C.D. Howe Institute
Institut C.D. Howe

Benefactors Lecture, 2009

Pension Reform: How Canada Can Lead the World

Keith Ambachtsheer
Director, Rotman International Centre for Pension Management, Rotman School of Management, University of Toronto

C.D. Howe Institute

The C.D. Howe Institute is a national, nonpartisan, nonprofit organization that aims to improve Canadians' standard of living by fostering sound economic and social policy.

The Institute promotes the application of independent research and analysis to major economic and social issues affecting the quality of life of Canadians throughout the country. It takes a global perspective by considering the impact of international factors on Canada and bringing insights from other jurisdictions to the discussion of Canadian policy. Recommendations in the Institute's publications are founded on quality research conducted by leading experts and subject to rigorous peer review. The Institute communicates clearly the analysis and recommendations arising from its work to the general public, the media, academia, experts, and policymakers.

The Institute began life in 1958 when a group of prominent business and labour leaders organized the Private Planning Association of Canada to research and promote educational activities related to public economic and social policy. The PPAC renamed itself the C.D. Howe Research Institute in 1973 following a merger with the C.D. Howe Memorial Foundation, an organization created in 1961 to memorialize the Right Honourable Clarence Decatur Howe. In 1981, the Institute adopted its current name after the Memorial Foundation again became a separate entity to focus more directly on memorializing C.D. Howe. The C.D. Howe Institute celebrated its 50th Anniversary as the gold standard for Canadian public policy research in 2008.

The Institute encourages participation in and support of its activities from business, organized labour, associations, the professions, and interested individuals. For further information, please contact the Institute's Development Officer.

The Chairman of the Institute is David Dodge; William B.P. Robson is President and Chief Executive Officer.

C.D. Howe Institute
67 Yonge Street, Suite 300
Toronto, Ontario M5E 1J8
tel.: 416-865-1904
fax: 416-865-1866;
e-mail: cdhowe@cdhowe.org
www.cdhowe.org

C.D. Howe Institute

Institut C.D. Howe

Benefactors Lecture, 2009

Pension Reform:
How Canada Can Lead the World

Keith Ambachtsheer
Director, Rotman International Centre for Pension Management, Rotman School of Management, University of Toronto

Toronto, November 18, 2009

Foreword

Although financial crisis and economic slump are far from ideal developments to pique interest in saving and post-retirement income, the attention Canadians are now paying to the country's contractual and voluntary pension system is long overdue. Two of the national pension system's pillars are in relatively good shape. The first pillar – the safety-net system of Old Age Security and Guaranteed Income Supplement payments – provides a decent protection against destitution and should be sustainable as the babyboomers move into old age. The second pillar – the Canada and Quebec Pension Plans – will ensure that current workers receive a modest post-retirement income at a reasonably stable cost to their successors. The third pillar – occupational pension plans and individual saving, mainly in Registered Retirement Saving Plans (RRSPs) – threatens, by contrast, to fail many people who look to it for a comfortable retirement, while potentially imposing high costs on specific groups of workers, not to mention taxpayers. As Keith Ambachtsheer argues in the C.D. Howe Institute's 2009 Benefactors Lecture, Canadians should not, and need not, let these problems persist and grow.

In my view, a key obstacle to improving Canadians' opportunities to save and make a smooth transition to a comfortable retirement is a widespread perception that there are essentially only two options for a third-pillar pension system. One is the classic single-employer defined-benefit plan, whose promise of guaranteed future benefits at modest current cost has failed. The other is individual saving in a defined-contribution plan or RRSP, which leaves too many people at risk of saving the wrong amounts and in the wrong forms, and retiring to a poorer standard of living than they could have otherwise achieved. Canadians generally, and policymakers particularly, are victims of history, which in Canada has meant that those are the dominant models. Yet many other options exist – options that can guide individuals to better saving rates, protect them from common mistakes when choosing vehicles through which to save and to draw down their saving, and help them avoid unnecessary costs and risks. This is the rich territory that Keith Ambachtsheer helps us to explore in his Lecture.

Because he not only lays out some principles for an improved third-pillar pension system in Canada, but also proposes specific reforms to achieve it – some of them involving major new interventions in private-saving arrangements by governments – Keith's views will inspire controversy. As he acknowledges in this Lecture, more than one approach exists for improving the retirement prospects of people ill served by current arrangements, and those who take a different view of the appropriate respective roles of publicly and privately governed arrangements will take issue with some of his preferences. Yet most will agree that, in an age of greater longevity, likely lower average investment returns, and greater transparency and accountability, the goals he espouses for a revamped system make sense. Our goal in publishing this Lecture is to encourage better understanding of the challenges Canadians face in contractual and voluntary saving for retirement, and clearer thinking about the policy reforms that can deal with them.

Many people besides the author deserve credit for producing a work such as this. I thank the many reviewers, and notably the members of the C.D. Howe Institute's Pension Papers Advisory Group, who read earlier drafts and offered their comments and insights. James Fleming, the Institute's Editor, Barry Norris, who copy-edited the manuscript, and Heather Vilistus, the Institute's Graphic Designer, deserve special credit for producing the finished publication.

The C.D. Howe Institute's aim in the Benefactors Lecture series is to raise the level of public debate on issues of national interest. As with all C.D. Howe Institute publications, the opinions expressed here are those of the author, and do not necessarily represent the views of the Institute's members or Board of Directors. I am confident, however, that the arguments Keith Ambachtsheer presents in this Lecture are motivated by a deep concern to improve Canadians' prospects of a comfortable old age, and are worthy of attention and respect.

William B.P. Robson
President and Chief Executive Officer
C.D. Howe Institute

This is a propitious moment in time to compose a Benefactors Lecture on pension reform, and I am grateful to the C.D. Howe Institute for the opportunity to do so. Canada successfully reformed the public part of its pension system in the 1990s. Since then, the part of the system that is supposed to supplement public pensions has been increasingly showing its age. In fact, the term system is a misnomer. The supplemental part of the system is really a myriad of individual and collective pension bits and pieces loosely held together by a collection of federal and provincial laws and regulations that are short on focus and relevance.

This reality leads directly to the central theme of this Lecture: the time has come to turn our current supplemental pensions jumble into a coherent system with a clear goal and a clear plan to achieve it.

In this Lecture, I observe that the decade of the sixties was a fertile one for social policy in Canada, with the birth of both universal medicare and the Canada/Quebec Pension Plans. The time has now come to think more broadly about pension design in Canada in the form of a holistic, integrated system. I set out the goals of such a system and the principles on which it should be based. I move from there to describe the system's key components. In concluding, I argue that the necessary conditions for moving to such a system are now at hand, and I outline the steps that must be taken to achieve it.

Can the collective will to take these reform steps be marshalled? That remains to be seen. It is clear, however, that a necessary element of success has been missing thus far. It is a compelling narrative that pulls all the pension bits and pieces together into a holistic pension vision around which all Canadians can rally. That is the foremost goal of this Lecture.

The author acknowledges the many helpful suggestions of reviewers of earlier drafts of this Lecture. They have much improved both the Lecture's content and its readability. Ann Henhoeffer's research and help in assembling the Lecture have been invaluable.

Part I. From Universal Medicare to Universal Pensioncare: Canada's Next Social Frontier

Big Ideas

"Greatest Canadian" Tommy Douglas had a dream 50 years ago. "My friends," he said at the time, "watch out for the little fellow with a big idea." That big idea, implemented in Saskatchewan in 1962 and then nationally in 1968, was a comprehensive, portable, publicly funded healthcare system, giving all citizens access to a full array of medical and hospital services. Despite today's shortcomings and future challenges as the population ages, many Canadians agree that universal healthcare is the essential social program that continues to define this country for them.

The 1960s was a busy time for Canada's social architects. In addition to the 1968 *Medical Care Act,* legislation led by Lester Pearson was passed in 1965 creating the parallel Canada Pension Plan (CPP) and Quebec Pension Plan (QPP). The CPP/QPP, together with Old Age Security (OAS) and other seniors' benefits, such as the Guaranteed Income Supplement (GIS), are doing much to lift many of Canada's 9.5 million low-income workers out of poverty in the post-work years of their lives.[1] Through cooperative efforts between Ottawa and the provinces, these programs were updated in the 1990s and placed on a more fiscally sound footing. As a result, experts agree that the universal OAS/GIS and CPP/QPP components of Canada's retirement income system are in better shape today than are their counterparts in many other developed economies.[2]

The Sorry State of Canada's Supplemental Pensions Sector

The news is not so good in the supplemental (that is, supplemental to OAS/CPP/QPP payments) sector of Canada's retirement income system. This sector ideally provides to Canada's 8.3 million middle- and higher-income workers the additional income necessary to maintain desired post-work living standards. The option to defer income tax on retirement savings has indeed spawned millions of individual Registered Retirement Savings Plans (RRSPs) and thousands of collective Registered Pension Plans (RPPs). However, Statistics Canada data and recent expert studies by the C.D. Howe Institute and others, including reports commissioned by the Alberta/British Columbia, Nova Scotia, and Ontario governments,[3] show that 3.8 million of these 8.3 million

1 "Low income" does not necessarily mean "poor." For example, many part-time workers have spouses who are full-time workers. The appropriate level of financial support for "poor" Canadians of all ages, and how to best provide it, is an important (and controversial) topic that should focus on redesigning income-support programs such as the GIS. Such a redesign, however, falls outside the ambit of this Lecture.

