WELCOME

WELCOME TO THE FOURTH EDITION OF PENSION POINT OF VIEW, where you’ll find industry insights and ideas on pension trends and plan design.

This latest edition tackles a highly contested topic: are Canadians saving enough for retirement? Additionally, we look at data to expose retirement myths and financial literacy gaps, and compare pension fund importance relative to size of economy.

Once again, I welcome your emails with feedback and suggestions for future topics of interest to you.

Aaron Walker-Duncan
Vice-president, Board Services
British Columbia Pension Corporation
aaron.walker-duncan@pensionsbc.ca

FEATURE

You know you speak pensionese when you hear terms like household saving rate and income replacement rate, and immediately know you’re about to hear a discussion on retirement preparedness. Read on to find out how “what you think you know” might be wrong. READ HERE

FACTUAL SNIPPETS

Those of us still among the working occasionally ponder what we’ll miss most when we finally (I) retire. We can get a sneak peek into our futures with data. READ HERE

STATS AT A GLANCE

Consider this an around-the-world glance at global stats on how important pension funds are to the size of the economy in OECD countries. READ HERE
**FEATURE**

**How much, exactly, is enough?**

Do you remember when, as a teen, retirement seemed a lifetime away? Perhaps your parents appealed to your better senses and talked about the importance of saving for retirement. If you were like most teens, such efforts will have been in vain. But time marches on, and today you might share the concerns of 60 per cent of Canadians who say they haven’t put aside enough money for retirement.

The good news coming out of the 2014 Conference Board of Canada survey is that 39 per cent of those under the age of 25 are saving. Apparently some teens do listen. Yet, only 40 per cent of working Canadians agree that retirement planning is a priority.

According to an international 2015 Global Investor Pulse survey by BlackRock, 40 per cent of respondents said they were very or somewhat knowledgeable about how much money was needed to last through retirement; one-third, however, said they had no idea at all. This confusion is mirrored by conflicting messages from pension experts over whether Canadians are prepared for retirement, and there’s no shortage of “evidence” to back up either view.

As you read on, you won’t find answers on who is right or wrong—we’ll let you be the judge on whether potential pension reforms and policies should address the general public or target specific “at-risk” groups. Instead, we’ll put a magnifying glass to leading arguments and concepts underlying retirement preparedness philosophies and poke at two related measures: the household saving rate and the income replacement rate.

**Is it just in our heads?**

On average, Canadian respondents in the international investor poll said they would need an annual income of $46,900 for a 25-year retirement. However, among those who’ve started saving, the average nest egg is only $70,700—barely enough for 18 months of retirement. Even among pre-retirees aged 55 to 64 who have lower income expectations ($39,100), the current amount saved averages just $125,000.

Estimates about adequacy requirements vary widely. Nine independent U.S. studies conducted between 2006 and 2015 concluded that one-third to two-thirds of workers are at risk of falling short of their retirement saving targets, in part because of assumptions about how much is needed.

Closer to home, about 50 per cent of middle-income Canadians will experience a significant drop in their living standards in retirement, according to Michael Wolfson, who holds a Canada Research Chair in Population Health Modelling/Populomics. He defines a “significant drop” as a drop of 25 per cent or more in retirees’ net income by age 70 compared to their pre-retirement income.

Wolfson questions the methodology of a 2014 study that concludes Canadians are afflicted with a “perception gap”; after all, four out of five of the nation’s households are on track to maintain their standard of living in retirement, according to research conducted by multinational consulting firm McKinsey & Company.

Despite opposing views, all experts seem to agree on one thing: most of the inadequately prepared households are middle- to high-income households that either don’t contribute enough to their defined contribution plans or don’t have access to employer-sponsored plans in the first place and have below-average personal savings.

---

1 The study takes into account all pillars of retirement—universal retirement income programs (e.g., OAS/GIS), publicly funded pension plans (e.g., CPP/QPP), privately funded retirement plans (e.g., RPPs) and non-registered private savings.
What does adequacy mean, anyway?

