind of plans. For example, workers with a high degree of mobility will do not do well in DB plans because vesting provisions usually delay plan participation. Lack of portability is another problem. DB plans are also complicated and expensive for employers to administer (Ambachtsheer, 2009).

DB plans appear to suffer from contractual flaws as well. If the pension fund has a surplus or a deficit, how to distribute the surplus/deficit is unclear. Typically, all stakeholder groups attempt to pass the burden to somebody else and only enjoy the benefits. There is also a risk of mismatch between contributors of material asset and liability subjected to DB members. The disclosure of risk in public section is serious: "Their true cost of employee pension promises today can exceed 30 percent of current pay" (Ambachtsheer, 2009). In private sector, the reassessment of risk-return leads to an overall decrease in employer-sponsored pensions or to a shift from DB to DC plans.

# **Chapter 5: Calling for Reform and Overcoming the Problems**

Four provinces (Alberta, British Columbia, Ontario and Nova Scotia) and the federal government have undertaken significant pension reviews over the last two years (Hansen, 2010). Many organizations' experts in pensions also responded to the calls and came up with various proposals for the reform.

The Ontario government was the first to take action. In November 2008, it released a report of recommendations by the Ontario Expert Commission on Pensions (OECP) for the current pension system. Just one week after the release of the OECP report, the Alberta/British Columbia Joint Expert Panel on Pension Standards (JEPPS) also showed its attentions on pension standards by releasing its report "Getting Our Acts Together" (Hansen, 2010). In January 2009, Nova Scotia's Pension Review Panel joined the reform calling group.

In my opinion, the reform basically has two approaches: one is to improve and the other is to innovate. The pension reviews of those provinces seemed to be more focused on innovation, but it's necessary to explain both approaches in today's circumstances.

#### 5.1 What Can We Do with the Current Pension System?

Considering the problem in terms of the weaknesses identified in both pillars 2 and 3, we need to suit the remedy to the case. However, the radical problems are the existing legal rules and regulations, and the fundamental problems encountered in the current pension designs, especially DB plans. In order to solve the current

pension predicament, we have to start from these two aspects.

### 5.1.1 Solutions to Pension Rules and Regulations Problems

Ambachtsheer (2009) outlines a "to do" list prepared by Gunderson and Wilson (2009) for overcoming obstacles for implementation of choice architecture. The main points are as follows:

- 1) Remove restrictions from participation of private sector workers into the large-scale, pooled arrangements which only served public sector workers;
- 2) Allow workers to participate in pension plans sponsored by third party employers for cost effectiveness;
- Eliminate complexities of current legislation and regulations which restrict employers from exercising flexibility in sponsoring and contributing to a variety of pension arrangements;
- Harmonize pension legislations and regulations across the country (Van Riesen, 2009);
- 5) Relax quantitative investment restrictions;
- 6) Update tax rules to encourage saving for retirement;
- Deal with the treatment inequities between private-sector and public-sector workers; and
- 8) Change the 10 percent overfunding cap in DB plans which hampers prudent risk-management practices (Banerjee and Robson, 2008).

By fixing the pension rules and regulations problems, the implementation of our pension plans will be more powerful and it will also increase the beneficial population significantly. However, a change in legal issues is not enough to saving our existing pension system. Rules and regulations only give us an improved background, and we still need the advanced "tools" such as better pension design to accompany the improvements in rules and regulations.

#### 5.1.2 Fixing DB Plans

Of the 5.7 million workers in RPP, 4.5 millions are in Defined-Benefit pension plans. Although the number of people in this type of plan has continued to shrink in recent years, the DB plan still plays an important role in Canada's retirement income system. DB plans have a lot of advantages such as that they partially solve human frailty related to savings and investing. However, it is problematic with respect to surpluses and deficits, funding and costs, and disclosure. The DB plans have another fundamental problem which is that they are misused to generate profit. With the premise that surpluses don't have to redistributed, employers and plan trustees expose DB balance sheets in the hope of earning a risk premium on pension assets.

If we want to use a DB plan to achieve a better pension outcome, then we need to redesign the plan to overcome those problems. Firstly, full disclosure about the economic cost of pension promises being earned and the economic value of the balance sheets should be required. Secondly, solvency requirements of DB balance sheets should be treated similarly to the balance sheets of insurance companies. This kind of balance sheet management has two implications: 1) either assets should match liabilities in terms of duration and inflation sensitivity, or 2) if there is risk-

taking behavior, then balance sheets should have a risk-capital cushion proportional to the degree of mismatch risk.