2 See Little (2008) for an excellent account of the origins and evolution of the CPP/QPP. Critics correctly point out that early participants in these plans got a bargain, receiving benefits well in excess of the contributions made.

3 See Joint Expert Panel on Pension Standards (2008); Ontario (2008); and Nova Scotia (2009). The C.D. Howe Institute's Pension Papers Series is available at website: www.cdhowe.org. See also Gunderson and Wilson (2009); and Baldwin and FitzGerald (forthcoming).

workers (mainly middle income, in the private sector) have been left to their own devices to navigate the dangerous waters of saving and investing for their retirement. There is evidence that many of these workers will not be able to maintain their desired standard of living when they stop working 10 or 20 years from now.

Meanwhile, the 4.5 million private- and public-sector workers in the middle- and higher-income brackets who are covered by employment-based defined benefit (DB) plans and capital accumulation plans (CAPs) have a different problem. As I outline later in this Lecture, many of these plans have serious design flaws, which the recent global financial crisis has laid bare. Moreover, DB plan coverage is declining, the DB plans of some financially weak corporations are failing, many public-sector DB plans are becoming seriously underfunded, and, as a result of the financial upheaval, many individual pension accounts in CAPs have lost 20 percent or more of their value.

Why is the sector that should be supplementing post-work incomes beyond what the public components of Canada's retirement income system provide in such a sorry state today? A common theme of the expert studies is that, while we have been innovative in the OAS/GIS and CPP/QPP sectors, this has not been the case in the supplemental pensions sector. The designs of our collective and individual supplemental pension plans are out of date, as are the ways in which we legislate, regulate, and manage these arrangements.

The Way Ahead

Fortunately, the recent crop of pension reform studies shows an increasing awareness of these problems and provides important ideas on how they could be solved. The studies generally agree that pension reform should be based on four principles.

1. Pension plan designs should target a post-work standard of living that is adequate, achievable, and affordable.[4]
2. All workers should have a simple, accessible, portable opportunity to participate in pension plans that have explicit post-work income-replacement targets.
3. All forms of retirement saving should receive equal tax, regulatory, and disclosure treatment across all sectors of the Canadian workforce.[5]
4. Pension management and delivery structures should be expert, transparent, and cost effective.

4 Although this first principle seems benign, in fact it embeds some very knotty issues. For example, which post-work income replacement rates represents adequacy: 100 percent? 60 percent? The long-standing convention that age 65 is the normal retirement age offers another example. Many countries are now re-examining this convention, and a consensus is building that, with low birth rates and increasing longevity, age 67 eventually must become the new normal. There is, however, fierce opposition from some quarters to making such a change.

5 This third principle is also less benign than it at first seems. For example, in a study for the Canadian Federation of Independent Business, Charron (2007, 1) points to "a widening gap between public and private-sector retirement trends and pension plans." Indeed, some critics argue that this asymmetry helps explain why pension reforms benefiting Canada's private sector have lagged so badly: the politicians and public servants responsible for these reforms do not have pension problems themselves.

Although pension arrangements consistent with these four principles can be structured in a number of ways, all will have four overarching elements in common:

i) a stated target post-work income-replacement rate for all pension plans (such as 60 percent of final work income, indexed for inflation, including the OAS/CPP pensions);
ii) one national, or a number of regional, provincial, or other large-group-based supplementary pension plans for workers without an employment-based pension plan;
iii) guarantees in pension plans are subject to the same solvency standards as those governing insurance companies and other financial institutions; and
iv) the requirement that pension-delivery structures or organizations demonstrate good governance and cost effectiveness on a regular basis.

The implementation of the four pension reform principles in a manner that includes these four elements would constitute a comprehensive *Pensioncare* policy for Canada, earning it a global top ranking in retirement income system design and management.[6] This, in turn, would create a material competitive advantage for Canada through enhanced post-work income levels and stability and through spurring capital formation and wealth creation.

This is not a pie-in-the-sky pension vision but an achievable big idea whose time has come. The recent creation of the Federal-Provincial Working Group on Pension Reform offers a tangible means to develop the big idea further and to set in motion the steps necessary to turn it into reality. By adopting the principles and the concrete implications of the comprehensive *Pensioncare* vision set out in this Lecture, we can raise the pension side of the great Canadian social reforms of the 1960s to the next level. Indeed, taken together, these proposals would define a new global gold standard for pension design and delivery.

Tommy Douglas and Lester Pearson would be pleased.

Part II. Canada's Retirement Income System: What the Facts and Figures Tell Us

Government Pensions

Out of the Canadian population of 33 million people, almost 18 million participate in the workforce (see Table 1). With no other income sources, a 65-year-old Canadian with maximum government pension benefits currently could receive $19,776 in inflation-indexed income ($34,218 for couples). The typical recipient, however, receives only half the maximum CPP/QPP total, reducing the annual amount to $16,760 for singles and $28,202 for couples. Of Canada's 4.2 million seniors, 38 percent currently receive GIS payments.

6 The Melbourne Mercer Global Pension Index initiative has just begun to assign pension-quality grades to countries on an experimental basis. None of the initial 11 countries in the Index, including Canada, receives an A grade, but Canada has an opportunity to get there first if it improves in some areas.

Table 1: Canada's Demographics and Public Pension Payment Structure

Demographics	Population (millions)	Annual Public Pension Payments ($)		
Total	33.0	Payments	Singles	Couples
Workforce	17.8	OAS/GIS	14,034	28,068
Low income (<$30,000)	9.5	CPP/QPP	10,905	21,810
Middle income ($30,000-$125,000)	7.8	OAS/GIS/ CPP/QPP	19,776	34,218
High income (>$125,000)	0.5			
Seniors (65+) with OAS	4.2			
Seniors with GIS	1.6			

Source: Data from Statistics Canada, assembled with the assistance of the Office of the Superintendent of Financial Institutions using latest available data.

Government pensions at these levels represent significant income-replacement rates for Canadians with low incomes from full-time employment. I take the position, however, that these are not the natural target group in considering how to reform the supplemental sector of Canada's pension system today.[7] I also assume that high-income Canadians (those earning over $125,000) are generally in a better position to look after their own retirement-income needs, although, as I discuss later, this group faces formidable (and inequitable) barriers to accumulating adequate post-work incomes. This segmentation leaves middle-income workers (those earning between $30,000 and $125,000) as the critical group to bear in mind in assessing the need for, and in shaping, pension reform today. These are the Canadians most likely to need help to secure additional retirement income to supplement basic OAS/CPP/QPP pension entitlements if they are to maintain an adequate post-work standard of living. Statistics Canada data suggest there are 7.8 million workers in this category, out of a total workforce of 17.8 million.

Tax-Deferral Rules, Pension Plan Participation, and Earnings Replacement Adequacy

Where are the supplemental pension payments to come from for our target group of 7.8 middle-income workers? The prevailing public policy answer has been: through voluntary arrangements

7 The new Tax Free Savings Accounts (TFSAs) offer low-income Canadians an opportunity to save for future consumption needs without losing GIS eligibility, but the simple reality is that low-income Canadians need their current income to support current consumption.

where income tax on retirement savings can be deferred until they become pension income in the hands of individuals. These arrangements take one of two primary forms: employment-based RPPs or personal pension accounts – mainly in the forms of individual or group RRSPs and Registered Retirement Income Funds (RRIFs).

The maximum deduction ceiling for RRSPs currently is set at 18 percent of pay, up to a maximum of $21,000 in 2009, rising to $22,000 in 2010. Although, in theory, contributions to RPPs are subject to the same ceiling, this is often not the case in practice. In documenting the growing inequity between retirement and pension income practices in the public and private sectors, Charron (2007) notes, for example, that the average age of retirement in the public sector has fallen from 64 in the 1970s to 59 in this decade, but only from 65 to 62 in the private sector. The average retirement age of the self-employed, at 66, has not changed at all. On the pension income side, in contrast to the maximum contribution rate of 18 percent of pay for those in the private sector, the full cost of a final-earnings-based, inflation-indexed pension in the public sector exceeds 30 percent of pay.[8]

Of Canada's workforce of 17.8 million, 5.7 million have an RPP. Of these RPPs, 4.6 million are DB plans (see Table 2), covering about half the 7.8 million middle-income workers. Of all 5.7 million workers with an RPP, 2.9 million also have an RRSP. At the same time, 3.3 million workers have accumulated retirement savings only in an RRSP. The remaining 8.8 million workers, almost half the total workforce, have neither an RPP nor an RRSP. On the payout side, 3.3 million retirees currently receive payments from an RPP and 0.4 million are drawing down personal RRIFs. Against the current population base of 4.2 million seniors (those age 65 and older), these numbers imply that a significant proportion of today's seniors receives supplemental pension income from sources other than the GIS, while, as noted, 38 percent of seniors receive GIS payments.