Adequacy is not a question of how much is enough but rather how much is enough for whom, says Organisation for Economic Co-operation and Development (OECD) principal economist Pablo Antolin-Nicolas.

“We understand that, in the end, governments and policy-makers want to have just one number, but one number is wrong. … the answer will be different for different income groups, and it will be different for the different genders and economic statuses.” An OECD-led multinational study is trying to find a more useful, flexible set of definitions.

Former Bank of Canada Governor David Dodge expresses a similar sentiment: households vary greatly in their risk preferences and their implicit discount rate. In short, there’s no ideal target level of income replacement in retirement that fits all households. He concludes it’s better for the general social welfare to leave savings decisions up to individual households—except for lower-income households.

Some argue that undersaving isn’t the only concern, that saving too much could result in an over sacrifice of working-life welfare, particularly for young families. (But then, how many oversavers do you personally know? Exactly.) Still, there are good reasons for getting the savings decision right. But just what does “right” look like? Traditionally, we’ve looked to the household saving rate for answers.

The household saving rate

“Elderly Canadians are to be blamed!” Malcom Hamilton, senior fellow of the C.D. Howe Institute, says tongue-in-cheek to explain the phenomenon of Canada’s declining household saving rate (HSR). The HSR is calculated for the whole population, not just those with employment income. In any year, the rate is a combination of the flows of both savers (working Canadians) and dissavers (seniors). By that logic, a growing senior ratio contributes to a declining HSR.

The HSR, calculated by Statistics Canada as a by-product of Canada’s National Accounts, is often considered one of two reliable measures for assessing how prepared Canadians are for retirement (the other one is the income replacement rate).

In the last several years, national net saving has been on the decline as a share of GDP while non-financial investment (essentially housing) has been at or near peak levels relative to disposable income. In March 2015, Canada’s HSR plunged to a scant 3.6 per cent from nearly 20 per cent in the early 1980s.

Hamilton argues the reasons for the decline are a reduction in saving unrelated to retirement, reduced returns and increased withdrawals from pension plans and RRSPs.

Just like our OECD economist above, Hamilton emphasizes there’s no easy answer to the question of how much to save; it depends

\[
\text{HSR} = \frac{\text{Household net savings (i.e., disposable income minus consumption expenditure)}}{\text{Household disposable income}}
\]
on circumstances, individual goals, age of retirement, how long we live, number of dependants, our jobs, marriage, where interest and inflation rates go, stock market performance and future legislation.

Another problem with using savings as an indicator of retirement preparedness is the focus on averages rather than data that captures the wide variation of experiences around the average. Yet, assessing adequacy is not about broad averages—some seniors are very well off; others have experienced major declines in living standards. “Beware of the mean,” a well-known adage in statistics, illustrates the point with its story about a person who drowned while crossing a river whose average depth was 18 inches. The question (and disagreement) is over the proportion of seniors experiencing declines in living standards.

Instead of a single value, Dodge uses a range as a benchmark for adequate saving requirements. His analysis indicates middle-income Canadians who save for 35 years and retire at age 65 will need to save from 16 to 20 per cent of their pre-tax earnings every year if they want to replace 70 per cent of their working income. Exactly how high income replacement rates need to be remains an open question.

**The income replacement rate**

The income replacement rate (IRR) expresses how much of our working life income will need to be replaced during retirement.

\[
\text{IRR} = \frac{\text{Gross (before-tax) registered income in first year of retirement}}{\text{Gross pre-retirement final year employment earnings}}
\]

It used to be easy; “save 70 per cent of your pre-retirement income” was standard expert advice. Well, that old rule may no longer work. Using the common two-thirds ratio of one’s final salary income as a correct measure for an adequate IRR is wrong, according to Antolin-Nicolas, because it doesn’t cover the full scope of retiree needs.

“Replacement rates can only be treated in terms of adequacy if they are understood in relative terms,” he says. For example, a low-income person needs 100 per cent, a middle-income person needs two-thirds and a higher-income person, 50 per cent. In a similar way, a country’s broader social welfare system affects adequacy needs, as apparent, for example, when considering different health care coverage. Access to workplace pension plans is another important factor.