Changing from old to new is not always easy, but reforming the pension system is imperative. After a brief review of the improving part, let's take a look at the innovative strategies.

#### **5.2** The Three Proposals

The future retirement income security of Canadians is of concern. Hence different groups have come out with different proposals for pension reform. Mainly there are 3 possible suggestions for a nationwide pension plan reform.

#### 5.2.1 Financial Services Industry Proposal

This proposal has various forms which were made by Canada's insurance and mutual fund industries. It suggests a private-sector solution to the pension-coverage problem that focuses on individual choice and maximum flexibility (Ambachtsheer, 2009). The outdated and complex pension laws and regulations are the key problems in this proposal. Those industries clearly articulate the current sorry state of the economy and this is also its biggest strength. Since this proposal's focal point is not the same as the following two and it also hasn't come out a specific plan, I will exclude it from the comparison of pension plans provided below.

#### 5.2.2 Vertical Expansion of the CPP (VEC)

This VEC is a mandatory plan which is an expansion of our existing CPP. It would aim to help candidates achieve a 70 percent (inflation indexed) income

replacement rate by increasing contributions and/or the income threshold subject to contributions. Under this proposal, the current contribution rate of 9.9 percent for the lower income levels would be doubled to 19.8 percent up to the current maximum of pensionable earnings (\$46,000 in 2009). And for those incomes between the current maximum pensionable earnings and the tax-deferral limit (\$116,667 in2009), their new contribution rate would be increased to 15.4 percent.

#### 5.2.3 Canada Supplementary Pension Plan (CSPP)

This is just like a "tie" in the Defined-Contribution type plan added to the CPP "suit". All Canadian workers (including the self-employed) who are not covered by an occupational pension plan would be auto-enrolled in it, with an option to opt out. CSPP contributions should be set so that the post-work income replacement rate would reach about 60 to 70 percent for all working Canadians. The automatic default CSPP contribution rate would be 10% and it would adjust to different income levels. CSPP also offers a number of annuitization options. Participants contribute to their personal pension accounts with an automatic partial annuitization between ages 45 and 65. Contributions are collected using the same mechanism used to deduct CPP/QPP contributions (Ambachtsheer, 2009). Government would not be the CSPP "sponsor", but the agency which operates the plan should be at arm's length from government.

### **5.3** CSPP vs. VEC – A Comparative Analysis

In order to develop an optimal solution for the pension system of Canada, we

need to compare and contrast the two most popular proposals. A lot of the key characteristics of the two plans are very different, but they may not conflict. We should examine them specifically with respect to their ability to address the problems of the current plan. Sometimes, drawing the strong points of one to offset the other's weakness and make it a mixed plan will lead us to a better choice. Now, let's look at the two proposals in the following different perspectives.

#### 5.3.1 Efficiencies of Scale

The scale of plans always has a sharp impact on the costs of management. Large scale can significantly reduce costs by dividing the total fixed costs into units. Between the VEC and CSPP proposals, the former undoubtedly achieves a larger scale which has the existing CPP to achieve economies of scale. For the CSPP, we consider it as a "tie" added to the CPP "suit", so it is also sufficiently large to benefit from economies of scale.

Since CSPP is a voluntary plan, the scale may shrink with potential employees choosing to opt out. Therefore, the mandatory VEC is a little better in achieving economies of scale, but the difference might be marginal in practice.

To solve the problem in high cost of administration and investment management, both proposals emphasize low operating costs. The CSPP proposal suggests that in an efficient DC pension plan, MERs should not exceed 0.5% of assets under management (and could be as low as 0.3%). Evidence from around the world confirms that this level of MERs is achievable in an efficiently-managed DC plan (Hansen, 2010). The VEC proposal also shows low unit cost which was 1.10% of

annual assets in 2008 and 2009, and it anticipates decreasing administration costs with the CPP funds growing. Due to the problem of inequality between private and public sectors, those people in the private sector not provided with an occupational pension plan are a major reason for the diseconomies of scale in small and private firms. Both proposals seem to solve the problem either in a voluntary or mandatory fashion.

### 5.3.2 Voluntary vs. Mandatory

While participation level is important, is a mandatory plan the optimal choice for our new pension system? The answer is uncertain. Obviously, the mandatory VEC is more radical and will solve the pension coverage problem. It will also help to eliminate the solvency risks in the DB plans of financially weak corporations. The human frailty in determining the savings and investment will also be solved since the contribution rate is mandated and calculated by skilled experts. By doubling the contribution rate, it may replace the entire voluntary sector including the RRSPs, because people will not have so much income to contribute to their savings. We have seen that the RRSPs contribution rate has been quite low and has remained in a decreasing trend in recent years. However, the voluntary savings still has a lot of good attributes. For example, well-organized people will use it as a tax-reducing channel. Nevertheless, the VEC proposal may wipe out the good elements of the voluntary component of the retirement income system along with the bad (Ambachtsheer, 2009).