None of these figures speaks directly to the question of future post-work income adequacy. However, one can draw some inferences from the data. For example, one can reasonably assume that most workers with both an RPP and an RRSP, or even just an RPP alone, will receive adequate levels of post-work income (including OAS/CPP payments and assuming the RPP remains solvent). These workers aside, one is narrowing in on the segment likely to be most in need of help: the subset of the 7.8 million workers with incomes between $30,000 and $125,000 who do not have an RPP, a category that contains 3.5 million Canadians. Many are likely self-employed or working for small or mid-size private-sector employers. But are these people not capable of looking after their own post-work income needs?[9]

The distribution of RRSP savings plotted against the total net worth rankings (a measure of wealth) of Canadian households offers a clue as to how this question might be answered. Table 3 indicates this distribution is asymmetrical, with the top 20 percent of households ranked by net worth having a median RRSP value of $111,000. The median values by quintile for the other 80 percent of households ranked by net worth are considerably lower at $35,000, $15,000, $6,000,

8 Based on calculations provided in Canada (2006, table 20). Laurin and Robson (forthcoming) study these cost and disclosure issues in greater detail.

9 Likely, most of the 3.3 million workers with only an RRSP are in the 3.5 million target group of middle-income workers without RPP membership previously identified.

Table 2: Workforce Participation in RPPs and RRSPs

Type of Worker	Number	RPP Coverage	Workers with	Number
	(millions)	*(percent)*		*(millions)*
Low income	1.2	13	RPP only	2.8
Middle income	4.3	55	RPP and RRSP	2.9
High income	0.2	40	RRSP only	3.3
Total covered	5.7	32	Neither RPP nor RRSP	8.8
			Total workers	17.8

Source: Data from Statistics Canada, assembled with the assistance of the Office of the Superintendent of Financial Institutions using latest available data.

Table 3: Household RRSP Values by Net Worth Quintiles and Mid-Career Benchmark Pension Accumulation Values, 2008

Net-Worth Quintile	Median RRSP Value	Private-Sector Benchmark	Public-Sector Benchmark
	($ thousands)		
1	111	–	–
2	35	113	250
3	15	–	–
4	6	–	–
5	0	–	–

Sources: Statistics Canada, Survey of Financial Security - RRSP Investments, Cat. 75-001-X (Ottawa: Statistics Canada, February 2008); and author's estimates.

and $0, respectively. Arguably, the $35,000 median RRSP value of the second-highest net-worth group (the second quintile) offers a not-unreasonable basis of comparison against two possible adequacy benchmarks: the mid-career value of an RRSP of a private-sector worker who has contributed a modest 7 percent of a constant $60,000 salary each year; and the mid-career *fair value* of the accrued pension of a public-sector employee earning a constant $60,000 per year.[10]

10 Ideally, one would like to have the RRSP values distribution by income and age for workers without an RPP. I use the second net-worth quintile median RRSP value as a rough proxy for what a typical mid-career RRSP accumulation might be for a middle-income worker. The mid-career RRSP benchmark calculation for private-sector workers assumes a 20-year accumulation period and a 3 percent net return on retirement savings. The mid-career fair value of the accrued public-sector pension is based on actuarial estimates using reasonable assumptions.

Table 3 shows that both benchmark values exceed by a considerable amount the median $35,000 value of RRSPs of households with second-quintile net worth: the calculated benchmark $113,000 value of an RRSP of a mid-career, middle-income, private-sector worker is more than three times the median value and exceeds even the $111,000 median RRSP value accumulated by the top 20 percent of households ranked by net worth,[11] while the estimated benchmark $250,000 fair value of the accrued pension of a mid-career, middle-income public servant is *seven times* the median value of RRSPs held by households in the second quintile by net worth.

Why do many of the 3.5 million middle-income Canadians without an RPP appear not to be saving enough to maintain post-work living standards in a demographic environment that, according to Canada's chief actuary, will see the number of Canadians over age 65 rise to 25 percent of the population by 2040, compared with 14 percent today? That is the question I turn to next.[12]

Part III. Saving for Retirement: How Informational Asymmetry and Human Failings Defeat Traditional Economic Theory

Traditional Economic Theory and the Real World

Traditional economic theory derives elegant conclusions about pricing (efficient), resource allocation (optimal), and utility (maximized) in the presence of free choice and open markets. Often left unstated is that these conclusions rely heavily on the fundamental assumptions that the people who make economic decisions about buying, selling, saving, and investing are consistently rational and in possession of all relevant information. Over the course of the past 50 years, economists have begun to explore the consequences when these fundamental assumptions are invalid. The consequences are stark. Without the "rational" and "possessing all relevant information" assumptions, the efficiency, optimality, and utility maximization conclusions fail. Instead, we get suboptimal outcomes and various degrees of market failure.

Nobel Prize winner George Akerlof was one of the early economists to note these realities in his famous article "The Market for 'Lemons'" (1970). He showed that unequal information (informational asymmetry) in a market between buyers and sellers seriously skews outcomes. His example was the used-car market, where sellers know a great deal more about the quality of the product they are selling than do potential buyers. As a result, wide bid-ask spreads develop and transactions often fail to close. Informational asymmetry is not the only factor that can distort market outcomes. Nobel Prize winners Herbert Simon (1982, 1997) and Daniel Kahneman (2003) were among the first to point to the cognitive difficulties most humans have in

11 This kind of benchmark calculation assumes the worker is debt free at the point of retirement. To the degree that there is still debt to be paid off, the target value of accumulated retirement savings has to be adjusted upward accordingly.

12 These coverage and savings shortfall estimates are broadly comparable to similar findings in the United Kingdom (see Jones 2009) and the United States (see United States 2009).

making decisions involving choice overload and uncertainty. Our minds often go mushy, leading to simplistic, faulty rules-of-thumb in decisionmaking or to making no decision at all.

In their public policy book *Nudge: Improving Decisions about Health, Wealth, and Happiness* (2008), Richard Thaler and Cass Sunstein accept these informational asymmetry and human frailty realities, and show that carefully designed choice architecture can nudge people toward better decisions without restricting their freedom of choice. The new Obama Administration has invited Sunstein to help design choice architecture in fields ranging from public health, to education, to the environment. Applying their behavioural findings to saving for retirement, Thaler and Sunstein note that, although governments have created strong savings incentives through tax-deferral measures, people seldom take full advantage of them.[13] Fear and Pace (2009) confirm the validity of this observation in the Australian context, and find that Australia's 2005 *Choice of Fund* legislation is not leading to better outcomes for retirement savers; rather, Australians "are choosing not to choose."[14]

Solving the Retirement Savings Problem

The lifecycle theory of why people should save for retirement (and how much) is both elegant and conceptually simple. Financially, people progress through three life phases: pre-work, work, and post-work. The theory requires people to save during their working years so as to maintain their desired standard of living during the post-work years. How much to save? Simple: just project how much you will earn during your working years, how long you will work, what return your savings will earn, and how long you will live. Plug these assumptions into the right formula and, after some number crunching, the required savings rate appears. This theory is not only elegant, but also potentially useful!

Behavioural finance experts point out, however, that the theory's widespread application requires three things to be true: first, that ordinary people can solve complex mathematical problems; second, that they can model adequately the future uncertainties in their lives; and third, that they have the willpower to implement the resulting savings plan. Unfortunately, none of these requirements squares well with reality. Most people are not capable of solving complex mathematical problems. They have difficulty dealing with future uncertainties such as their work-income trajectory over future decades. Finally, even if they could, we know from observation that most people do not possess the willpower to see the resulting savings plan through an implementation period of 30 or 40 years. Indeed, there is a fourth problem: even if people could conquer the complex math problem, deal with future uncertainties, and had the willpower to do the savings part of the plan, they could still be easily stumped by the technically and emotionally challenging investment part. In short, human failings prevent the elegant theory of lifecycle personal finance from waving its magic wand.

13 On September 5, 2009, the Obama Administration announced a series of measures related to employer Individual Retirement Account provision, auto-enrolment, and auto-contribution increases.

14 These informational and behavioural realities have important implications, which I address later in the Lecture, for how institutional retirement savings arrangements should be structured and managed.