An analysis of Canadian couples with and without employment-based pensions shows IRRs across five income quintiles.³

**Table 1 – replacement rates from Ostrovsky and Schellenberg, research paper by Kevin Milligan and Tammy Schirle.**

Consistent with Antolin-Nicolas’s observation, Canadian couples in the lowest income quintile are most likely to have an IRR above 70 per cent because of transfers such as old age security (OAS) and guaranteed income supplement (GIS) that replace much of their comparatively low pre-retirement income. Similarly, the percentage of couples with IRRs above 70 per cent decreases as income quintiles increase. The data shows that, for the most part, IRRs are higher for couples with employment-based pensions.

³ The analysis excludes wealth, drawdown of assets such as housing or non-registered savings, and flows of consumption from durables. The five income quintiles are derived from average earnings between 1989 and 1991, and updated to 2012 constant dollars.
You might sense by now that the income replacement approach isn't quite as simple as it's often made out to be. Then there's the question of which pre-retirement earning years to use and whether to look at net or gross replacement rates. Individuals have varying family responsibilities over the course of their life—they also pay tax and receive public transfers (e.g., OAS, CPP). It seems wise to look at net IRRs based on disposable income, saving and dissaving, home ownership and changes in family size over the life cycle.

Possibly most compelling, maintaining living standards after retirement doesn't mean consumption after retirement will be the same as consumption before retirement—the basket of goods we buy changes with age. We no longer have work expenses (commuting, clothing). There's more time for DIY house maintenance. Mortgages and children are no longer the centre of family budgets. Money no longer needs to be set aside for retirement savings, and non-financial assets (furniture, car, art) don't need to be re-acquired. Some argue that an IRR closer to 50 per cent might adequately preserve post-retirement living standards of middle-income Canadians.

A lower IRR seems consistent with the observation that retirement is not uniform; there's substantial variation in consumption and needs as retirees age. The challenge, then, is to quantify the rate of post-retirement spending changes.

Independent studies in Canada, U.S. and Germany produced surprisingly similar findings: retiree spending drops significantly around age 70 because of physical limitations or lack of interest, not lack of money. More specifically, the U.S. study found that spending falls by about:

- 1.25 per cent per year between 65 and 70,
- 1.75 per cent per year between 70 and 80, and
- 2.75 per cent per year between 80 and 85.

While spending rises eventually in some households because of long-term care needs, fewer than half of retirees require that kind of care, and typically after age 85 for two years or less—costs which are largely offset as all other spending stops.

Where to go from here?
Assessing the adequacy of retirement saving requires a standard for measuring observed behaviour. To arrive at a sensible retirement saving rate, you typically choose a retirement age and a retirement income target. The traditional age is 65; the traditional target is 70 per cent of employment earnings during the year immediately preceding retirement. Some now argue the former is too low and the latter, too high.

The most appropriate adequacy measure depends on its goal. If the goal is to measure adequacy against a fixed (universal) living standard, then the IRR may not be an appropriate measure. In that case, it would be more critical (from a policy perspective) to assess whether people are meeting certain levels of living standards. If the goal, however, is a comparable living standard to the current one, then the IRR may be a more appropriate indicator. Put another way, the goal of measuring adequacy will likely be different for a relatively homogenous group of employees under an employer pension plan than for broader population groups.

With individual financial circumstances and retirement patterns growing more diverse, using common benchmarks for assessing retirement adequacy becomes more complex. Some might question their use entirely. And though saving for retirement will always be good parental advice, one thing is for sure—there's no one answer to the question “how much, exactly, is enough?”

---

4 The Canada Pension Plan includes most years of working age (with special consideration for years caring for young children). In most workplace DB plans, the last two or five years form the basis.

5 The most easily obtainable data is before-tax income data at a point in time.
FACTUAL SNIPPETS

The following retirement and population data provides broader context for BC’s public sector pension plans. Here we aim to separate retirement myth from reality, illustrate demographic trends that give reason to pause, and reflect on the state of financial literacy in the country.

