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C.D. Howe Institute COMMENTARY

THE PENSION PAPERS

The Canada Supplementary Pension Plan (CSPP)

Towards an Adequate, Affordable Pension for *All* Canadians

Keith Ambachtsheer

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In this issue...

Canadians successfully reformed the Canada/Quebec Pension Plans in the 1990s. Now we must do the same for the rest of our Retirement Income System. This paper offers both a vision and a plan to provide a decent post-work standard of living for the millions of Canadian workers currently accumulating insufficient retirement savings.

The Author of This Issue

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The Study in Brief

"Even as Canadians seek to deal with the short-run problems of traditional DB plans then, they need to develop new models that offer attractive ways to pool resources and save for retirement, while mitigating not only financial risk and longevity risk, but agency risk as well."

David Laidler
William Robson

This *Commentary* is a logical sequel to last year's inaugural paper in the C.D. Howe Institute's Pension Paper Series. As cited above, Mssrs. Laidler and Robson issued a challenge for Canadians in *Ill-Defined Benefits: the Uncertain Present and Brighter Future of Employee Pensions in Canada.* I do indeed develop a new pension model for Canadians to think about the context and dynamics of generating adequate, affordable post-work income in the 21st century. The model has three critical elements:

1. A retirement savings accumulation/decumulation formula likely to generate adequate, affordable post-work lifetime payment streams.
2. Complete workforce coverage and job-to-job portability across Canada.
3. Pension delivery institutions that are transparent and cost-effective, and operate solely in the best interests of the people they are meant to serve.

The new pension model addresses two major shortcomings in workplace pension plans and individual retirement savings. First, an estimated 3.5 million Canadian workers are not members of a workplace pension plan, and are not accumulating sufficient retirement savings to maintain a decent post-work standard of living. The second shortcoming relates to the 5.5 million Canadian households who currently have their retirement assets invested in retail products with high sales and management costs, which make it difficult for many of these 5.5 million households to generate adequate pension income at affordable retirement saving rates.

To address these flaws, the paper offers the Canada Supplementary Pension Plan (CSPP) as a solution that is both theoretically sound, and practically feasible.

In an ideal world, Canadians should be able to provide for their needs for food, clothing, shelter and other goods and services equally well before, during and after their working lives. In the typical individual life cycle, this means getting an education, entering the workforce and earning income, buying a house and raising children, saving for retirement, and then drawing down those savings during retirement.

Current public policies help Canadians to shift resources from the working to non-working phases of their lives. For example, we spend public funds on education, and we sponsor public unemployment and disability insurance schemes. We also design public retirement income systems and income tax-deferment systems to help Canadians maintain a decent standard of living after they retire.

This section of the paper discusses what an ideal retirement income system should look like. Over the last few decades, applied economic theory, empirical research, and emerging global "best practices" have taught us much about what the characteristics of the ideal system are. Three features stand out:

1. Retirement saving/consumption formulas that provide a predictable, adequate standard of living over complete post-work life spans.
2. Full participation by all citizens in such pension arrangements.
3. Cost-effective pension delivery institutions that operate first and foremost in the interests of the people they are meant to serve.

To spread the load and diversify risks, responsibility for provision of retirement income is ideally shared between public and private actors in three 'Pillars'. In Canada, Pillar 1 is usually defined as the universal element operated by the state (i.e., GIS/OAS), funded through general tax revenues. Pillar 2 provides workplace-based pension coverage for all workers (i.e., CPP/QPP), funded through payroll deductions and investment reserve funds managed by the CPP Investment Board and by the Caisse de Dépôt et Placements du Québec. Pillar 3 – private retirement saving – are workplace pension plans (i.e., RPPs) and individual retirement saving plans (i.e., RRSPs). Pillar 3 arrangements supplement Pillar 1 and 2 schemes and ideally raise retirement income to adequate levels. A current adequacy rule of thumb is that Pillar 1 and 2 arrangements should replace 30-40 percent of working income at the national median wage. Pillar 3 arrangements should lift the total income replacement rate to a range between 50-70 percent with no ceiling.[1]

The 'Life-Cycle' Model of Consumption

Among the most important financial questions people face in their lifetimes are these three:

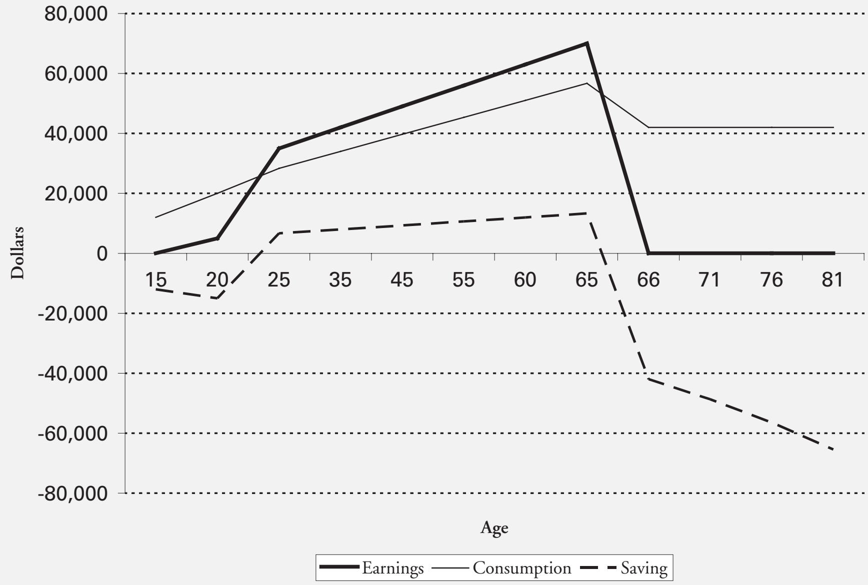
1. How much should I save for retirement?
2. What risks should I insure against?
3. How should I invest what I save?