Are Defined-Benefit Plans the Answer?

But what about collective defined-benefit pension plans? Do they not solve the computational, skill, and behavioural problems of individual retirement finance? Yes, they appear to do so. DB plans operate with an automatic pension formula based on a participant's salary and years of service, and require a series of annual contributions sufficient to fully pre-fund the plan. Typically, pension payments continue as long as the plan member (or spouse) is alive. Further, participants have no direct role in determining how the accumulated collective retirement savings of the plan are invested. Unfortunately, what seems to be too good to be true is actually the case. For example, many people who change jobs during their careers 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.

These are not the only DB plan problems. Most fundamentally, most DB plans operate as incomplete contracts that do not spell out fully the respective rights and responsibilities of the parties to the DB contract – such as pensioners, active workers, shareholders, current and future taxpayers, unions, management, and pension plan trustees. Thus, in times when the DB balance sheet is in surplus – that is, when assets exceed liabilities – it is often unclear who owns that surplus; the result is that all balance-sheet stakeholder groups will lay claim to it. Similarly, when the balance sheet is in deficit, it is often unclear how that deficit should be remedied; typically, all stakeholder groups attempt to pass the parcel to somebody else.[15]

This would be irrelevant if DB plans were immediately vested and fully funded at all times, with the projected pension payments matched by an asset portfolio of high-quality bonds. But that is not how DB balance sheets are managed. Usually, they are subject to material asset-liability mismatch risk, based on a convention that took shape during the 1980s and 1990s, which assumes that risk eventually leads to additional asset returns that, in turn, can be used to make expensive DB pensions affordable. The two serious equity market setbacks during this decade (in 2001-03 and 2008) are now forcing DB plan stakeholders to re-examine this convenient but faulty risk-equals-return convention. The global adoption of fair value accounting rules is accelerating this "reality check" in the corporate sector.

Similar disclosure forces are at work in the public sector. As a result, sponsors of DB plans in the public sector increasingly are being persuaded to disclose the true cost of employee pension promises accruing at the federal, provincial, and municipal levels of government. Using discount rates that reflect the high quality of these promises (often based on final earnings and indexed for inflation), their true cost today, as noted, can exceed 30 percent of current pay. Despite recent increases, actual pension contribution rates are still well below these true costs. As Laurin and Robson (forthcoming) note, the result is a steady shift of wealth from future generations of Canadians to current public-sector employees. Meanwhile, in the corporate sector, the re-examination of the risk-equals-return convention has already led many employers to close their DB plans or to consider doing so. New employees typically are offered a defined-contribution (DC)-

15 See Laidler and Robson (2007) and Pesando (2008) for more detailed elaborations of these fundamental DB plan difficulties.

based capital accumulation plan, to which the employer makes contributions, so that now we are back in the behavioural finance world in which human failings defeat elegant theory.

Part IV. Overcoming Informational Asymmetry and Human Failings: A Pension Design for the Twenty-first Century

Four Nudges

A central implication of behavioural finance is that choice architecture matters: people can be nudged toward making better decisions without restricting their freedom of choice. Here is how this powerful idea can be applied to the design of more effective pension structures.

First, *determine the target savings rate.* This is a tough one. The elegant, personalized answer, as noted above, is to decide what kind of post-work standard of living you want, estimate how long you will work, what your salary path will be, what your retirement savings will earn, how long you will live after you retire, and what your government pension benefits will be. Because most real people will suffer a brain freeze when faced with such a daunting list of questions, choice architecture requires a series of thoughtful default answers. The target post-work standard of living is the most fundamental, and difficult, question to answer. The best a conscientious choice architect can do is set a transparent, reasonable default target, which then, along with all the other assumptions (including the government pension programs), produces the default retirement savings rate – say, 7 percent of income – required to hit that pension target. With this formula, it is easy to give people who desire a higher income-replacement rate or a shorter working life the appropriately higher target-savings-rate implications.[16]

Second, *increase plan enrolment.* Research confirms that human inertia stops us from doing many things we ought to do, especially if the rewards from doing so are a long way off. Voluntarily joining a well-designed pension plan is one of those things. What is the choice architect solution here? Easy: change the default choice from non-enrolment to auto-enrolment with an opt-out option. Research shows this to be a very effective nudge to better decisions. For example, the U.S. Government Accountability Office (United States 2009) projects auto-enrolment would move DC plan participation rates from the 60 percent range to more than 90 percent.

Third, *improve the construction of default investment policies*. Research confirms the intuition that the average person is not good at investing and that better investor education is not the answer. Most people operate with an attention span that is far too short and an emotional range that is far too wide. They also underestimate the negative impact of high fees on their

16 I am currently comfortable proposing a default post-work income-replacement target of 60 percent, which seems a sensible compromise between "too much" and "too little." Benartzi and Thaler (2004) offer an interesting variation to setting the matching target constant lifetime contribution rate: they propose backend loading the contribution rate by automatically converting a proportion of future wage increases into retirement savings increases.

retirement-income prospects.[17] Thus, here is another opportunity for choice architecture to provide the right nudge. Both theory and common sense tell us that investment programs should be cost effective and that older workers should invest more conservatively than younger workers. These considerations should be reflected in constructing both default investment policies and the means of implementing them. I develop these ideas further in Part VI.

Fourth, build in annuitization. Annuitization provides a simple, effective strategy for ensuring, by pooling longevity risk, that individuals do not outlive their retirement savings. Yet, again, inertia stops many people from availing themselves of this logical insurance option. Even worse, irrational loss aversion leads many to have a negative view of annuities and to worry more about buying an annuity and dying early than about not buying one and then living too long and running out of money. Once again, choice architecture can come to the rescue. For example, in the default choice, workers could start purchasing deferred annuities at age 45, with the view to annuitizing a significant portion (but not all) of their retirement savings by age 65.[18]

How do we get these choice architecture ideas into the supplementary sector of Canada's retirement income system? That is the question I turn to next. I address it in two parts: how to solve existing legal rules and regulations problems, and how to solve the problem of the pension plan coverage gap. In a subsequent section, I show that DB plans could be part of the solution, but only if Canada radically rethinks its approach to DB plan regulation.

Solving the Problems of Pension Rules and Regulations

In theory, all four of the pension design default strategies set out above could be inserted tomorrow into all CAPs currently operating in Canada's supplementary pension sector. In practice, their implementation faces a number of serious obstacles that are embedded in the current web of federal and provincial pension rules and regulations. Gunderson and Wilson (2009) integrate many of these obstacles into a handy "to do" list:

- Private-sector workers cannot participate in the kind of large-scale, pooled arrangements that serve public-sector workers well. Such restrictions should be removed (see Pierlot 2008).
- Workers cannot participate in pension plans that are not sponsored by their employers. This restriction should be removed to facilitate the creation of cost-effective collective pension arrangements (see Pierlot 2008).
- Current legislation and regulations foster administrative complexity and restrict employers from exercising flexibility in sponsoring and contributing to a variety of pension arrangements. These complexities and restrictions should be removed (see Pierlot 2008).
- Pension legislation and regulations should be harmonized across the country (see Van Riesen 2009).

17 There is a growing body of research documenting this behaviour; see Thaler and Sunstein (2008) for a list of references. Jack Bogle has also written extensively on this topic; see, for example, Bogle (2008).

18 The annuity income streams from the public OAS and CPP/QPP programs should be factored into such calculations. How a program to generate additional annuity payments should be structured raises a number of interesting questions. For example, should the business be put out for tender to the insurance industry? Alternatively, should a new Canada Annuity Corporation be created? Whichever the case, the decision should be based purely on cost-effectiveness considerations.

- A number of quantitative investment restrictions continue to hamper pension investments and should be removed (see Puri 2009).
- Current tax rules restrict saving for retirement in a number of important ways, including through contribution ceilings, age-restrictions, and the definition of which types of income qualify for retirement-savings-related tax-deferral treatment. All these rules need to be reviewed and brought into the twenty-first century (see Banerjee and Robson 2008; Gunderson and Wilson 2009).
- The treatment inequities between private-sector and public-sector workers should be dealt with (see Charron 2007).
- Current RRIF rules force seniors to run their retirement savings down too quickly (see Robson 2008).
- The 10 percent overfunding cap in DB plans hampers prudent risk-management practices (see Banerjee and Robson 2008).

The good news about this long list of obstacles is that they can be fixed relatively easily, and the various papers in the C.D. Howe Institute's Pension Paper Series cited above, as well as Gunderson and Wilson (2009), offer good suggestions to that end. This is a project the now-operational Federal-Provincial Working Group on Pension Reform should begin to tackle immediately.

