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Quick Hit — Social *security*, you say? A brief overview of Canada vs US

It's no secret by now that Canadians take pride in having a well-rounded [social] safety net, taking the form of the Canada Pension Plan —and the Québec Pension Plan for residents of the *belle* province. But how does the sustainability of these actuarially sound regimes compare with what's offered south of the border? To that point, the 2018 annual report of the *Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, the all-American version of our own CPP/QPP, caught our eye in the most peculiar way.

Turns out that under the Trustee's intermediate assumptions, Social Security's total cost in the U.S. is projected to exceed its total income in 2018 for the first time since 1982, and remain higher through 2039 —Social Security's cost has already exceeded its non-interest income since 2010. This primarily results from the declining ratio of workers paying taxes to beneficiaries receiving benefits, as the baby-boom generation ages and is replaced at working ages with subsequent lower birth-rate generations —2.8 covered workers per OASDI beneficiary in 2017, projected to reach 2.2 in 2035 and 2.0 by 2095. And while these effects will have stabilized after 2039, the ongoing increases in life expectancy will see annual cost continuing to grow faster than income —but to a lesser degree. In turn, the dollar level of the hypothetical combined OASDI trust fund[1] reserves declines until they become depleted in 2034, one year earlier than the projection in last year's report.

Needless to say, legislative action will be required to prevent reserve depletion by then. Barring such legislation, continuing income to the combined trust funds would only be sufficient to support expenditures at a level of 79% of program cost for the rest of 2034, declining to 74% for 2092. All in all, the 75-year actuarial deficit for the combined trust funds represents 2.84% of taxable payroll in 2018—increased from 2.83% in last year's report. Broadly speaking, for the combined OASI and DI Trust Funds to remain fully solvent throughout the period, lawmakers could either i) raise the tax rate/maximum level of taxable earnings (or dedicate revenues from other sources); ii) lower benefits for some or all beneficiaries by changing certain program parameters; or iii) adopt some combination of these approaches. Unsurprisingly, the Trustees recommend that lawmakers address the projected trust fund shortfalls in a "timely way" so that necessary changes are gradually phased in and don't become concentrated on fewer years and fewer generations. And with U.S. Social Security being a vital pillar in the lives of 63 million beneficiaries and 175 million covered workers and their families during 2018, addressing this situation in a timely fashion is crucial.

On the brighter side —for Canadians, at least—, CPPIB Capital Inc, manager of the Canada Pension Plan (closed to Québec workers), posted 5- and 10-year annualized real rate of return of 10.4% and 6.2%, respectively as at March 31, 2018. These comfortably sit above the average 3.9% real rate of return assumed by the Chief Actuary in assessing sustainability of the CPP over a 75-year projection period. In addition to total fund performance, the organization measures its active management strategy using a dollar value-added approach (DVA) to compare investment portfolio returns to those of a reference portfolio — investment portfolio net return of 11.6% as at March 31, 2018 vs 9.8% for the reference portfolio, resulting in a $5.7 billion single-year net DVA. As widely telegraphed, contributions to the enhanced CPP will start on January 1, 2019, supporting a gradual increase in the amount working Canadians will receive from CPP in their retirement years. In its latest actuarial report as at December 31, 2015, the number of working-age people to retirees (approximated by the number of people aged 20-64 to those aged 65 and over) is 3.6 in 2018, expected to drop to 2.0 in 2075.

Of note, CPPIB's investment strategy has been steadily evolving over the years, having moved from a passive to an active management back in 2006. The institution also assesses the ever evolving nature of the global environment, notably through a recent increase in climate change awareness, which even gave lieu to CPPIB's first green bond issue —$1.5 billion of its 3.00% 06/15/2028 at a spread of 71 bps, which was received with overwhelming enthusiasm from the investing community.

On the other hand, Quebecers will also benefit from their own enhancements to the Québec Pension Plan in 2019 (the QPP is managed by the Caisse de dépôt et placement du Québec). Based on the entity's last actuarial valuation as at December 31, 2015, contributions and investment income are sufficient to fund cash outflows until 2065 —with contributions having exceeded cash outflows until 2017 whereas a portion of the investment will be used in conjunction with contributions to cover cash outflows thereafter. The next actuarial valuation expected as at December 31, 2018 will examine factors such as the aging population of Québec as well as its gradually declining ratio of contributor to retirement pension beneficiary (the ratio stood at 2.3 in 2016 and is expected to be lower than 2 by 2021).

So the generational impact of the baby-boomers is a long-lasting one, likely causing disturbance and structural imbalances in the years ahead and from one nation to the other. However, resilience to this very imbalance, brought about by informed discussions and creative thinking —as demonstrated to date by both the CPP and QPP —will lead the way in the financing of future benefits.

[1] The OASI and DI Trust Funds are often shown on a combined basis as OASDI to illustrate the actuarial status of the Social Security program as a whole. By law, however, the two funds are separate entities and so the combined fund operations and reserves are hypothetical.

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