Simple questions; complex answers. The life-cycle model of consumption provides a logical, structured way to address them while exposing the complexities that lurk behind. Conceptually, the model divides people's lives into three phases: youth, working/earning years, and retirement. Figure 1 shows the general idea, with real earnings, consumption, and saving rising during working years. At age 65, earnings cease, saving becomes dis-saving, and consumption continues.

Thanks to Keith Horner, Jean-Claude Ménard, and members of the C.D. Howe Institute Pension Papers Advisory Panel, particularly Malcolm Hamilton and James Pierlot, for reviewing drafts of this paper. Responsibility for remaining errors and omissions are the author's alone.

1 There is an ongoing debate about what the 'ideal' final earnings replacement rate is after retirement. We place it in the 50-70 percent range, depending on such factors as home ownership, other sources of income, and desired lifestyle.

Figure 1: A Typical Life-Cycle Income/Consumption Pattern in Real Terms



Source: Author's Calculations.

Key insights revealed by this simplified model are:[2]

- The focus of financial planning should be to smooth people's life-time standard of living, not merely to accumulate financial assets.
- Financial assets and instruments can be used to shift consumption from working to non-working life phases.
- Income should be saved when it exceeds the amount required to maintain sustainable living standards.
- People should be able to buy reasonably priced insurance against undesirable events such as ill-health, unemployment, inflation, and outliving retirement savings.
- Tolerance for risk varies with the individual and usually decreases with age – younger people have longer to recover from financial setbacks and have less financial capital at risk.

An ideal retirement income system is one in which life-cycle financial plans will, for the majority, be created, implemented and dynamically adjusted to respond to each of these insights – a highly complex business that is too complex for most people to execute well on their own. A growing body of behavioural finance research confirms that most of us aren't good at personal financial planning and demonstrate behaviour that is at times overconfident, hesitant, inconsistent, and even irrational.[3] We save too little or too late; we take on too much or too little investment risk; we choose investments poorly and fail to monitor their performance; we pay too much to have our investments managed; we fail to insure against high-probability events such as market corrections and outliving our savings.

The implication is that for most participants, an ideal retirement income system automates key life-cycle financial decisions, starting at the end of the cycle and working back to the front. So for example, a Pillar 3 pension plan might set a final earnings income replacement target of 60 percent including Pillar 1 and 2 benefits. The plan would make realistic assumptions about the length of the participant's prime earning years, return on

2 Life-cycle finance deals with work/leisure opportunities and consumer choice over the entire lifespan. See Bodie (2007) for a full exposition.

3 There is now a rich literature on 'behavioral finance' and its implications for pension plan design. See, for example, Thaler and Sunstein (2003), Mitchell and Utkus (2004), and the UK pension reform papers (2004) and (2005).

retirement savings, longevity, and then calculate the saving rate (e.g., 6 percent of pay) required to hit the 60 percent earnings replacement target. Reality checks along the life-cycle path test whether course adjustments (i.e. changes to contribution rates, investment policy, retirement date) are required. As the destination approaches, annuity contracts purchased along the way insure against investment volatility and longevity risk. An important caveat: while probably best for most, the "autopilot" formula may not be best for all. This means allowing those who don't want to be on the autopilot path to opt out.

As a concrete example of an autopilot mechanism, consider a Canadian two-person household with starting and projected final inflation-adjusted employment earnings of $35,000 and $65,000, respectively. So in this case, the target pension at age 65 is an inflation-indexed $39,000 (i.e., 60 percent of $65,000). Assume that $25,000 is projected to come from CPP/OAS, leaving $14,000 to be provided by a Pillar 3 pension plan. Under reasonable assumptions, this can be financed with a contribution rate of 6 percent of earnings over 40 years.[4] As noted above, reality checks along the life-cycle path test whether course corrections are required during the journey. Ideally, all Canadians travel on this type of financial life-cycle journey.

Cost-Effective Pension Delivery Institutions

Just as the life-cycle model of consumption suggests how we should design pension accumulation /decumulation formulas, so integrative investment theory suggests how we should design pension delivery institutions to implement them. With traditional investment theory as its foundation, this new theory recognizes the economic importance of incentives, agency issues, and governance quality.[5] Business philosopher Peter Drucker identified these three success elements over 30 years ago in his book on the political economy of pensions titled *The Unseen Revolution*. However, it is only recently that we have started to measure the actual costs of misaligned interests (i.e., agency costs) and of dysfunctional governance.

A recent study by Bauer et al. suggests that agency costs (mainly management and sales-related fees) relating to retirement savings, unless they are rigorously controlled, run as high as 2 to 4 percent of assets per annum. This was the measured net return out-performance of pension funds over retail mutual funds.[6] Separate studies by Ambachtsheer et al. suggest that even without agency costs, the cost of poor governance within pension delivery institutions can still amount to 1 to 2 percent of assets.[7] Scale is also important: investment returns in large-scale pension plans (e.g., in the $50B-100B range) exceed returns in small ones (e.g., under $100M) by an average 1 percent per annum, according to the CEM Benchmarking Inc. database.[8] These studies point to a material difference in the rate of saving required to achieve target retirement incomes, depending on whether funds are managed by arms-length, well-governed pension delivery organizations with scale and hence low unit operating costs, or whether they are channelled into retail products with much higher cost structures.[9]

To underscore this point, let us return to the example of a typical Canadian household that must finance a $14,000 indexed pension through a Pillar 3 scheme. The contribution rate was 6 percent of earnings based on a real return of 4 percent for the first 20 years, scaling down to 3 percent over the next 20 years (by reducing investment risk through the systematic conversion of 50 percent of the

4 Other assumptions include a starting 4 percent real return on contributions for the first 20 years, scaling down to 3 percent over the next 20 years, and remaining at 3 percent over the 20-year decumulation period, assuming that 50 percent of the accumulating pension account will eventually be annuitized.