When we consider the primary target group of this pension reform, it's important that the preferred solution should focus on supporting the most vulnerable group. By looking at the table below, we can see that the Canada replacement rate

for those in the low income group in 2009 was over 75%, ranked 13 in Organization for Economic Co-operation and Development (OECD) countries. Based on the evidence that Canadians in the lower income group have already reached a relatively high post-retirement income replacement rate, we don't want them to over-save. If they do, the reform will have an adverse effect on them. However, the replacement rates for middle and high income people have been quite low, only 44.5% and 29.7% respectively. This level is far away from our goal, so it is more urgent for them to join in this pension reform.

Table 6: Gross Replacement Rates (RR) Provided by Pillars 1 and 2, Canada and OECD Comparators

	0.5 x Average	1.0 x Average	1.5 x Average	
	Wage [\$23,150]	Wage [\$46,300]	Wage [\$69,450]	
Canada RR	76.5	44.5	29.7	
Canada Rank	13	20	26	
OECD Average RR	71.9	59.0	54.3	
OECD Highest RR	124.0	95.7	95.7	
OECD Lowest RR	43	30.8	21.3	

(Source: Hansen, 2010, Based on OECD 2009)

We are clear that our target group should be those in middle and higher income groups and those working in private sectors with no occupational pensions. Under these terms, the CSPP would perform better. The CSPP focuses on the identified target group – those earning from \$30,000 to \$100,000. It also contemplates additional voluntary contributions from higher income earners (Hansen, 2010).

There is another good point worth mentioning about the CSPP's voluntary plan. The CSPP proposal uses the automatic enrollment method with a choice to opt out. CSPP sets participants' default choice as being in the plan, and research indicates that there will be a default decision effect that results from this choice. As long as the resulting default decisions make sense and are trusted, most people would be happy to stay with the program and not switch out. Therefore, the plan is under-examined and could still make a difference in participation if it works well.

#### 5.3.3 Contributions and Benefits

Middle-income individuals rely heavily on occupational plans and RRSPs due to low replacement rates of public pension plans (CPP/QPP), so the new plan should come up with a solution dealing with this group. We know that the benefits are basically determined by the contributions and the investing management. Now let's compare the two proposals' contribution rate and investment choice.

The VEC allows 3 variations in benefit levels. From the table below, we can see that the current contribution rate of CPP is 9.9% (4.95% from employers and 4.95% from employees). Variation 1 will increase the contribution by 3% for both employer and employee on earnings up to \$46,300, and by 6% on earnings between \$46,300 and \$92,600. Variation 2 and 3 will not change the contribution rate for those with income below \$46,300, but will increase by 3% on earnings between \$46,300 and the new maximum pensionable incomes (YMPE). The difference in Variation 2 and 3 is that the YMPE for Variation 2 is \$92,600 while for Variation 3 it is \$69,450. In this way, the maximum pension payable (monthly) would increase by \$2,726.25, \$908.75

and \$454.38 respectively for Variation 1, 2 and 3 from the current monthly benefits of \$908.75.

Table 7: CPP Expansion – Comparison of Current CPP with Three Variations

	Current CPP	Variation 1	Variation 2	Variation 3
YMPE	\$46,300	\$92,600	\$92,600	\$69,450
Maximum pension as a percent of career pensionable earnings	25%	50%	25%	25%
Maximum pension payable (monthly)	\$908.75	\$3,635.00	\$1817.50	\$1363.13
Employee/employer contribution rate to \$46,300	4.95%/4.95 %	7.95%/7.95 %	4.95%/4.95 %	4.95%/4.95 %
Employee/employer contribution rate from \$46,301 to new YMPE	0.0%/0.0%	6.0%/6.0%	3.0%/3.0%	3.0%/3.0%

(Source: Colin Hansen, 2010)

Compared with the complex 3 variations of VEC, the minimum contributions level of CSPP is simply 10% of earnings (5% from the employee and 5% from the employer), and the self-employed will contribute for both portions. The proposal also indicated that there can be voluntary contributions added on the minimum level. Since the CSPP is added on the CPP, there is a net increase of the contribution rate.