Fixing these serious problems, however, would not address directly two other barriers to implementing the four "micro nudge" strategies designed to achieve better pension outcomes. The 3.5 million middle-income, private-sector workers in need of a reliable source of supplementary post-work income have a more fundamental problem: currently, they are left to their own devices to figure out how to produce that income. Can we not design an effective "macro nudge" strategy for these people? I address the other barrier, the high implementation costs of turning retirement savings today into pension payments tomorrow, in Part VI.

Possible Solutions to the Pension-Coverage Problem.

What have other countries done about pension coverage? Some major European countries, such as France and Italy, do not have a pension-coverage problem because the bulk of pension payments come from large pay-go national pension systems. With deteriorating demographics, however, the lack of pre-funding in these systems is now raising serious questions about their longer-term sustainability. Other European countries, such as Denmark, the Netherlands, and Switzerland, as well as Australia, have taken a different route to solving the pension coverage problem by requiring all workers to become members of funded workplace pension plans. The three-way bargaining culture among government, business, and labour in these countries has played an important role in the evolution of these mandated full-coverage outcomes.

As in Canada, the pension-coverage question is now on the political radar screen in both the United States and the United Kingdom. Any serious resolution in the United States likely will have to wait until after that country deals with its even more fundamental Medicare-coverage problem, although the Obama Administration did introduce some modest pension-reform measures in September 2009. The United Kingdom has decided to proceed with a bold plan, the Personal Accounts Delivery Authority (PADA), to cover the 7 million private-sector workers without workplace pension plans who are judged not to be saving enough for retirement. PADA will reach out to more than a million employers and is slated to become operational in fall 2012. Among its key features:

i) targeted workers will be auto-enrolled in the plan with an option to opt out;
ii) those not in the targeted group will be able to opt in;
iii) the total default contribution rate will be 7 percent of pay, with 3 percent coming from the employer; and
iv) personal accounts will be managed by a well-governed, not-for-profit trustee corporation funded by members' charges.

PADA is charged with launching the UK plan on time and on budget, but significant challenges remain in moving this project to operational reality.[19]

Canada currently sits between the United States and the United Kingdom in dealing with the pension-coverage problem. On the one hand, unlike the United States, we are now in a position to address the issue seriously. On the other, unlike the United Kingdom, we have not resolved how to go about it. Over the course of the past year, however, three proposals to increase pension coverage have gained currency in Canada. One has been made in various forms by Canada's insurance and mutual fund industries;[20] the other two involve the vertical expansion of the CPP and the creation of a new Canada Supplementary Pension Plan.

The *financial services industry proposal* (in its various forms) suggests a private-sector solution to the pension-coverage problem that focuses on individual choice and maximum flexibility. The industry believes that the real problem is Canada's outdated, complex pension laws and regulations and the treatment of pensions in the *Income Tax Act.* Once these problems have been fixed, the financial services industry will do the rest through education and advice.

The *vertical expansion of the CPP* (VEC) proposal would aim for a target of an inflation-indexed 70 percent of income replacement by materially expanding current pension benefits under the CPP. This proposal would see a doubling of the current 9.9 percent contribution rate to 19.8 percent up to the year's maximum pensionable earnings ($46,000 in 2009) and thereafter a contribution rate of 15.4 percent of pay, up to the tax-deferral limit on income ($116,667 in 2009). VEC participation would be mandatory for all Canadian workers. Surplus funds would be invested through the CPP Investment Board or possibly in a more dispersed manner.[21]

The *Canada Supplementary Pension Plan* (CSPP) proposal would set a default, inflation-indexed, income-replacement target of 60 percent for middle-income workers. This would imply a default contribution rate of 10 percent on income over $30,000 up to the maximum tax-deferral limit on income ($116,667 in 2009). All Canadian workers without workplace pension

19 For more on PADA, see website: www.padeliveryauthority.org.uk. See also Jones (2009).

20 See websites: www.fin.gc.ca/consultresp/pdf/016-CLHIA_to_Lafleur_PBSA_Review_2009Mar16.pdf; and www.fin.gov.on.ca/english/consultations/pension/submissions/IFIC.html.

21 One advocacy group sponsoring the VEC proposal is the Federal Superannuates National Association (FSNA), operating as the National Association of Federal Retirees; see website: www.fsna.com.

plans would be auto-enrolled in the CSPP, with an option to opt out. Contributions would be deposited into personal pension accounts, with automatic partial annuitization between ages 45 and 65. A new arm's-length agency would be created to manage the CSPP. The proposal could also be implemented on a regional or provincial basis.[22]

Comparing the Three Proposals

A strength of the financial services industry proposal (in its various forms) is its clearly articulated criticism of the current sorry state of pension rules and regulations in this country and of the impediments to efficient retirement saving by private-sector workers embedded in the *Income Tax Act.* Arguably, individual choice and flexibility would be attractive features of a supplementary pension plan, but the proposal is largely silent on the implications of behavioural research findings that suggest too much choice and flexibility are actually restrictive, rather than liberating. It is also not clear how a more conducive tax and regulatory environment by itself would generate the significant increases in coverage and savings rates that appear to be needed; Fear and Pace (2009) report that, in Australia, education and advice have not been effective. In Part VI, I argue that the cost-effective transformation of retirement savings into pension payments might be the most-needed pension reform element of all, yet the financial services industry proposal is also silent on this critically important issue.

Between the VEC and CSPP proposals, the former is undoubtedly the more radical of the two. It would replace the entire voluntary sector of Canada's retirement income system, in all its diversity, with a single mandatory pension giant. The VEC proposal certainly would solve Canada's pension-coverage problem, as well as deal with a number of other deficiencies in the supplementary pensions sector. For example, the fuzzy contract/property-rights problems that plague many corporate and public-sector DB plans would disappear, as would the solvency risks in the DB plans of financially weak corporations. On the capital accumulation side, the human-frailty problems surrounding savings and investment decisions would also disappear. Savings would be mandated and investment decisions placed in the hands of one or more large-scaled, cost-effective, expert investment agencies. The large scale of the new plan should also lead to low unit costs on the administration side.

I suspect, however, that many Canadians would see the VEC proposal as a bridge too far inasmuch as it effectively would wipe out the good elements of the voluntary component of the retirement income system along with the bad. As well, it would not target the 3.5 million middle-income, private-sector workers who most need the coverage fix. Further, the proposal seems to carry its own set of risks. For example, would we not be substituting the myriad fuzzy contracts/property-rights problems of DB plans at the micro level with a much larger one at the macro level? If the VEC proposal were implemented and the return on the very large pool of accumulating surplus assets were to perform below expectations for a considerable period of time, would the next generation of Canadians be willing to increase the already-high contribution

22 See Ambachtsheer (2008) for a more detailed description of the CSPP proposal.

rate to maintain the 70 percent target pension benefit for the current generation? Conversely, if returns were higher than expected for a considerable period of time, would the current generation be able to keep their hands off the accumulated excess assets and leave a rainy-day reserve for the next generation?

In contrast to the VEC proposal, the CSPP proposal does not mandate anything. Instead, it would use choice architecture to nudge a clearly defined target group of workers into making better retirement saving, investment, and annuitization decisions. This would lead to the design of a series of default decisions (that is, automated choices) made on the behalf of participants. Considerable research (see, for example, Benartzi and Thaler 2004; and Thaler and Sunstein 2008) indicates that, as long as the resulting default decisions, or default options, make sense and are trusted, most people would be happy to be nudged to stay with the program. Just as important, those who did not want to participate would not have to, while participants would be able to override the default decisions and substitute their own.[23] At the same time, the CSPP proposal is very clear about property rights: plan participants would own their pension accounts. When they purchased deferred annuities, they would do so at fair value and thus would not induce wealth transfers between current and future balance sheet participants. Annuity payment guarantees would be protected by the same capital adequacy rules that protect the guarantees issued by insurance companies and banks. Meanwhile, current CPP/QPP arrangements would remain as they are, as would the functional parts of the voluntary sector of the retirement income system.[24]

Part V. Redesigning Defined Benefit Plans

The Trouble with DB Plans

I noted earlier that 5.7 million workers continue to be in RPPs, of which 4.5 million are in DB plans (2.5 million in public-sector plans and 1.0 million each in corporate and multi-employer plans). I also noted that, while DB plans solve human-frailty problems related to retirement saving and investing, many of the versions in actual use today have other problems related to surpluses, deficits, funding, costing, and disclosure. If employment-based DB plans are to continue to play an important role in Canada's retirement income system, it is essential that these nagging problems be addressed.

23 Some observers are concerned that auto-enrolment with an opt-out option would be seen as a new form of taxation. I understand how that might be the case with the expanded CPP/QPP option, but it is more difficult to see how this might happen if pension contributions went into workers' own pension accounts.

24 Some observers have suggested that the discussion should not necessarily be framed as either/or, but that the combination of a modest CPP/QPP expansion coupled with a CSPP-type supplementary arrangement should also be considered.