5 See Ambachtsheer (2007), Chapter 4 for a longer exposition.

6 See Ambachtsheer and Bauer (2007) and Bauer et al. (2007).

7 See Ambachtsheer, Capelle and Lum (2007).

8 CEM Benchmarking Inc. is a Toronto-based firm providing a range of performance benchmarking services to leading pension funds in Europe, North America, and the Pacific Rim.

9 Mutual fund fees have been under some pricing pressure recently. See for example Jonathan Chevreau's (2007) article "Sky-high fund fees finally slipping,"

accumulated pension assets into deferred annuities) and remaining at 3 percent for the 20 retirement years. Research cited above suggests that an arms-length, well-governed pension delivery organization with scale can add 1 percent per annum to passive financial market returns, lowering the required contribution rate from 6 percent to 4.5 percent of earnings.[10] With average lifetime annual earnings of $50,000, this translates into a cumulative saving of $30,000 in contributions.

Left to its own devices to invest retirement savings through retail products, the typical household, according to research, will under-perform market returns by at least 2 percent per annum (the cited Bauer et al. study found a 2 to 4 percent under-performance range). As a result, the contribution rate required to produce the target pension jumps from 6 percent to at least 10 percent of earnings, increasing lifetime contributions by at least $80,000 as compared to the first scenario (6 percent contribution rate) and at least $110,000 as compared to the second (4.5 percent contribution rate). These are very big numbers for most Canadians, and they demonstrate that agency, governance, and scale factors are not just theoretical concerns. It is clear that careful design of the institutions through which retirement savings are managed and converted into pension payments is essential to designing successful Pillar 3 pension arrangements.

How well does Canada's current retirement income system stack up? That is the question we turn to next.

Assessing Canada's Retirement Income System: Strengths and Weaknesses

We start with brief reviews of Pillars 1, 2 and 3 of Canada's retirement income system, and assess how well they are currently supporting the retirement income needs of Canadians.

Pillars 1 and 2 – Public Pensions Are a Strength

Pillar 1 is composed of two pay-as-you-go schemes funded from general tax revenue – the Guaranteed Income Supplement (GIS) and Old Age Security (OAS). For individuals aged 65, GIS pays up to $7,608 annually and OAS $6,028 for a combined maximum of $13,636. A steep clawback rate reduces the GIS to zero when income other than OAS is $15,240 or higher for individuals ($20,112 for couples). OAS is clawed back at a rate of 15 percent of income exceeding $64,718, reducing to zero when income reaches $104,903.[11] Pillar 2 is the Canada/Quebec Pension Plans (CPP/QPP), paying a maximum pension of $10,615 annually. With no other income sources, an individual receiving maximum benefits from Pillars 1 and 2 would receive an inflation-adjusted retirement income of about $19,000 at age 65. However, the average benefit paid by CPP/QPP is about half of the maximum, which means that a typical individual retiree who relies only on public pension benefits today receives about $16,000 annually. The equivalent amount for a couple is about $27,500.

These Pillars 1 and 2 facts point to one of the strengths of the Canadian retirement income system: Pillars 1 and 2 provide full coverage and high income-replacement rates for low-income Canadians. For example, using the 60 percent income-replacement adequacy rule of thumb developed above, the estimated $27,500 pension income from combined Pillar 1 and 2 sources for a Canadian couple (with no other income sources) replaces about $46,000 in annual work earnings for the couple. However, these calculations also make clear that middle- and higher-income Canadians will require additional Pillar 3 pension income to maintain their pre-retirement standard of living in retirement.

Pillar 3 – Voluntary Private Retirement Saving Arrangements

Whereas Pillar 1 is coverage is universal, and Pillar 2 participation is mandatory, Pillar 3 participation is voluntary. Pillar 3 is composed of pension and deferred profit sharing plans sponsored by

10 The calculation assumes the pension delivery organization can generate an average 1 percent excess return right across the risk spectrum. This is consistent with empirical experience.

11 Rates at January 2008. See http://www1.servicecanada.gc.ca/en/isp/oas/tabrates/tabmain.shtml.

employers and unions, and registered retirement saving plans (RRSPs). Contributions into these arrangements are deducted from the taxable income of the contributor; investment earnings accrue tax-free; withdrawals are taxed as income. Pension plans come in two types – defined benefit (DB) and defined contribution (DC). Most typically, DB plans promise a retirement benefit determined by a formula that takes into account service and earnings, or provides a flat benefit per month of employment service. DC pension plans and RRSPs are "capital accumulation plans" (CAPs) that provide a lump sum to be drawn in retirement or converted to an annuity. The recent 2008 Budget added tax-free saving accounts (TFSAs) to the list of options. TFSAs is a CAP that can be used by all Canadians 18 and over. There is no upfront tax deduction, but subsequent investment earnings and withdrawals are tax-free.

Pension regulations have established a number of ceilings and floors. The contribution ceilings are established through the federal *Income Tax Act* and Income Tax Regulations which restrict the amount and timing of contributions, the kinds of income that can be deferred in a pension plan or RRSP, who can contribute, and when retirement income must commence to be paid in tax-deferred plans. Floors are set through pension-standards legislation, enacted by every Canadian province (except PEI) and by the federal government for federally regulated employees. Whereas tax rules limit income deferral, pension-standards rules are supposed to protect pension plan members, primarily through vesting and locking-in rules, creditor protection and minimum-funding standards.

