

Speech to the Technical Commission on Statistical, Actuarial and Financial Studies
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Good Afternoon, Ladies and Gentlemen

Today, I would like to discuss some aspects of the very good paper written by Christopher Daykin, the Government Actuary of the United Kingdom on the financial governance and risk management of social security. In my view, risk has major implications for any social security scheme. I recently asked my 16-year-old daughter to give me a definition of risk. It took her less than a minute to come up with this thoughtful definition: "If you don't risk anything, you risk even more." The well-renowned Herodotus once said: "Great deeds are usually wrought at great risks." Mr. Daykin defines risk as the possibility of something going wrong which will have unfortunate consequences. This last definition naturally leads us to risk management to reduce the probability of negative outcomes for a social security scheme.

I would argue that one way to implement risk management is through regular actuarial reviews. Considering the risks described by Mr. Daykin, such as demographic risk (increased longevity and reduced fertility rates), economic risk (employment rates, wage increases, inflation) and investment risk (through asset mix and rates of return of different asset classes), I would argue that the best-qualified person to perform the reviews is the Chief Actuary. "*Should social security institutions appoint a senior executive like a Chief Risk Officer to oversee risk management activities?*" My answer is "Yes" and the Chief Actuary would be the answer in Canada, maybe not for all risks, but at least for the risks I just described.

Another question asked to our panel was: "*How best should actuarial reviews and reporting be incorporated into the risk management process?*" To answer this question, I would like to describe the Canadian experience.

The Office of the Chief Actuary in Canada is required by law to produce an actuarial report on the Canada Pension Plan (CPP) every three years. The CPP is a compulsory and contributory pension plan that includes virtually all workers in Canada between the ages of 18 to 70, other than persons covered by the Québec Pension Plan. It provides retirement benefits and supplementary benefits including death benefits, disability pensions, orphans' benefits, survivor's pensions and disabled contributors' children's benefits. All monthly benefits are fully indexed to inflation.

The actuarial report provides information on the financial sustainability of the Plan over a long period. The report is one of the factors considered by the federal and provincial finance ministers when reviewing and making recommendations during the triennial review of the CPP. They may make recommendations on whether benefits and/or contribution rates should be changed.

Besides the actuarial report, an external independent peer review process was first introduced in 1999. Why such a peer review? In my view, it is of the utmost importance that the credibility of the information presented in actuarial reports be indisputable. On September 8, 2004, the Office of the Chief Actuary announced the establishment of a panel of three independent actuaries to

review the next Actuarial Report on the Canada Pension Plan (CPP). Among the measures taken to further enhance the credibility of the review process, a foreign organization was chosen to select the panel and to provide an opinion when the panel completes its work. The independent peer review process ensures that the highest standards and international best practices are applied to our actuarial work. Previous CPP Actuarial Reports and independent reviews are available at: <http://www.osfi-bsif.gc.ca/eng/office/actuarialreports/index.asp#cpp>.

As you can imagine, I am a strong advocate of independent peer review. Indeed, our actuarial work was peer-reviewed several times in the past. On each occasion, it was one of the best ways, if not the best, to learn and to improve our actuarial methods and assumptions. It is both a challenging and a rewarding process. I encourage other countries to enter into similar processes. Indeed, I fully support Mr. Daykin when he says that: “If the actuary is employed by a Government department with responsibilities for supervising or controlling the scheme, then the work of the ‘in-house’ actuary should be subject to external and independent peer review.

Another question asked to our panel was: *“In your experience which are the areas of greatest risk or where failure to manage risk is likely to have significant consequences for a social security institution?”* To answer this question, I would like to go back in Canadian history and explain why the inaction of the 70s and the 80s in regards to the coming aging of the Canadian population led to the reform of 1998.