In my view, the suggestions of the provincial expert studies to fix DB plans do not address two fundamental sources of these problems. First, DB pension contracts are seldom fully spelled out but typically are fuzzy about surplus (and deficit) ownership, funding policy, ranking of accrued pension debt in corporate reorganizations, maximum allowable DB balance sheet mismatch risk, and inflation indexation rules. Stated differently, DB plans are full of embedded options issued and held by various parties to the pension contract that are not fully specified and, hence, are difficult to value and enforce. Second, pension funds historically have been used as *profit centres*. If a pension fund's only purpose was to secure pension promises, it would always be a flow-through vehicle, fully funded and fully immunized with assets that match liabilities. This is clearly not the case. Instead, employers and plan trustees expose DB balance sheets to considerable mismatch risk in the hope of earning a risk premium on pension assets. If the risk premium is indeed earned, the employer does not have to pay the full economic cost of the pension promise – in short, the plan becomes a profit centre.

Both of these realities create problems. The incomplete-contract reality sets up potential conflict among various stakeholder groups, each trying to interpret fuzzy pension options in its own favour. Current pension legislation implicitly accepts this fuzzy reality by attempting to establish financial boundaries (for example, through solvency funding rules) within which DB pension contracts must be written. In this context, it is interesting to observe that governments everywhere are now loosening these contract boundaries in response to urgent corporate requests to stretch the standard five-year solvency deficit amortization period to 10 years.

Similarly, if the profit-centre mindset continues, DB balance sheets will continue to be subjected to material mismatch risk, which, in turn, guarantees there will be periods of material DB balance sheet surpluses … and of material asset shortfalls. The current Nortel situation offers a stark example of what happens when incomplete contract and asset shortfall features coincide with a corporate reorganization or bankruptcy: a material reduction in current and future pension benefits results. In public-sector plans, however, the profit-centre problem plays out differently. Here, the problem is that the investment-risk-premium assumption allows stakeholders to contribute 20 percent of their pay for what is really a risk-free benefit of 30 percent of pay. If the assumed risk premium is earned, the 20 percent contribution rate will be sufficient, but with realized risk premiums, in fact, negative in this decade, the 20 percent rate has not been enough. Just as the surpluses of the 1990s were spent on higher benefits and lower contributions to current workers, so the bulk of the unfunded liabilities in public-sector plans will now be loaded onto the shoulders of future workers and taxpayers.[25]

Really Fixing DB Plans

Once the real problems with today's DB plans are properly diagnosed and acknowledged, the fix logically follows. We need legislation that requires regular true and full disclosure about the economic (fair value) cost of the pension promises being earned, and regular true and full

25 See Pesando (2008) for a detailed exposition of the intricacies of risk bearing in DB plans.

disclosure about the economic (fair value) status of DB balance sheets. Just as important, the solvency requirements of DB balance sheets should be treated no differently than the balance sheets of insurance companies and other financial institutions. In other words, the pensions sector should not be exempted from the fundamental principle that promises made should be promises kept. This implies that accruing pension promises should be fully costed and fully funded at all times. In a balance-sheet-management context, this has one of two implications: either assets should match liabilities in terms of duration and inflation sensitivity or, if there is risk taking on the DB balance sheet, it should be buffered by a risk-capital cushion that is proportional to the estimated degree of balance-sheet-mismatch risk. A third possibility is to make pension payments explicitly variable, contingent on ability to pay.[26]

I am well aware that these rules would change the funding and management of many DB plans in a fundamental way. That is exactly the point. Fundamental change is required to deal with the havoc that ad hoc funding, management, and disclosure rules are causing in many plans. With the new prudential rules I propose here, DB plan stakeholders would no longer be able flip mismatch-risk coins with the current heads-we-win, tails-you-lose rules. Pensioners at financially weak corporations would not have to worry whether they were going to get fifty cents on the dollar out of their pension plans. Future taxpayers and public servants would not be left to pay for the pensions-related legacy costs created by today's public servants and their employers.

Getting There

Has this kind of material regime shift in pension regulation ever occurred? Yes, it has. In September 2002, the Dutch central bank (De Nederlandsche Bank, DNB) announced that, on January 1, 2004, it would start regulating DB plans in that country using the same principles that govern the regulation of insurance companies and other prudential financial institutions. For a while, there was a great hue and cry in the Dutch pension management community. DNB was accused of everything ranging from destroying the Dutch retirement income system to sheer pig-headedness. But DNB prevailed, although it did grant a year's delay in implementation. The Dutch pension sector eventually responded to this radical shift in the rules of the game by shifting their DB plans to collective DC plans with nominal guarantees. The basic idea is that, while these new plan formulas still offer members a nominal pension guarantee, it is far below that of a final earnings-based, fully indexed pension. Meanwhile, contributions continue at 18 percent of pay, which, together with reasonable investment returns, should produce eventual target pensions well above the minimum guarantee, although those target pensions are no longer guaranteed.[27]

How could Canada get to the adoption of a truly prudential regulatory regime for DB plans? Practically speaking, the first step would be for the Federal-Provincial Working Group on Pension Reform to accept the reality that this is the only way out of the current DB plan morass

26 This is, in fact, the direction in which a number of Canadian public-sector DB plans are heading. The question is whether measures in that direction will be large enough and implemented quickly enough to stabilize these plans and make them sustainable.

27 Recent articles by Blommestein et al. (2009a, 2009b) develop these ideas further.

and to long-term sustainability. The next step would be to convince their political masters.[28] From there, feasible, realistic old-to-new transition rules would have to be established. None of this would be easy, but it is the only serious, credible path to DB plan legitimacy and sustainability.

Part VI. Cost-Effective Pension Management and Delivery

The careful design of pension accumulation/decumulation processes is not the only driver of the effectiveness of a retirement income system. Indeed, how cost effectively pension arrangements are managed and delivered might be even more important, since a cost structure that is too high can easily destroy the value of even the best pension accumulation/decumulation formula.[29] In this part of the Lecture, I examine the implications of this reality under the categories of scale economies, governance, and agency issues.

The Scale Effect

The economies-of-scale concept is well known in microeconomics and industrial engineering. Generally speaking, once plant and equipment are in place, increased volumes push down unit costs until scale economies become diseconomies. In the context of pension administration and investment businesses, Toronto-based CEM Benchmarking Inc. maintains global databases that allow the measurement of the impact of scale on unit costs.[30] Table 4, which is drawn from these databases, shows that scale efficiencies translate directly into enhanced investment performance. The implication is that scale can have a material, positive impact on the cost effectiveness of pension management and delivery. The table indicates that, on average, a tenfold increase in the membership size of a plan is statistically associated with a $108 drop in annual benefit administration costs per member. Similarly, on average, a tenfold increase in the dollar value of a fund is statistically associated with a drop of seventeen basis points (that is, 0.17 percent) in total investment costs expressed as a percentage of assets under management. Further study confirms that the scale impact is pervasive at a more micro level in the investment database (for example, at the asset-class level, for custodial services and consulting services). In addition, there is an increasing incidence of lower-cost in-sourcing of some of these services as scale increases. However, these scale impacts are offset somewhat by larger funds using a greater proportion of higher-cost asset classes (such as real estate, infrastructure, private equity, and hedge funds).

28 I have already noted the irony that Working Group members and their political masters are themselves members of generous public-sector DB plans. As Upton Sinclair observed many years ago, “It is difficult to get a man to understand something when his income depends on not understanding it” (1905).

29 A common rule of thumb is that a one percentage point increase in investment costs increases the cost of funding a target pension by 20 percent, all other things equal.

30 See website: www.benchmarking.com.

Table 4: Cost versus Scale in Pension-Plan Management

	Benefit Administration	Investment Management
Scale range in database	0.1-2 million members	\$0.1-\$350 billion
Cost range in database	\$24-\$550 per member per year	0.05-1.31% of assets per year
Scale impact metric	-108 (\$ change per tenfold increase)	-0.17 (% change per tenfold increase)
Statistical significance	High (t-value = -7)	High (t-value = -14)

Source: CEM Benchmarking Inc.

The Governance Effect

Large funds, then, have a significant cost advantage over small funds. There is, however, a further important question: does this cost advantage translate into a performance advantage? On the benefit administration side, there is no statistical relationship in the CEM database between plan service levels and size. Thus, on average, large pension plans provide the same level of service (with respect to, for example, call wait-times, personal counselling, amount of red tape, member satisfaction) as do smaller plans, so the lower cost of large plans is of direct benefit to beneficiaries without the need to reduce service levels. Does the lower cost of large funds translate into a direct benefit on the investment side as well? The answer is yes. In fact, here the benefits are even better: on average, for every tenfold increase in the dollar value of fund assets, risk-adjusted net returns increase by twenty-seven basis points (that is, 0.27 percent); recall that, for every tenfold increase in dollar value, unit costs decrease by only seventeen basis points. Thus, on average, larger funds outperform smaller funds by more than just their lower unit cost advantage.