Weak Pension Coverage and Adequacy: A Pessimistic View

Statistics Canada has reported that in 2005, 9.4 million Canadian households (71 percent of the total 13.3 million) had Pillar 3 savings in workplace pension plans, RRSPs or RRIFs.[12] However, in a study published in June 2007, the Canadian Institute of Actuaries (CIA) took a closer look at post-work income adequacy in Canada. The study concluded that only "about one-third of Canadian households are currently saving at levels that will generate sufficient income to cover their non-discretionary expenses in retirement."[13] In other words, of the 9.4 million households with Pillar 3 savings, only 4.4 million (47 percent) were on the right "adequacy" track. The CIA study defined two key current income-earning groups as: modest income (about $40,000) and higher income (about $80,000). Table 1 provides key information about these two groups, which may be summarized as follows:

- Participation in DB plans is well below 50 percent in both income groups, and declining.
- Participation in other types of pension plans is rising, but not fast enough to offset the DB decline. Overall participation in workplace pension arrangements in Canada is declining.

Table 1: Trends in Workplace Pension Plan Membership and RRSP Contributions

	Percent Participation		
Income Level – Modest	**1996**	**2000**	**2004**
DB Plan	40	35	33
Other Plan	5	6	8
No Plan	55	59	59
RRSP Contribution	46	45	43
Income Level – Higher			
DB Plan	49	47	43
Other Plan	7	9	10
No Plan	44	44	47
RRSP Contribution	81	79	77

Source: Canadian Institute of Actuaries. "Planning for Retirement: Are Canadians Saving Enough?"

12 Statistics Canada (2008b, p. 14) shows 49 percent of families having an employer-sponsored pension plan, 58 percent of families having an RRSP, registered retirement income fund or other type of retail pension asset, and 71 percent having one or the other or both.

13 See Canadian Institute of Actuaries (2007).

- Less than half the population is contributing to an RRSP.
- The proportion of the population contributing to an RRSP is also declining.

The information in Table 1 masks a number of other relevant considerations:

- DB plan membership is predominant in the public and quasi-public sectors – only 20 percent of private sector workers are DB plan members.
- Participation rates in pension plans and RRSPs cannot be aggregated – many pension plan members also make RRSP contributions.
- About 70 percent of Canadians aged 65 and older own their own home, with a median value of $163K (88 percent had no mortgage).

The CIA study focused on the financial adequacy of retirement preparation within the 'modest' and 'higher' income groups for those expected to stop working in 2030. In all, the study looked at adequacy for 72 different profile groups based on income, one- or two-person household/earners, pension plan membership, retirement age, and home-ownership. Its key findings may be summarized as follows:

- RRSPs and workplace pensions have little relevance for low-income Canadians, as current Pillar 1 and 2 arrangements will maintain income at support-program levels in the post-work period.
- DB plan membership, combined with Pillar 1 and 2 payments, provides a powerful boost to post-work income adequacy for Canadians in the 'modest' and 'higher' income categories. Home equity can have a positive impact on post-work income adequacy. However, real estate is illiquid and property values fluctuate. There are different viewpoints as to what impact the aging of the boomer generation will have on future house prices.
- While RRSPs are tax-effective vehicles for accumulating retirement savings, most Canadians will have difficulty accumulating sufficient savings to achieve post-work income adequacy solely through RRSPs.
- Given the current data and the CIA assumptions, only one-third of Canadian households appear to be saving enough from all sources (e.g. workplace pensions, RRSPs, home equity), when combined with Pillar 1 and 2 payments, to be able to meet projected non-discretionary household expenses in 2030.

Some observers have argued that the CIA study paints a too gloomy 'adequacy' picture of Canadian retirement savings by setting the income adequacy bar too high for lower-to-middle income Canadians. In other words, the study assumes too high income-replacement rates for these Canadians. A study by former Department of Finance pension expert Keith Horner has painted a rosier picture.[14]

Weak Pension Coverage and Adequacy: A Rosier View

Key to Horner's conclusions is the disaggregation of the Canadian workforce by pension plan membership, income level, and employer size (shown in Tables 2 and 3). Out of a 2004 workforce of almost 15 million people, 5.4 million (37 percent) were members of workplace pension plans (RPPs), with most of them (4.9 million) working for large public- and private-sector employers. It is reasonable to assume that the 5.4 million RPP members will receive adequate Pillar 3 pensions. Of the 9.5 million non-RPP workers, 4.9 million earned under $30,000. For the reasons set out above (i.e., high income-replacement rates through Pillars 1 and 2), they are not prime candidates for Pillar 3 pension-plan participation. That leaves 4.6 million workers who could potentially benefit from Pillar 3 pension-plan participation. What about Pillar 3 retirement savings adequacy through the RRSP route? The distribution of RRSP assets appears to nicely follow the 80-20 Pareto Distribution rule,[15] with the top 20 percent of Canadians in terms of net worth having a median RRSP value of $111,100. The median

14 See Horner (2007).

15 The rule originated with the observation by Italian economist Vilfredo Pareto (1848-1923) that 20 percent of Italians owned 80 percent of all private property in Italy. This distributional asymmetry has since been discovered to be a very common phenomenon.

Table 2: C/QPP Contributors by Employment and RPP Coverage, 2004

Income Level	C/QPP	Self-Employed	RPP	Non-RPP
($000)		*(thousands)*		
0 – 30	6,862	908	1,017	4,937
30 – 60	5,117	387	2,552	2,178
60 +	2,874	279	1,808	787

Source: CRA Income Statistics, tables 3 and 12.