By increasing the contributions, people are encouraged or forced to save more and prepare better for their retirements. In particular, the benefits will rely on the investment management. For the investment choices, I do think this is an important part because under the economic crisis, the diversification of investment portfolios would help a lot in diversifying risks and reducing losses. However, both proposals show little or no investment choice for members. The CSPP proposal argues that

providing too many choices will increase the administration costs, so it only provides low, medium, or high risk portfolios for their members to choose from.

#### 5.3.4 Defined-Contribution vs. Defined-Benefit

Recall that in Chapter 4 I mentioned that the recent trend of shifting from DB to DC plans has become a problem in the current pension system. Both types of plan have their pros and cons. The debate on DB plans versus DC plans has gone on for many decades. From an employee's perspective, DB is better because it can provide genuine retirement security. On the other hand, employers always prefer DC since they don't want risks in paying contributions for their employees. Whether DB or DC is better is not absolutely clear, and it should depend on many factors.

The CSPP follows a DC model, but it has a big advantage which is usually associated with healthy DB plans – CSPP helps to maximize benefits. Members of the traditional DC plans are concerned about the investment, longevity and timing risks, while the CSPP proposal offers a number of annuitization options. One option is that at age 45, an "autopilot" deferred annuity purchase mechanism is initiated for each CSPP participant, with a target of annuitizing 50 percent of accumulated participant assets at age 65 (Ambachtsheer, 2008). This would help participants to reduce their longevity risk by locking in values of pension assets at various points in time.

The VEC proposal adopts the current nature of CPP, being a DB plan. On one hand it will reduce the uncertainty of the post-retirement life. On the other hand, the risk pressure along with investment becomes heavier. This plan seems to eliminate all the small and fuzzy contracting problems, but under the skin it just groups them

together which may create bigger uncertainty. If the investment of funding performs below expectations for a considerable period of time, the whole population will be affected. Therefore, under this plan, investment management is really important.

### 5.3.5 Consensus

Both models would be expected to increase contributors' pension coverage and savings. The VEC plan has some strength in economies of scale, but a mandatory type of plan might not be so good for everyone concerned. Nevertheless, the contributions and benefits are lifted under both proposals. Whether Defined-Benefit or Defined-Contribution, the plan should be under expert investment management and well designed, absorbing the advantages and avoiding the disadvantages as much as possible. Therefore, a blend of the two models can achieve the optimal solution.

# Chapter 6: Nova Scotia's Situation and Response

Nova Scotia (NS) is the place where we live, so the pension status of our province is of special interest in this thesis. When we review the earlier chapters, a series of questions will naturally emerge in our minds: What is the situation in Nova Scotia? Are those issues mentioned above also found in our province? How would Nova Scotians respond to this pension reform? Now let's take a closer look at Nova Scotia's situation and response.

# 6.1 Background

According to Statistics Canada, in June 2009, the total population in NS was 939,475. Of the total labour force 452,800, only 40.9% of employed workers have pension plans. Though compared to the national average of 38.3%, the proportion of employed workers is a little bit higher, it is still down from approximately 45.4% in 1996. Recent sharp increases in liabilities for Defined-Benefit plans due to improved longevity, reduced interest rates, and reduced assets due to investment performance have emphasized both the magnitude and the volatility of the cost to employers (Pink, Crawford & Black, 2009). The majority (about 60%) of our workers are not contributing to pension plans.<sup>2</sup> This group of workers, along with the unemployed people will not have adequate retirement savings since they can only rely on the government retirement income and their personal savings.

<sup>&</sup>lt;sup>2</sup> This includes self-employed workers, since in most cases they will not participate in an occupational pension plan because they would be responsible for the whole contribution if they did.

In April 2008, there were 498 pension plans regulated by Nova Scotia. Of these plans, only 177 were active Defined-Benefit plans: 19 were public plans, 145 were private, and 13 (8%) of active DB plans are not admitting new members to the plan. Just like the other provinces in Canada, the number of DB plans in NS is declining. From the table below, we can see that in 1996, there were 837 DB plans in NS; in 2001, the number dropped to 784; and it decreased further to 642 in 2006. I couldn't find any examples of new Defined-Benefit plans in the past 10 years (Black, 2009). New employees are placed in DC or group RRSP plans. By contrast, when I look at the members of the two types of plans in the table, the number of DB contributors has decreased from 132,509 in 1996 to 130,097 in 2006 while the members of DC has increased significantly from 21,769 to 35,963 for the same time period. This shifting from DB to DC is designed to save costs, but the existing DC plans are obviously not mature enough to cover those loopholes in our pension system.