What explains these findings? Research suggests that a possible answer is the generally stronger governance capabilities of larger funds. A study by Ambachtsheer, Capelle, and Lum (2008) involving 88 pension funds finds a positive correlation between risk-adjusted net returns in the CEM database and the governance quality of those funds. Higher-quality governance is associated with the following behaviours:

- a board of governors selection process that combines both representativeness and skills/experience criteria;
- self-evaluation of board effectiveness;
- clarity between the respective roles of the board and management;
- the adoption of a high-performance culture with transparent and competitive compensation policies; and
- insource and outsource decisions that are based purely on cost-effectiveness assessments.

In empirical analyses almost ten years apart, funds that scored well on these behaviours outperformed those that scored poorly by 1 to 2 percent per annum.

The Agency Effect

Mutual fund companies, on average, face hurdles in matching the long-term performance average of pension funds. As for-profit companies, mutual funds have marketing, distribution, and return-on-capital costs not faced by pension funds. As a result, the management expense ratios (MERs) of actively-managed mutual funds in Canada often exceed 2 percent of assets per annum, much higher than the management costs of large Canadian pension funds (Bauer and Kicken, 2008). They aim of course to make money for themselves as well as for their clients, thereby creating potential conflicts of interest. As an example, successful active management strategies attract a growing inflow of capital from clients, which in turn generates additional fees for the manager. However, this growing inflow of capital can also reduce future fund performance as increasing amounts of new money are allocated to the perceived pricing inefficiencies. Clients who exhibit the human foibles described in the asymmetric information and behavioural finance literature may exacerbate the problem because they do not know the potential conflict exists.[31]

As a caveat, recall from above that large pension funds with strong governance cultures are in the best position to attract the requisite management and investment skills to be successful. In my experience, members of pension funds without scale and good governance can be subject to material agency costs as well. Rather than seeking to have their fund managed by larger, well-governed entities, some trustees of these smaller undergoverned funds adopt do-it-yourself cultures that can lead to poor performance and high costs for plan members.

Implications

Supervisory authorities in Australia and the Netherlands have taken the lead in addressing the seriously negative financial effects that lack of scale, poor governance, and agency issues can have on retirement savings in general and on pension plan members in particular. Measures taken range from requiring pension trustee registration and certification to requiring boards to conduct regular effectiveness self-evaluations to requiring the regular benchmarking and reporting of the cost effectiveness of the investment and administration functions. The provincial pension reform studies cited earlier take note of these realities and recommend that Canadian pension regulators take similar steps, which should prompt the Federal-Provincial Working Group on Pension Reform to look at how a more pro-active approach to supervision could nudge pension governance in Canada in the right direction.

Taking a broader perspective, I note the powerful positive externalities that a more focused, cost-effective pension management and delivery structure could produce. Arm's-length, expert pension organizations with scale have the motivation and resources to act as the knowledgeable shareowners required to align corporate and shareholder interests both in Canada and abroad.[32] Further, these

31 A consequence is that the mutual fund industry does not compete strongly on price (that is, on fee levels) but more through branding strategies and the control of distribution channels.

32 Recent articles by Davis, Lukomnik, and Pitt-Watson (2009); Johnson and Jan De Graaf (2009); and Waitzer (2009) develop these ideas further.

institutions could become part of wealth-creation processes around the world more directly through their active participation in the real estate, infrastructure, and private-equity sectors.[33]

Part VII. Pensioncare: From Saying to Doing

In this Benefactors Lecture, I have tried to create a comprehensive *Pensioncare* vision of where Canada could and should take its retirement income system. To achieve it, we must now do five things:

- Agree on the principles that will guide the design and implementation of the concrete pension reform steps that should now be taken.
- Agree on the list of dysfunctional pension rules and regulations that must be either eliminated or modified so that they become functional, and develop a feasible work plan to achieve this.
- Create one or more attractive supplementary pension plan options for middle-income workers not covered by a Registered Pension Plan.
- Solve the dysfunction problem of DB plans by addressing its underlying root causes, rather than its symptoms.
- Agree on the importance of getting the institutional structure of pension management and delivery right, and take the necessary steps to achieve measurable cost effectiveness.

Is Canada ready to go from saying to doing?

Awareness of our lingering pension problems and debate on how to deal with them have been building slowly over the course of the past decade. Missing thus far, however, are a framework and a narrative that transforms the large body of prior research and debate into an integrative *Pensioncare* vision from which a concrete, comprehensive pension reform plan can be constructed. That has been the purpose of this Lecture. I urge the new Federal-Provincial Working Group on Pension Reform and Canada's political leaders to embrace this vision and to devise a concrete action plan around which we all can rally.[34] The financial well-being of Canadians in the twenty-first century depends on it.[35]

33 In discussions with the author, Malcolm Hamilton made the important observation that dynamic capitalism requires risk bearing and, hence, risk bearers. It would be a mistake to exclude all older workers and retirees automatically as possible participants in this risk-bearing process through, for example, forcing all of them into 100 percent risk-free annuitization strategies. Older workers and retirees with prospective and actual post-work incomes well above subsistence levels are, in fact, logical risk bearers with a portion of their retirement savings. This is especially so when they represent a growing proportion of the population, as will be the case in the decades to come. This reality should be reflected in the design of both the accumulation and decumulation phases of retirement savings processes, as is the case in the CSPP proposal set out in Ambachtsheer (2008).

34 The medicare movement of the 1960s, led by Tommy Douglas, started in Saskatchewan before going national. Thus far, BC premier Gordon Campbell appears to be the leading advocate for a new Pensioncare movement in that province. He has also invited other premiers to join him, and a number of them look ready to do so. History may be in the process of repeating itself in the sense of provincial leadership on a major social issue that eventually leads to a national consensus and federal participation.

35 Readers should be clear that, even if the Pensioncare vision I have articulated in this Lecture were to be embraced tomorrow, it would take many years for all Canadians to benefit from its full impact. This puts a special urgency on beginning rather than delaying the reform process.

References

Akerlof, G. 1970. "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism." *Quarterly Journal of Economics* 84 (3): 488-500.

Ambachtsheer, K. 2008. *The Canada Supplementary Pension Plan: Towards an Adequate, Affordable Pension for All Canadians.* C.D. Howe Institute Commentary 265. Toronto: C.D. Howe Institute. May. Available at www.cdhowe.org/pdf/Commentary_275.pdf.

Ambachtsheer, K., R. Capelle, and H. Lum. 2008. "The Pension Governance Deficit: Still with Us." *Rotman International Journal of Pension Management* 1 (1): 14-21. Available at website: utpjournals.metapress.com/content/k586w74751448182/.

Baldwin, B., and B. FitzGerald. Forthcoming. *Seeking Certainty in Uncertain Times: A Review of Recent Government-Sponsored Studies in the Regulation of Canadian Pension Plans.* C.D. Howe Institute Commentary. Toronto: C.D. Howe Institute.

Banerjee, R., and W. Robson. 2008. "Lifting the Lid on Pension Funding: Why Income-Tax-Act Limits on Contributions Should Rise." C.D. Howe Institute e-brief 56. Toronto: C.D. Howe Institute. April. Available at website: www.cdhowe.org/pdf/ebrief_56.pdf.

Bauer, R., and L. Kicken. 2008. "The Pension Fund Advantage: Are Canadians Overpaying Their Mutual Funds?" *Rotman International Journal of Pension Management* 1 (1): 64-71. Available at website: utpjournals.metapress.com/content/130pg5401n1r7756/.

Benartzi, S., and R.H. Thaler. 2004. "Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving." *Journal of Political Economy* 112 (1): S164-87. Available at website: www.journals.uchicago.edu/doi/abs/10.1086/380085.

Blommestein, H., P. Janssen, N. Kortleve, and J. Yermo. 2009a. "Evaluating the Design of Private Pension Plans: Costs and Benefits of Risk-Sharing." OECD Working Papers on Insurance and Private Pensions. Paris: Organisation for Economic Co-operation and Development. Available at website: www.oecd.org/dataoecd/23/31/42469395.pdf.

–-. 2009b. "Moving Beyond the 'DC vs. DB' Debate: The Appeal of Hybrid Pension Plans." *Rotman International Journal of Pension Management* 2 (2): 66-76. Available at website: utpjournals.metapress.com/content/7572814224212lk6/.

Bogle, J. 2008. "Bringing Mutuality to Mutual Funds." *Rotman International Journal of Pension Management* 1 (1): 54-63. Available at website: utpjournals.metapress.com/content/a77v2j0737j61g60/.

Canada. 2006. Office of the Superintendent of Financial Institutions. Office of the Chief Actuary. *Actuarial Report on the Pension Plan for the Public Service of Canada* as at 31 March 2005. Ottawa: Minister of Public Works and Government Services.