Table 3: RPP Coverage and Employer Size, 2005

Employer size	Employees	RPP Members	RPP Non-Members	RPP Coverage Incidence	Distribution RPP Members	Distribution RPP Non-Members
	(thousands)	*(thousands)*	*(thousands)*	*(percent)*	*(percent)*	*(percent)*
1-49	4,349	118	4,232	2.7	2.1	53.8
50-99	1,127	121	1,006	10.8	2.1	12.8
100-499	2,069	546	1,523	26.4	9.6	19.4
500+	5,988	4,885	1,103	81.6	86.2	14.0
Total	13,533	5,669	7,863	41.9	100.0	100.0

Source: Cansim table 2810042 for employees and table 2800010 for RPP members.

values for the other four quintiles were $35,000, $15,000, $6,000, and $0 respectively.[16] Reducing the 4.6 million by 20 percent still leaves 3.5 million Canadian workers (i.e., one-quarter of the workforce, mainly middle-income, working for smaller employers) as the primary group most likely to be on an inadequate retirement saving track. If Canadian small businesses continue to be a major engine of new employment in Canada, the documented problem of inadequate retirement saving will continue to grow in the coming years unless corrective steps are taken.

The specific 3.5 million number for Canadian workers on an inadequate retirement saving track is our own calculation.[17] Here is how Horner summarizes his findings:

- In general, Canada's retirement income system has performed well.
- While many Canadians are saving adequately, there are important gaps.
- In the modest earnings range, 50 percent of C/QPP contributors do not have RPP coverage, and perhaps half of those are saving inadequately.
- RPP coverage among private-sector males continues to decline, while that for females has plateaued. After a period of strong growth, RRSP savings appear to be plateauing as well, with an increasing share being devoted to pre-retirement needs.
- In contrast to the low wage growth and high investment returns of the last few decades, we may now be facing a period of higher wage growth and lower returns. This means it will take more saving (or years working) to produce adequate pension in the future.

16 See Statistics Canada (2008a).

17 Our 3.5 million workers assertion cannot be rigorously proven. However, we believe it to be a reasonable deduction.

Another Pillar 3 Weakness: High Investment Costs

The accumulation of $600 billion now invested through RRSPs by 8 million Canadian households raises one final important question: how is this retirement savings pool invested? According to Statistics Canada, the answer is two-thirds of RRSP households (i.e., 5.5 million) invest in mutual funds (mainly equity funds), and one-third have GIC investments, with other types of investments spread thinly among multiple other categories.[18] As noted, research indicates that the high costs associated with choice of investment vehicle can have a material negative impact on savings accumulation and hence income replacement.

Strengthening Canada's Retirement Income System: A Bold Proposal

This section addresses the question of what steps Canada could take to deal with the identified problems of under-saving and high investment costs.

Private Choices or Public Choices?

A prior question is whether any action should be taken at all. After all, the estimated 3.5 million under-saving Canadian workers are freely choosing to do so. The 5.5 million Canadian RRSP households investing in mutual funds are also freely choosing to do so. Is this not all a matter of private choice and caveat emptor? Adam Smith answered this question centuries ago. While his more famous *Wealth of Nations* detailed the benefits of enlightened self-interest and private choice in 1776, his less famous *Theory of Moral Sentiments* had already set out the virtues of public choice in certain matters of broad public interest in 1759. James Buchanan won the 1986 Nobel Prize in Economics for his work that distinguished between the respective merits of private- and public-choice models. He concluded that the private-choice model should always get preference providing it produces acceptable results. If it does not, move to the public-choice model if it can be demonstrated that it will likely produce better outcomes.[19]

Using the Buchanan framework, Canada's current retirement income system already has elements of both public and private choice in it. Pillars 1 and 2 are public choice elements, while Pillar 3 arrangements are based on private choices. Our analysis thus far indicates that these private choices are creating two unacceptable outcomes. First, some 3.5 million under-saving Canadian workers will likely face a materially reduced standard of living if they stop working at the normal retirement age of 65. Second, the high fees being paid by investors in many retail products could seriously hamper the efforts of some 5.5 million Canadian households with RRSP assets from achieving their retirement saving goals. Is there a public choice alternative that will likely produce better outcomes for these people? That is the question we address next.

The Canada Supplementary Pension Plan (CSPP)

In short, the answer is that we believe the Canada Supplementary Pension Plan (CSPP) would very likely produce materially better pension outcomes for millions of Canadian households. Its key features follow directly from the ideal pension model design principles set out earlier in this paper. Readers should not take the key feature descriptions below as definitive. Instead, the intent is to help visualize plausible possibilities requiring further detailed study:

- *Automatic enrolment of all non-covered workers into the CSPP:* to address the identified pension coverage problem, all Canadian workers who are not members of a workplace-based pension plan are (subject to opt-out provisions described below) automatically enrolled in the CSPP.[20] This implies

18 See Statistics Canada (2008a).

19 Thanks to Rotman School of Management's Dean Roger Martin for the Buchanan reference. See Buchanan(1969).

20 Auto-enrolment has proved to be a powerful pension policy tool. Research shows that the drop-out rate out of well-designed pension arrangements with an auto-enrollment feature is low. See, for example, Benartzi and Thaler (2008) who cite drop-out rates well below 10 percent. For this reason, auto-enrolment is a critical component of the current UK pension reform initiative. See UK Pensions Commission (2004) and (2005).

a joint federal-provincial plan; however, separate provincial initiatives are a feasible alternative.