When it was introduced in 1966, the CPP was designed as a pay-as-you-go plan, with a small reserve. This meant that the benefits for one generation would be paid largely from the contributions of later generations. Continuing to finance the Plan on a pay-as-you-go basis would have meant imposing a heavy financial burden on Canadians in the workforce after 2020, which was deemed unacceptable by the federal and provincial governments. Following extensive consultations across Canada in 1996, governments agreed on these principles in revising the Plan: fairness, affordability, sustainability, investing in the best interest of members and more funding.

Therefore, in 1997, the provincial and federal governments agreed to change the funding approach of the Plan to a hybrid of pay-as-you-go and full funding, called “steady-state funding.” Moving to a full-funding approach would have created unfairness across generations. During the transition, contributors of some generations would have paid higher contributions than others – they would have had to pay for the benefits of current retirees while simultaneously saving for their own retirement. A pure pay-as-you-go approach would also have been unfair, as it would have meant a sharp increase in the contribution rate over the coming decades. As a result of the consultation, the contributions were increased, the benefits were decreased on a long-term basis and the CPP Investment Board was created to invest the funds not required by the CPP to pay current benefits.

The steady-state funding is expected to generate contributions between 2004 and 2020 that exceed the benefits paid out every year during this period. Funds not required to pay benefits are transferred to the CPP Investment Board for investment. Over time, this will create a reserve large enough to help pay the growing costs that are expected as more and more baby boomers

begin to collect their retirement pension. CPP assets are projected to represent 15% of the GDP by 2020.

In 1997, the federal and provincial governments, as co-stewards of the CPP, also took steps to strengthen the transparency and accountability of actuarial reporting on the CPP. The CPP legislation was changed to require actuarial reporting every three years instead of every five years. In 1999, the finance ministers took additional steps by endorsing regular independent peer reviews of such reports and consultations by the Chief Actuary with experts on the assumptions to be used in the actuarial reports. Indeed, they took meaningful steps to increase the overall financial governance of the Plan. Not recognizing earlier the demographic risk resulted in a strong and somewhat painful necessary response.

In his paper, Mr. Daykin categorizes some other risks facing social security institutions. I will briefly discuss investment risk. As I said before, the CPP Investment Board was created in 1998 to invest excess cash flows of the Plan. Investing cash flows in the best interest of the plan members to maximize returns without undue risk cannot be achieved if the investment risk is not managed. In the last annual report of the CPPIB, it is mentioned that: "The CPP Investment Board expects to earn a rate of return over the long term that is 0.5% more than the minimum assumed by the Chief Actuary to sustain the Plan at the current contribution rate." The investment risk is therefore that the CPP reserve fund will not earn the minimum rate of return needed to sustain the CPP over the long term. As investment returns are only one of the several factors that contribute to the CPP's sustainability, there is always a risk that the current contribution rate and benefit levels will not be sustainable at some future date. The CPPIB has developed a framework of investment beliefs, risk limits and long-term return expectations that considers the amount of investment risk it should take to support sustainability. The CPPIB also evaluates returns and risks relative to a minimum risk portfolio that mirrors the growth of CPP liabilities. The proxy for this minimum risk portfolio is currently the Scotia Capital Real Return Bond Index.

I would conclude with a remark from Chris: *"The list of risks faced by social security institutions is endless, as each organization can have its own vulnerabilities in this respect. One of the difficulties of risk management is that problems do not usually repeat themselves."* As Robert Samuelson once said: *"We have gone from a world of seemingly small and understandable risks to one of huge and imponderable hazards. Terrorism? Who knows? It may be an immense danger or merely a periodic tragedy. The accuracy of corporate accounting? Another black hole...Increasingly, economic psychology depends on hopes and fears that lie outside experience. We don't know what we don't know...There is a rediscovery of risk."* In my view, this is why the process of risk management should be a key component of governance. It should be at the heart of the processes and governance of any social security institution.

I would like to thank you for the opportunity to comment on the paper written by Mr. Chris Daykin, the Government Actuary of the United Kingdom.

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