In Nova Scotia, a large segment of the workforce who contribute to pension plans are covered by municipal, provincial, federal, military, teachers, university or other publicly funded plans (Pink, Crawford & Black, 2009). According to statistics (More, 2010), in March 2009, among the 170,651 employed workers with pensions, 97,048 were public sector employees; 73,603 were private sector employees. The inequality problem of public and private workers also occurred in Nova Scotia.

Table 8: Pension Plan Contribution Rates, Amounts (\$) and Membership for Nova Scotia and Canada

	1996		2001		2006	
	NS	Canada	NS	Canada	NS	Canada
Employed	376,900	-	415,200	14,946,200	441,800	16,484,300
RRSPs/GRRSPs # of contributors	143,950	5,998,430	139,190	6,241,050	132,590	6,196,050
Total Contributions (\$)	615,298,000	26,381,304,000	574,546,000	24,438,914,000	634,234,000	32,350,792,000
Defined Benefit # of members	132,509	4,453,907	132,236	4,534,941	130,097	4,590,805
Total contributions(\$)	132,985,135	18,055,895,842	134,854,561	17,798,008, 709	283,640,740	38,237,700,000
# of plans	837	6,901	784	6,289	642	11,056
Total Public plan membership	82,308	2,301,478	82,887	2,361,626	87,014	2,550, 813
Total Private plan membership	50,201	2,152,429	49,349	2,173,315	43,083	2,039,992
Defined Contribution # of members	21,769	574,769	29,389	796,088	35,963	899,540
Total Contributions(\$)	40,994,489	1,288,544,305	72,090,258	2,057,790,641	120,253,548	3,163,380,000
# of plans	671	8,103	732	7,310	720	7,160
Total Public plan membership	5114	99,729	6,013	132,629	6,986	132,124
Total Private plan membership	16,655	475,040	23,376	663,459	28,977	767,416

(Source: Statistics Canada: Pension Plans in Canada, 2006)

As I have mentioned in Chapter 4, a number of social changes have occurred during recent years. Those issues (Demographics, Economic crisis, and Administration) are also gaining attention in Nova Scotia. Generally, with the aging population, the youth population is decreasing. In 2007, approximately 17% of people in the NS workforce were over 55, as compared to approximately 10% in 1997 (Pink, Crawford & Black, 2009). Employers are trying to encourage their elder (experienced) workers to stay on the job longer. Along with the increased pressure of payments on pension programs, seniors in NS are also facing problems regarding the payment deferral. A lot of them have to postpone their retirements. Labour force participation rates of those aged 65-69 have more than doubled in Atlantic Canada since 2001, from 6.8% in 2001 to 15.6% in 2008 (More, 2010). The federal government has passed legislation allowing phased retirement for federally regulated employees, and

the mandatory retirement age of 65 ended in Nova Scotia in July 2009, allowing Nova Scotians to continue working if they choose. The introduction of phased retirement is a major development which will be discussed in section 6.2.4.

## 6.2 Nova Scotia's Response and the Pension Review Panel

Nova Scotians have taken some actions to help reform the pension system. In the spring of 2008, the Nova Scotia government established the Pension Review Panel. The panel was comprised of Bill Black, former president and chief executive officer of Maritime Life; labour lawyer Ron Pink; and Dick Crawford, former president of the Canadian Institute of Actuaries. These three distinguished individuals brought decades of experience in the world of pensions and financial planning to the table. The Panel was tasked with making recommendations for potential changes to Nova Scotia's pension legislation. They issued an interim report in October 2008 and a final report in January 2009. In those reports, they recommended a province-wide pension plan. We'll take a look at the key points of the Pension Review Panel's strategies.

## 6.2.1 Recommendation on Pension Legislation

The review panel conducted the first comprehensive review of the provincial Pension Benefits Act in 10 years. The act covers all workplace pension plans except for legislated public service pension plans for government employees, teachers, judges, MLAs, former Sydney Steel Corp. employees and plans covering workers under federal jurisdiction. Though the process of amending rules is long and

complex, the goals of pension legislation are clear. The review panel provided four goals as the context for their recommendations and any resulting legislative and regulatory change. Those goals are:

- To maximize the likelihood that pension promises are met by;
- To ensure that employees have appropriate access to information about their individual benefits;
- To provide transparency of information about all aspects of pension plans to members; and
- To promote and facilitate the implementation and continuation of pension plans.

The following factors are to be avoided in the reform of pension legislation:

- Establishing minimal acceptable levels of benefit;
- Enforcing equity between plan members (beyond that already applicable to other forms of compensation);
- Favoring one form of pension over others;
- Preventing new forms of pensions from being developed;
- Increasing regulatory burden either quantitatively or qualitatively; and
- Discouraging the establishment or continuation of pension plans by unnecessary regulatory burden.