2015 retirement myths & realities

Retirement is full of surprises—at least that’s what the latest RBC poll finds. Now in its sixth year, the annual poll conducted by Ipsos Reid compares Canadians’ expectations to actual experiences in retirement. Some key findings are:

- Retirees don’t miss their pay cheques as much as pre-retirees expect to; however, they do miss social time with colleagues at work
- Retirees are more likely to “not miss a thing” about work, compared to what pre-retirees expect
- While the majority of retirees report spending their time by “taking time for myself,” travel tops the “expect to do in retirement” list for a similar majority of pre-retirees

The Boomers are coming

Here’s a milestone to set off mixed feelings: as of 2015, for the first time, Canada has more people over the age of 65 than under 15.

The age group that now encompasses the boomer generation (50 to 69) makes up 27 per cent of the population, compared to 18 per cent in that age group two decades ago. People over 65 (the traditional retirement age) make up 16 per cent of the population—double their proportion in 1971.

How financially literate are Canadians?

Though there are many Canadian studies on financial literacy, we don’t know whether any (other than the one highlighted here) allow for international comparisons. The outcome of this 2012 study, which poses three simple questions on interest compounding, inflation and risk diversification, is consistent with international evidence. In considering the number of correct responses to all three questions, the study reveals that Canadians (42 per cent) perform relatively well compared to Americans (30 per cent) but worse than Germans (53 per cent).

Question 1 tested understanding of interest rates: Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

More than $102; Exactly $102; Less than $102; Don’t know.

Question 2 tested understanding of inflation: Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

More than today; Exactly the same; Less than today; Don’t know.

Question 3 tested understanding of risk and diversification: Is the following statement true or false? ... Buying a single company’s stock usually provides a safer return than a stock mutual fund.

True; False; Don’t know.
In 2002, the OECD launched the Global Pension Statistics Project (GPS)—partly in response to the increasing importance of funded pension arrangements in retirement income security but also because of the growing effect of pension asset investment on securities markets.

Now in its 13th year, the GPS allows comparisons between OECD and non-OECD countries on key aspects of retirement systems. Here we highlight pension fund importance relative to size of the economy. We encourage you to read the full Pension Markets in Focus 2015 edition.

Assets managed by pension funds grew for a sixth consecutive year in the OECD area

Since the financial crisis in 2008, pension fund assets have been constantly increasing in the OECD. At the end of 2014, the weighted average asset-to-GDP ratio for pension funds reached 84.4 per cent in OECD countries (compared to 36.4 per cent in selected non-OECD countries), with the Netherlands having the highest ratio at 159.3 per cent of GDP. Pension funds remain the main financing vehicle for private pension plans (with USD 25.2 trillion of assets under management at the end of 2014) and represent 66.8 per cent of total private pension assets in the OECD.

In 21 OECD countries, pension fund assets are less than a quarter the size of their economy. One explanation is comparatively low levels of contributions as a percentage of GDP—for example, Austria, Belgium, Germany, Italy, Slovenia and Spain have contribution levels below 1 per cent of GDP in contrast to contribution levels of 7.5 per cent in Australia, 5 per cent in the Netherlands and 8.1 per cent in Switzerland. In Hungary, contribution levels dropped following pension reforms in 2011 that suspended payments to mandatorily funded individual schemes and redirected all the contributions to pay-as-you-go public pension schemes. In some non-OECD countries, the relatively recent introduction of mandatory contributions to pension funds explains the comparatively low levels of contributions as a percentage of GDP.

---

6 A weighted average is an average resulting from the multiplication of each component by a factor reflecting its importance.
Note: United States, United Kingdom and France data is from 2013. No data was available for Turkey.

Source: OECD Global Pension Statistics
References for feature article


Milligan, Kevin and T. Schirle. “Simulated Replacement Rates for CPP Reform Options.” University of Calgary School of Public Policy, 2014.


Pension Point of View is produced by the British Columbia Pension Corporation, Victoria, British Columbia. For further information or enquiries, please contact aaron.walker-duncan@pensionsbc.ca.