- *Use the CPP/QPP payroll deduction mechanism:* to maximize simplicity and minimize costs, contributions to the CSPP are collected using the same mechanism used to deduct CPP/QPP contributions. CSPP contributions are directed into personal retirement saving accounts set up for, and owned by, each CSPP participant.
- *Operate within the existing tax and regulatory regime for pensions:* to further maximize implementation simplicity, the CSPP would operate within the current three Canadian pension pillars and the current tax/regulatory regime regarding pensions. So, for example, CSPP contributions would be subject to the current maximum tax deductibility rule of 18 percent of earnings up to a maximum contribution of $20,000. This implies $111,111 is the current earnings ceiling to which the full 18 percent deduction applies.
- *Target a 60 percent post-work earnings replacement rate:* in principle, CSPP contributions should be set so that a post-work 60 percent earnings replacement rate becomes a realistic goal (integrated with both OAS and CPP/QPP benefits) for all working Canadians.
- *Set an earnings floor and ceiling for CSPP deductions:* the 60 percent replacement target implies establishing an earnings floor below which no automatic CSPP deductions are made. Given Canada's current Pillars 1 and 2, that floor might be $30,000. At the other end, a simple ceiling for automatic CSPP deductions might the current $111,111 maximum earnings tax deferral ceiling.
- *Set an automatic default CSPP contribution rate:* again, in the interest of implementation simplicity, the automatic CSPP contribution rate between $30,000 and $111,000 might be set at 10 percent of earnings. The CSPP contributions of lower income earners (say in the $30,000 to $45,000 tranche) could go to TFSA-type accounts. Setting the optimal default contribution rate will be one of the most challenging aspects of setting up the CSPP. Higher saving rates now lead to higher standards of living later, but at the cost of a lower standard of living today.
- *Provide an opt-out option:* employers/employees share the automatic default CSPP contribution deductions equally. However, if a complete non-compulsion philosophy is maintained, either or both employers and employees can opt out of this particular plan feature.[21]
- *Provide an opt-in option:* employers/employees who choose to opt out of the CSPP's automatic default contribution mechanism can still use the CSPP infrastructure to accumulate retirement savings in personal retirement saving accounts in any manner they choose within the existing tax/regulatory structure.
- *Provide an RRSP assets transfer option:* Canadians also have the option to move their accumulated RRSP assets into their CSPP personal retirement saving account.
- *CSPP operates at arms-length from government:* the CSPP operates as an arms-length, expert entity similar to the CPP Investment Board. It has sufficient scale to operate at low unit cost (e.g., at or even below 0.3 percent of assets/yr.).[22]
- *CSPP operates as an expert, high-performance financial institution:* the investment arm of the CSPP has a mandate to manage a Risk-Optimizing Portfolio (ROP) in which each personal retirement saving account can participate.[23] In a manner similar to current CPP Investment Board investment policy, the ROP is a broadly diversified global return-seeking portfolio. The CSPP also manages a Hedging Portfolio (HP) option for CSPP participants with low risk tolerances who want to secure future pension payments at minimum risk. The CSPP is obliged to report investment results for the ROP and HP investment strategies, and progress towards achieving individual target pensions, in an understandable way to CSPP participants on a regular basis.

21 The double 'opt-out' approach places the emphasis on the libertarian half of libertarian paternalism. In the UK pension reform plan, only workers will have the 'opt-out' option. Even if employers have an 'opt-out' option, we foresee most willing to match employee contributions for employees participating in the CSPP. This assumption would have to be tested by surveying Canada's employer community.

22 Sufficient scale would be attained quickly. For example, 3 million Canadian workers contributing an average $3,000 per annum generates an annual cash-flow of $9 billion even before any shift of existing RRSP monies to the CSPP.

23 The CPP Investment Board can serve as the prototype for executing this type of mandate. It can also serve as the prototype in terms of legal and governance structure, and a strong requirement for transparency and regular communication with stakeholders.

- *CSPP offers a number of annuitization options:* prior to age 45, all contributions are automatically invested in the ROP option. However, CSPP participants can choose to divert any proportion of their contributions into the HP option. 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. The annuities are targeted to begin paying monthly pensions at age 65. Participants have an option to commence the deferred annuity purchase process earlier or later than age 45, and pension payment commencement earlier or later than age 65. They can also opt out of the default annuity purchase process and receive all retirement income in a RRIF-style payment option.[24]
- *A "paternalistic libertarian" philosophy:* to reiterate again, any auto-enrolled Canadian worker or employer who does not wish to be CSPP participant in any way can opt out of the plan. This paternalistic libertarian approach balances the need millions of Canadians have to be part of a structured, cost-effective approach to accumulating retirement savings on the one hand, with the preferences of some Canadians to do this on their own, on the other.

I believe that a plan with these key features will be welcomed by most of the almost 10 million Canadian workers without Pillar 3 pension plan membership, and especially by the 3.5 million Canadians who I estimate to be under-saving.[25] The CSPP offers all Canadians a realistic chance to achieve post-work income adequacy in a transparent, fair, cost-effective, and portable manner. In addition, the creation a of new arm's-length, expert pension delivery organization would add importantly to Canada's already-strong financial intermediation and global investment management capabilities. These capabilities will help Canada maintain leadership in the 21st century global quest to create new wealth within the confines of a finite planet.[26]

However, we should all be clear about the implications of achieving this new pension vision for Canada. The creation and implementation of the CSPP cannot be left to private-choice market forces alone, as the barriers to success would be too formidable. As with CPP/QPP reforms of the 1990s, pro-active public choice intervention by Canada's federal and provincial governments is required. Canada's federal and provincial governments must create the legal and institutional structures required to make the CSPP element of Pillar 3 pension reform as successful now as the Pillar 2 CPP/QPP reform process was 10 years ago. They could leave Canadians no greater legacy.