As a result of these goals, the panel came up with various changes relating to the pension type, funding, investing, and governance and member issues. Furthermore, the Minister of Labour and Workforce Development agreed to amend the Act by adding a purpose clause to this suggestion (More, 2010).

## 6.2.2 Types of Plans and Sources of Funding

When we talk about the plan types, the first ones that come to our minds are Defined-Benefit and Defined-Contribution plans. The Panel's report confirmed the stability benefits of DB plans for employees. They also pointed out that if we make sponsors bear the investment risk, the DC plans will have the big advantage of portability.

Beside the pure DB or DC plans, the panel recommended that Jointly Sponsored Plans should be recognized and eligible as a distinct type of plan in the Provincial Benefits Act and its regulations. The objective is to improve coverage and retirement income savings for Nova Scotians. The Jointly Sponsored Plans have the following properties (Pink, Crawford & Black, 2009):

- Active members in Jointly Sponsored plans participate with the employer(s)
   in establishing contribution levels that will keep the plan properly funded.
- Contributions are also shared with the employer(s) paying at least 50% of the
  total contributions. The joint governance structure of JSPPs allows future
  contributions and benefit accruals to be rebalanced as required by the level of
  funding of the plan.
- In these plans surpluses will only be used for either contribution holidays or for improving benefits.

Furthermore, the panel recommended that Target Benefit Plans be another form of pension plan available under the Act. The format generally includes Defined-Contribution funding with a particular level of benefit being targeted (Pink, Crawford & Black, 2009). They emphasize that the Legislation and Regulations should be flexible permitting new plan designs and funding methods. Those recommendations are also agreed to in the response paper.

#### 6.2.3 Minimum Funding Requirements and Partial Wind-up Rules

To ensure the health of pension plans, the Panel recommended minimum funding should apply equally to all plans. They pointed out that the current solvency amortization period in Canada should be extended from five years to a maximum of ten years. A collar of 5% should be used as an attempt to provide an incentive to employers to continue to pay into the plan with less risk of loss and should be supported as an incentive to achieve full funding. If a plan is in deficit of 5% or less, then the plan may make payments towards the deficit, but is not required to do so. Any deficits over the 5% collar must be amortized.

It is also recommended and agreed by the Policy and Planning Division that partial windups be eliminated from the legislation altogether. A "partial wind up" occurs when part of a pension plan ceases to exist while the remainder of the plan continues (Financial Services Commission of Ontario, 2005). Usually, the employment of the members of the partial wind up group is terminated. In contrast, a full wind up occurs when the entire plan is terminated. The employees should be able to take the commuted value with them. If the withdrawal occurs while the plan

is in deficit, the sponsor will be responsible for making up the deficit that was associated with the departing employee. In this way, the administrative cost burden for partial wind-ups will also be eliminated.

#### 6.2.4 Phased Retirement

In 2007, the federal government made changes to the federal income tax rules that allow workers to continue working, continue to accumulate pension benefits and receive part of their pensions at the same time (Pink, Crawford & Black, 2009). We know that Canada is facing serious demographic problems. The baby-boomers are moving to retirement, and the youth generation is declining. With increased demand in labour force, it's to an employer's advantage to keep skilled senior workers to stay longer. The introduction of phased retirement encourages older workers to continue working on a part time basis, before retiring from the work force completely. On the other hand, after experiencing the 2008 economic crisis, the people who suffered the most were those baby boomers in their 50s and 60s who were not in employer-sponsored Defined-Benefit plans. Due to the big losses in pension funds, many people's decent retirement plans become infeasible. In this situation, the phased retirement undoubtedly gave them a way to ease their plight.

The report recommended that legislation should permit but not require phased retirement, and should not prevent the accumulation of new benefits while receiving a pension. "This means that members could continue working at the same or a different job with their employer and accrue additional benefits while receiving part or their entire pension," said the Panel. There should be appropriate actuarial adjustments

where needed to recognize the receipt of deferred and additional pension benefits (National Union, 2008). The Government has passed since this recommendation and is working on regulations to implement the legislation (More, 2010).

#### **6.3** A Province Wide Plan

In this section, I will briefly talk about the Province Wide Plan which is also one of the Panel's recommendations. This plan is listed separately because it is a complete and powerful pension reform option just like the Canada Supplementary Pension Plan and Vertical Expansion of the CPP, and it is created in Nova Scotia. The Province Wide Plan, just like CSPP, is a voluntary pension plan. It offers two types of plans which are Defined-Contribution and Target Benefit (TB). Target Benefit plans may not be as familiar as DB and DC plans. The format of TB plan generally includes Defined-Contribution funding with a particular level of benefit being targeted. The objective of this combination of these two types of plans would be to make it easier for employers and employees to participate in an occupational pension plan and to improve retirement security for individuals.