Charron, L. 2007. "Canada's Pension Predicament: The Widening Gap between Public and Private Sector Retirement Trends and Pension Plans." Toronto: Canadian Federation of Independent Business. January. Available at website: www.cfib.ca/research/reports/rr3028.pdf.

Chen, J., H. Hong, M. Huang, and J.D. Kubik. 2004. "Does Fund Size Erode Mutual Fund Performance? The Role of Liquidity and Organization." *American Economic Review* 94 (5): 1276-1302. Available at website: ideas.repec.org/a/aea/aecrev/v94y2004i5p1276-1302.html.

Davis, S., J. Lukomnik, and D. Pitt-Watson. 2009. "Active Shareowner Stewardship: A New Paradigm for Capitalism." *Rotman International Journal of Pension Management* 2 (2): 10-17. Available at website: utpjournals.metapress.com/content/8477108p51u08694/.

Fear, J., and G. Pace. 2009. "Australia's Choice of Fund Legislation: Success or Failure?" *Rotman International Journal of Pension Management* 2 (2): 26-34. Available at website: utpjournals.metapress.com/content/7n1145l4j8738144/.

Gunderson, M., and T. Wilson. 2009. "Encouraging Small and Medium Sized Firms to Participate in Pension Plans." Toronto: Financial Advisors Association of Canada. September. Available at website: link.advocis.ca/pdf/Pension-Study-se11-09.pdf.

Joint Expert Panel on Pension Standards. 2008. "Getting Our Acts Together: Pension Reform in Alberta and British Columbia." Edmonton; Victoria: Joint Expert Panel on Pension Standards. Available at website: www.finance.alberta.ca/publications/pensions/pdf/2008_1125_jepps_final_report.pdf.

Johnson, K., and F. Jan de Graaf. 2009. "Modernizing Pension Fund Legal Standards for the Twenty-First Century." *Rotman International Journal of Pension Management* 2 (1): 44-51. Available at website: utpjournals.metapress.com/content/1886248461787p57/.

Jones, T. 2009. "A Pension for All: Pension Reform in the United Kingdom." *Rotman International Journal of Pension Management* 2 (2): 42-8. Available at website: utpjournals.metapress.com/content/841756013257846w/.

Kahneman, D. 2003. "A Perspective on Judgment and Choice: Mapping Bounded Rationality." *American Psychologist* 58 (9): 697-720. Available at website: psycnet.apa.org/?fa=main.doiLanding&doi=10.1037/0003-066X.58.9.697.

Laidler, D., and W. Robson. 2007. *Ill-Defined Benefits: The Uncertain Present and Brighter Future of Employee Pensions in Canada.* C.D. Howe Commentary 250. Toronto: C.D. Howe Institute. June. Available at website: www.cdhowe.org/pdf/commentary_250.pdf.

Laurin, A., and W. Robson. Forthcoming. "Ottawa's Colossal Retirement Tab: The True Budget Cost of Public-Service Pensions." C.D. Howe Backgrounder. Toronto: C.D. Howe Institute.

Little, B. 2008. *Fixing the Future: How Canada's Usually Fractious Governments Worked Together to Rescue the Canada Pension Plan.* Toronto: UTP/Rotman Publishing.

Nova Scotia. 2009. Pension Review Panel. "Promises to Keep." Halifax. Available at website: www.gov.ns.ca/lwd/pensionreview/docs/PensionReviewPanelFinal.pdf.

Ontario. 2008. Expert Commission on Pensions. *A Fine Balance: Safe Pensions, Affordable Plans, Fair Rules. Toronto: Queen's Printer for Ontario.* Available at website: www.pensionreview.on.ca.

Pesando, J. 2008. *Risky Assumptions: A Closer Look at the Bearing of Investment Risk in Defined-Benefit Pension Plans.* C.D. Howe Institute Commentary 266. Toronto: C.D. Howe Institute. June. Available at website: www.cdhowe.org/pdf/commentary_266.pdf.

Pierlot, J. 2008. *A Pension in Every Pot: Better Pensions for More Canadians.* C.D. Howe Institute Commentary 275. Toronto: C.D. Howe Institute. November. Available at website: www.cdhowe.org/pdf/Commentary_275.pdf.

Puri, P. 2009. *A Matter of Voice: The Case for Abolishing the 30 percent Rule for Pension Fund Investments.* C.D. Howe Institute Commentary 283. Toronto: C.D. Howe Institute. February. Available at website: www.cdhowe.org/pdf/commentary_283.pdf.

Robson, W. 2008. "A Better Riff on Retirement: The Case for Lower Minimum Withdrawals from Registered Retirement Income Funds." C.D. Howe Institute e-brief 58. Toronto: C.D. Howe Institute. July. Available at website: www.cdhowe.org/pdf/ebrief_58.pdf.

Simon, H. 1982. *Models of Bounded Rationality: Economic Analysis and Public Policy.* 2 vols. Cambridge, MA: MIT Press.

——. 1997. *Models of Bounded Rationality: Empirically Grounded Economic Reason.* vol. 3. Cambridge, MA: MIT Press.

Sinclair, U. 1905. *The Jungle.* New York: Doubleday, Page.

Sy, W. 2008. "Pension Governance in Australia: An Anatomy and an Interpretation." *Rotman International Journal of Pension Management* 1 (1): 30-7. Available at website: http://utpjournals.metapress.com/content/l6g4l7225q521205/.

Thaler, R.H., and C.R. Sunstein. 2008. *Nudge: Improving Decisions about Health, Wealth, and Happiness.* New Haven, CT: Yale University Press.

United States. 2009. Government Accountability Office. "Private Pensions: Alternative Approaches Could Address Retirement Risks Faced by Workers but Pose Trade-offs." GAO-09-642. Washington, DC: GAO. July. Available at website: www.gao.gov/new.items/d09642.pdf.

Van Riesen, G. 2009. *The Pension Tangle: Achieving Greater Uniformity of Pension Legislation and Regulation in Canada.* C.D. Howe Institute Commentary 294. Toronto: C.D. Howe Institute. August. Available at website: www.cdhowe.org/pdf/commentary_294.pdf.

Waitzer, E. 2009. "Defeating Short-Termism: Why Pension Funds Must Lead." *Rotman International Journal of Pension Management* 2 (2): 4-8. Available at website: utpjournals.metapress.com/content/848220464337k597/.

Whitehouse Press Office. (2009). "Weekly Address: President Obama Announces New Initiatives for Retirement Savings." Washington: DC. Accessed September 24, 2009. Available at: www.whitehouse.gov/the_press_office/Weekly-Address-President-Obama-Announces-New-Initiatives-for-Retirement-Savings/.

The Benefactors Lectures

2008 *Central Banking at a Time of Crisis and Beyond: A Practitioner's Perspective,* by David A. Dodge, O.C.

2007 *Designing Canada's Low-Carb Diet: Options for Effective Climate Policy,* by Mark Jaccard.

2006 Chaoulli v Quebec *and the Future of Canadian Healthcare: Patient Accountability as the "Sixth Principle" of the Canada Health Act,* by Patrick J. Monahan.

2005 *Tax Reform and Investment: Will the US Sneeze? Will Canada Catch Cold?* by Charles E. McLure, Jr.

2004 *Romanticism and Realism in Canada's Foreign Policy,* by Allan Gotlieb.

2003 *The Importance of Being Less Earnest: Promoting Canada's National Interests through Tighter Ties with the US,* by J.L. Granatstein.

2002 *Canadian Health Care in a Global Context: Diagnoses and Prescriptions*, by Åke Blomqvist.

2001 *A Tragedy of the House of Commons: Political Institutions and Fiscal Policy Outcomes from a Canadian Perspective*, by Kenneth J. McKenzie.

2000 *Globalization: Myths, Facts, and Consequences*, by John F. Helliwell.

1999 *The Canadian Standard of Living: Is There a Way Up?* by Pierre Fortin.

1998 *Finding a Balance: Renewing Canadian Fiscal Federalism*, by Paul Boothe.

1997 *The Economics of Privatization*, by D.G. McFetridge.

1996 *Economic Growth, Technological Change, and Canadian Economic Policy*, by Richard G. Lipsey.

1995 *Celebrating Flexibility: An Interpretive Essay on the Evolution of Canadian Federalism*, by Thomas J. Courchene.
Célébrer la souplesse: essai interprétatif sur l'évolution du fédéralisme canadien, par Thomas J. Courchene.

1994 *In Search of a Social Contract: Can We Make Hard Decisions as if Democracy Matters?* by Richard Simeon.

1993 *Trade, Money, and Wealth in the Canadian Economy*, by Richard G. Harris.

Copies of Benefactors Lectures are available free of charge from the C.D. Howe Institute. Recent lectures that are now out of print can be obtained from the Institute's website: www.cdhowe.org.