Pillar 3 Pension Reform in Other Times and Other Places

It is a little-known fact that, prior to the establishment of the CPP/QPP, the province of Ontario seriously contemplated establishing a mandatory workplace-based pension plan for all Ontario workers. Indeed, draft legislation "on the extension and improvement of pension plans and the portability of their benefits" was announced by Premier Leslie Frost on February 17, 1961.[27] However, these efforts were abandoned in favour

24 We leave the exact features of the 'auto-pilot' annuities open to further research and discussion. Also, the best way for managing the proposed annuitization process will have to be determined. Likely, self-annuitization within the CSPP will be the most cost-effective way to go. The US universities pension system TIAA-CREF has successfully managed on the basis of separate individual investment accounts (i.e., the CREF component) and a collective risk-pooling annuity balance sheet (i.e., the TIAA component) for decades. See a new paper by Brown et al. (2008) on ambivalent worker attitudes towards annuitization. See also a new paper by Scott (2008) on 'longevity annuities' which only insure old-age (e.g., post-85) longevity.

25 Behavioural finance research explains why most Canadians do not have either the skills or the self-discipline required to generate an adequate post-work income stream on their own. That does not mean, however, that they are not keenly interested in participating in a process designed to achieve that outcome. Their strong support for the CPP/QPP reform measures taken in the 1990s are evidence of this. Further, a recent survey by La Régie des Rentes du Québec found that 60 percent of workers without a pension plan preferred joining a pension plan to higher wages. See *Le Devoir* (2008).

26 The CPP Investment Board has shown leadership in this regard by offering early support to the establishment of the UN Principles of Responsible Investment.

27 See the First and Second Reports of the Ontario Committee on Portable Pensions (1961).

of the subsequent establishment of the CPP/QPP. In more modern times, the northern European countries (e.g., the Netherlands, Denmark, Sweden, and Iceland) have taken the lead in Pillar 3 pension reform, focusing especially on ensuring full work-force coverage, adequacy, portability, and cost-effectiveness. Australia instituted mandatory participation in Pillar 3 pension arrangements for the entire workforce in 1991.

There are multi-employer and regional pension plans in North America that already operate with many of the proposed features of the CSPP. In the USA for example, the Teachers' Insurance & Annuity Association (TIAA) was founded in 1918 by Andrew Carnegie to provide pensions for university professors and other workers in the higher education and research sectors. A personal accounts element (College Retirement Equity Fund or CREF) was added in 1952. Today TIAA-CREF manages the pension arrangements for 3.5 million workers working for 15,000 employers in the US higher education and research sectors. Total assets are $450 billion. In Canada, on a much smaller scale, Saskatchewan's Cooperative Superannuation Society Pension Plan (CSSPP) was incorporated in 1939. Today the CSSPP has 32,000 active members and 5,800 pensioners, managing $3 billion on their behalf at a total cost of 0.15 percent of assets. Like TIAA-CREF, the CSSPP has both personal accounts and self-annuitization features. In addition, it also offers a RRIF-type pension payment option.

However, it is recent UK experience that most closely parallels the current Canadian situation. We already noted that the UK government commissioned a detailed study of all pillars of the UK retirement income system chaired by Lord Turner.[28] The study's key findings were:

- *Under-saving for retirement:* an estimated 7 million workers in the UK are under-saving for their retirement.
- *Complexity:* the UK has a complex pension system, making it difficult for people to choose what retirement provisions are best for them. This difficulty is compounded by inertia and mistrust of the UK financial services sector.
- *Demographic and social change:* longevity is up and fertility is down, placing increasing pressure on pension provision adequacy and affordability.
- *Inadequate institutional arrangements:* Specific groups of people are not being adequately provided for (e.g., workers with moderate incomes working for small firms).

The Turner Commission's key recommendation to deal with these issues was "the creation of a low-cost, national, funded pension savings scheme into which individuals would be automatically enrolled, but with the right to opt out." In May 2006, the UK government unveiled draft legislation to implement this recommendation. The *Pensions Act* of 2007 established an arms-length Personal Accounts Delivery Authority charged with "providing expert advice to the Government" to develop the practical implementation of the new pensions policy. A newly introduced *Pensions Act* "allows for the broadening of the Authority's mandate so that it can oversee the establishment of the personal accounts scheme." In a third stage, the Authority "will hand over the day-to-day running and strategic management of the personal accounts scheme to a trustee corporation." In short, the UK is well-underway to implementing its own version of what we call the CSPP in this paper.

An Action Agenda For Individual Canadians, Collective Groups of Canadians and Governments

This final section of this paper lays out an agenda for the three key constituencies whose actions can transform Canada's retirement income system for the benefit of all Canadian workers.