The province wide plan will be available to all employers and employees in the province, and administered by an independent agency, not the provincial government. The provincial agency would be responsible for the pooling of administration and investments, but would not be responsible for the funding risks, nor for any costs to administration or investment management (Black, 2008).

A lot of workers in NS are part-time workers, and the younger generations are considering changing their jobs in the future. Those people will have less opportunity

or interest in contributing to the pension plans. In order to accommodate the individuals whose jobs are not continuous, the Panel recommends that the province wide plan allow individuals to transfer the commuted value of their pensions to the new province wide plan. In this way, those people will be more likely to purchase a pension for their retirements and the pension coverage rate will increase.

Under the province wide plan, the costs and risks associated with traditional pension plans are reduced. For the costs, since the province wide plan is a large plan with participants from both public and private sectors workers (including the self-employed), the scale effect also works. For the funding risks, the new province wide plan will be more open to contributors. Under the supervision of the public, the funding investment and management must be more careful and the risks shall be reduced.

The recommendation of the province wide plan will make participation easier. In this case, pension coverage will increase and the retirement security for individuals will be improved. The Labour & Workforce Department agrees that a province-wide plan is desirable. However, a national plan may be a better option for a small province like NS (More, 2010). The Government of NS is making an effort with other provinces and the Federal Government to try to find a best solution for Nova Scotians. If this plan proposal is accepted by the other communities, it would also be a good pension plan for all Canadians.

# **Chapter 7: Conclusion**

The Canadian pension system is complex, and the complexity of the system reflects the wide range of stakeholders: employers, retirees, employees, labour unions, financial institutions and the government. Their respective views about the solutions are conflicting in nature. After witnessing flaws and problems associated with the existing pension system, there is no doubt that this pension system needs to be reformed. However, no system can fully satisfy all stakeholders, so the reform of the pension system will be prudent and decisions should be made upon various choices. Although different communities have come up with several good reform plans, these plans still have their own shortcomings and uncertainties following with their advantages, and the government still has not decided which proposal(s) to implement.

The implementation of a new pension plan is hard, and the transition from old to new is painful and will also take a long time (at least 10 years in most cases). However, due to the impact of the aging population on the labour market and the economy, this reform is urgent. Pension plans are closely related with the well-being of all Canadians. This reform should not only attract the attention of government and related communities, but also the whole population.

## **References:**

Ambachtsheer, K. & Bauer, R. 2007. "Losing Ground: Do Canadian Mutual Funds Produce Fair Value for Their Customers?" Canadian Investment Review.

Ambachtsheer, K. 2008. "The Canada Supplementary Pension Plan (CSPP), Towards an Adequate, Affordable Pension for All Canadians". C.D. Howe Institute. Available at <a href="http://www.cdhowe.org/pdf/commentary\_265.pdf">http://www.cdhowe.org/pdf/commentary\_265.pdf</a>.

Ambachtsheer, K. 2009. "Pension Reform: How Canada Can Lead the World". C.D. Howe Institute. Available at

http://www.investmentreview.com/archives/2007/spring/spring2007losing%20groun d.html.

Banerjee, R. & Robson, W. 2008. "Lifting the Lid on Pension Funding: Why Income-Tax-Act Limits on Contributions Should Rise." C.D. Howe Institute. Available at www.cdhowe.org/pdf/ebrief 56.pdf.

Benjamin, D., Gunderson, M., Lemieus, T., & Riddell, C. W. 2007. "Labour Market Economics". Canada: McGraw-Hill Ryerson.

Canada Revenue Agency. 2010. "Registered Retirement Savings Plan (RRSP)". Available at <a href="http://www.cra-arc.gc.ca/tx/ndvdls/tpcs/rrsp-reer/rrsps-eng.html">http://www.cra-arc.gc.ca/tx/ndvdls/tpcs/rrsp-reer/rrsps-eng.html</a>.

CB Online (Sanford, H.). 2007. "DB versus DC: Pension crisis". Available at <a href="http://www.canadianbusiness.com/markets/stocks/article.jsp?content=20070709\_160">http://www.canadianbusiness.com/markets/stocks/article.jsp?content=20070709\_160</a>

Financial Post (Mazurkewich, K.). 2009. "Caisse takes a 25% haircut in total assets". Available at http://www.financialpost.com/scripts/story.html?id=1327880.

Financial Services Commission of Ontario. 2005. "Partial Wind Up/Monsanto Qs and As for Affected Individuals". Available at <a href="http://www.fsco.gov.on.ca/english/pensions/monsanto/windup-individuals.asp">http://www.fsco.gov.on.ca/english/pensions/monsanto/windup-individuals.asp</a>.

Hansen, C. 2010. "Options for Increasing Pension Coverage among Private Sector Workers in Canada". Steering Committee of Ministers on Pension Coverage and Retirement Income Adequacy.

HSBC Insurance Holdings Ltd. (Mark, T.). 2009. "The Future of Retirement: It's Time to Prepare – Canada Factsheet." London, England. Available at <a href="http://www.hsbc.com/1/2/retirement/future-of-retirement">http://www.hsbc.com/1/2/retirement/future-of-retirement</a>.

Meighen, M. A, & Hervieux-Payette, C. 2010. "Canadians Saving for Their Future: A Secure Retirement". The Standing Senate Committee on Banking, Trade and Commerce.

Mercer. 2010. "Melbourne Mercer Global Pension Index". Available at <a href="http://www.mercer.com/referencecontent.htm?idContent=1359260">http://www.mercer.com/referencecontent.htm?idContent=1359260</a>.

More, M. 2010. "Discussion Paper On Pensions". Policy and Planning Division, Department of Labour & Workforce Development.

Morissette, R. & Drolet, M. 2001. "Pension Coverage and Retirement Savings". Statistics Canada.

National Union. 2008. "Nova Scotia review panel calling for new province-wide pension plan". Available at <a href="http://www.nupge.ca/news\_2008/n23oc08b.htm">http://www.nupge.ca/news\_2008/n23oc08b.htm</a>.

OSFI. 2003. "The 21st Actuarial Report on the Canada Pension Plan". Available at <a href="http://www.osfi-">http://www.osfi-</a>

bsif.gc.ca/app/DocRepository/1/eng/oca/reports/cpp/CPP2104noapp\_e.pdf

OTPP. 2010. "Fast Facts". Available at <a href="http://www.otpp.com/wps/wcm/connect/otpp\_en/Home/Investments/Fast+Facts/">http://www.otpp.com/wps/wcm/connect/otpp\_en/Home/Investments/Fast+Facts/</a>.

Pink, R., Crawford, D. & Black, B. 2009. "Promises to Keep". Pension Review Panel. Available at

http://www.gov.ns.ca/lwd/pensionreview/docs/PensionReviewPanelFinal.pdf.

Robson, J. 2010. "Are Today's Working Canadians Saving Enough for Tomorrow's Retirement?". Available at <a href="http://www.policyresearch.gc.ca/page.asp?pagenm=2010-0051">http://www.policyresearch.gc.ca/page.asp?pagenm=2010-0051</a>

Service Canada. 2011. "Canada Pension Plan (CPP)". Available at http://www.servicecanada.gc.ca/eng/isp/pub/factsheets/rates.shtml.

Service Canada. 2011. "Old Age Security Payment Rates". Available at http://www.servicecanada.gc.ca/eng/isp/oas/oasrates.shtml#note.

Statistics Canada. 2003. "Canada's Retirement Income Program, A Statistical Overview", 1990-2000 Catalogue 74-507

Tax Services. "RRSP Contribution Limit & RRSP Deduction Limit for the Year 2011". Available at <a href="http://www.tax-services.ca/rrsp-contribution-rrsp-deduction-limit-rrsp-deadline-2011/">http://www.tax-services.ca/rrsp-contribution-rrsp-deduction-limit-rrsp-deadline-2011/</a>.

TD Bank Financial Group. 2009. "How Are We Doing on Social Policy? Is the Recession Paralyzing or Transformative?" TD Economics Special Report.

The Globe and Mail (McNish, J.). 2009. "Retirement dreams under siege". Available at <a href="http://www.theglobeandmail.com/report-on-business/retirement/retirement-dreams-under-siege/article1327536/page4/">http://www.theglobeandmail.com/report-on-business/retirement/retirement-dreams-under-siege/article1327536/page4/</a>.

The Globe and Mail (Yakabuski, K.). 2009. "Canada's gathering pension storm". Available at <a href="http://www.theglobeandmail.com/report-on-business/retirement/canadas-gathering-pension-storm/article1323513/page3/">http://www.theglobeandmail.com/report-on-business/retirement/canadas-gathering-pension-storm/article1323513/page3/</a>.