- Individual Canadians who are not members of good employer pension plans must make it clear to their elected federal and provincial representatives and to their employers that they

28 See UK Pensions Commission (2004) and(2005).

care passionately about maintaining their standards of living in retirement. Canadians must understand that they all do not need to become experts in life-cycle finance and investments to achieve this goal. Instead, they should insist that their elected representatives and employers play informed, constructive roles in inserting the major missing piece in Canada's current system that would deal with the inadequate coverage and retirement saving problems millions of Canadians currently face, and with the too-high implementation costs faced by millions more. That major missing piece is the Canada Supplementary Pension Plan.
- Collective groups of Canadians (e.g., professional groups, business groups, employers, organized labour) must also play constructive roles in improving Canada's retirement income system. These collectives can add their powerful voices to those of individual Canadians, demanding that the major faults in the Pillar 3 component of the system be addressed. We hope that they will see a vision in this paper around which they can join forces.
- Governments must understand that the provision of adequate, sustainable, affordable post-work income streams is one of the great 21st century challenges facing developed countries such as Canada. Canada's political leaders can take great credit for successful CPP/QPP reforms, which have left Canada in the enviable position of having one of the most secure Pillar 1 and 2 schemes in the world. The time has now come to reform Pillar 3. Just as federal and provincial finance ministers and their officials sat down in the mid-1990s to address the growing sustainability and fairness problems of the CPP/QPP, now they must sit down and do the same for the failing elements of Canada's Pillar 3 pension arrangements identified in this paper.[29] While substantive pension reform in the past has always required strong federal-provincial collaborative efforts, there is usually a champion. Former Prime Minister Paul Martin deserves considerable credit for driving the CPP/QPP reforms of the 1990s forward to a successful conclusion.[30] The critical question today is which political leader (and political party) will pick up the baton for the new round of pension reforms that are now required.

In conclusion, Canadians need a collective vision of the retirement income system they want to sustain them in the 21st century, and they need the outline of a plan to turn that vision into reality. This paper offers both.

29 Federal-provincial consensus is the preferred route. However, the contemplated initiative by Ontario to establish its own Pillar 3 pension plan in the 1960s, and the actual creation of the Quebec Pension Plan in that decade, suggest the CSPP concept could also be implemented at the regional or provincial level.

30 Veteran journalist Bruce Little is writing a timely history of CPP/QPP reform and its lessons titled "Fixing the Future: how Canada's usually fractious governments worked together to rescue the Canada Pension Plan." Publication is expected in November 2008.

References

Ambachtsheer, Keith. 2007. "Pension Revolution: A Solution to the Pensions Crisis." John Wiley & Sons, Hoboken, NJ.

Ambachtsheer, Keith, and Rob Bauer. 2007. "Losing Ground: Do Canadian Mutual Funds Produce Fair Value for their Customers?" *Canadian Investment Review*. Spring issue.

Ambachtsheer, Keith, Ronald Capelle, and Hubert Lum. 2007. "The State of Global Pension Fund Governance Today: Board Competency Still a Problem." Working Paper. Rotman International Centre for Pension Management, University of Toronto.

Bauer, Rob, et al. 2007. "The Performance of US Pension Funds: New Insights into the Agency Costs Debate." Working Paper, Rotman International Centre for Pension Management, University of Toronto.

Benartzi, Shlomo, and Richard Thaler. (2008). "Heuristics and Biases in Retirement Savings Behavior." *Journal of Economic Perspectives.* Forthcoming.

Bodie, Zvi, et al. 2007. "The Future of Life-Cycle Saving and Investing." Research Foundation of the CFA Institute. Charlottesville VA.

Buchanan, James. 1969. "Cost and Choice: An Inquiry into Economic Theory." The Library of Economics and Liberty.

Brown, Jeffrey, Marcus Casey, and Olivia Mitchell. 2008. "Who Values the Social Security Annuity? New Evidence on the Annuity Puzzle." National Bureau of Economic Research. Working Paper 13800.

Canadian Institute of Actuaries. 2007. "Planning for Retirement: Are Canadians Saving Enough?" University of Waterloo.

Chevreau, Jonathan. 2007. "Sky-high fund fees finally slipping." *National Post.* April 30.

Drucker, Peter. 1976. *The Unseen Revolution: How Pension Fund Socialism Came to America.* Harper & Row, NY.

Horner, Keith. 2007. "Emerging Challenges and Policy Responses within Canada's Retirement Income System." Prepared for HRSD Canada.

Laidler, David, and William B.P. Robson. 2007. *Ill-Defined Benefits: The Uncertain Present and Brighter Future of Employee Pensions in Canada.* C.D. Howe Institute Commentary 250. Toronto.

Le Devoir. 2008. "La Régie courtise les petits entrepreneurs – Une meilleur retraite est préférée à un meilleur salaire immediate." Mercredi, 26 Mars.

Mitchell, Olivia, and Stephen Utkus. 2004. *Pension Design and Structure*. Oxford University Press, Oxford, UK.

Ontario Committee on Portable Pensions. 1961. Summary Report. Ontario Archives.

Ontario Committee on Portable Pensions. 1961. Second Report. Ontario Archives.

Scott, Jason. 2008. "The Longevity Annuity: An Annuity for Everyone?" *Financial Analysts Journal*, January-February 2008. Vol. 64, No. 1.

Shillington, Richard. 2003. "New Poverty Traps: Means-Testing and Modest-Income Seniors." C.D. Howe Institute Backgrounder 65. Toronto.

Smith, Adam. 1759. *The Theory of Moral Sentiments.* Library of Economics and Liberty.

Smith, Adam. 1776. *The Wealth of Nations*. Library of Economics and Liberty.

Statistics Canada. 2008a. "Perspectives on Labour and Income." Vol. 9, No. 2, February.

Statistics Canada. 2008b. "The Wealth of Canadians: An Overview of the Results of the Survey of Financial Security 2005." Catalogue 13F0026MIE. February.

The Economist. 2008. "Trillion-Dollar Baby: Investors pay too much to have their money managed." March 1-7.

Thaler, R., and C. Sunstein. 2003. "Libertarian Paternalism." *American Economic Review* 93(2): 175-197.

UK Pensions Commission. 2004. "Pensions: Choices and Challenges." The First Report of the Pensions Commission.

UK Pensions Commission. 2005. "A New Pension Settlement for the 21st Century." The Second Report of the Pensions Commission.

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