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# REPORT ON THE PBSS COLLOQUIUM

By Doug Andrews

The Pension Benefits and Social Security Section of the International Actuarial Association (IAA) held a colloquium in Edinburgh, Scotland from Sept. 25–27, 2011. The theme of the meeting was international challenges in providing a safe and sustainable retirement. It featured a combination of five plenary sessions, 25 concurrent workshops, social events and the annual meeting of the section. Some sessions were wide-ranging, dealing with matters such as professionalism, pension accounting and longevity modeling, while others focused on pension reform in specific countries. The next colloquium will be held jointly with the Health Section and the Consulting Actuaries Section in Hong Kong from May 6–9, 2012.

The following short reports were sent to this editor by the speakers and give an indication of the range of topics covered. The IAA website will contain the program and copies of papers and presentations made.

In Plenary 1, Lawrence Churchill of Nest Corporation reflected on the current position of the United Kingdom in the global league tables measured by income adequacy, and fiscal sustainability. He explained the U.K. government's approach to auto-enrolling employees into qualifying pension schemes (subject to eligibility rules). He went on to discuss how we might define and then achieve an adequate level of retirement income and how more certainty and security could be created within a defined-contribution (DC) environment.

In concurrent session A4, Karl Gustav Scherman described the effects of the Swedish pension reform that occurred in the 1990s. The public pension system was thoroughly reformed in a broad agreement between political parties representing some 80 percent of the seats in parliament. In the new Swedish public pension system, there is a minimum guarantee that everyone, resident in Sweden, is entitled to and an earnings-related part. The earnings-related part consists of two sub-schemes: an individual account scheme and a completely redesigned pay-as-you-go (PAYG) scheme. The costs of the minimum guarantee are financed by general revenue, while the earnings-related pension is financed by a contribution of, in total, 18.5 percent of covered earnings. A core idea behind the new earnings-related scheme is that the contribution rate should be unchanged for the indefinite future. A range of features is implemented in the PAYG sub-scheme in order to obtain this result. The effect on benefits of the types of rules introduced into the Swedish public pensions is profound. The consequence of these rules is that there is no way to change the pension system in the face of changes in external conditions with a view to attain a new balance between social goals and financial constraints. Instead all adjustments are made on the benefit side, either in the accumulation phase or for pensions in payment or both. As a matter of fact, what was said to be a weakness of conventional PAYG schemes, i.e., that all financial problems were met by raising the rate of contribution, has now gone into reverse: All financial problems are met by reducing benefits. *The result of unforeseen (unforeseeable)*

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*developments since the enactment of the new system has become political unrest. Changes have already been made in certain aspects and the whole scheme is currently under review.*

Also in concurrent session A4, Doug Andrews described a flaw in the method of calculation of assets used for the determination of the automatic balancing mechanism for the Swedish notional DC system. The effect of this flaw favors pensioners to the detriment of contributors and future contributors. He identified differences between state and private pension plans and discussed the possibility of applying automatic balancing mechanisms within private occupational pension plans.

In concurrent session B1, Matthias Börger from the Institute for Finance and Actuarial Sciences Ulm, Germany, addressed the topic of modeling the risk of changes in the long-term mortality trend. This risk is particularly relevant when considering longevity risk over limited time horizons, e.g., one year under Solvency II or several years for internal risk management. Here, the main part of the risk is not contained in the mortality evolution within the time horizon under consideration but in changes in the liabilities for the time beyond due to a change in the long-term trend assumption. Börger showed how this risk can be accounted for in stochastic mortality simulations by annually updating the mortality trend based on simulated most recent mortality experience. Moreover, he described how coherent mortality scenarios can be generated for several populations, e.g., males and females in the same country, and how epidemiological and demographic expert opinion can be included in the model fitting and be used to complement model outcomes.

In concurrent session B2, Ian Farr, JP, FFA, presented his paper titled, "Modern Pension Scheme Design." He put forward proposals that would encourage medium to large employers in the private sector in the United Kingdom to provide pension plans where the risks are shared between the plan members and the sponsoring employer. Public sector pensions in the United Kingdom were in the process of reform, and his proposals would allow for a read across from public to private sector pension provision and avoid the insanity of all private sector pension provision in the United Kingdom being on a money purchase basis, which would disadvantage those on modest incomes due to the uncertainty of their level of prospective pension. He proposed removing the mandatory indexation of pensions in payment for future defined-benefit (DB) accruals, or slight changes to the law to allow conditional indexation (where increases are conditional on the funding position of the pension plan). Another proposal was to allow the retrospective change of normal pension age (NPA) but only for those with 15 years or more years to go to the current NPA and subject to proof of increasing longevity from new independently calculated indices. He envisaged an expansion of plans where pension was based on re-valued average career earnings and member contributions increased with age to allow the employer contribution to be the same percentage of earnings for employees of all ages; and pensions payable to a dependent on the member's death after retirement being funded by exchanging the member's pension, so that single and married employees were provided with the same overall value of retirement benefits. He foresaw that the containment of employer costs in such plans could involve the capping of pensionable earnings for benefits and contributions. The rewards for the nation would be immense both for the economy and the good of society.

In concurrent session B5, Jan Hagberg presented a paper discussing pouring pension savings into the international financial black hole. An outline of his argument follows. It is most amazing that the true economic nature of a pension system covering the whole population seldom is touched on. Pensions basically represent consumption, here and now. This fact combined with the main economic equation on an aggregate societal level:

GDP = consumption + real investments + (export – import)

shows that pensions are about redistribution, about wealth transfer, i.e., a strong argument for PAYG systems, contrary to the trend we have seen around us for more than 20 years—with demands on more funding. The main issue for obtaining good pensions is, as can be seen from this equation, a sufficient production (and as a consequence, full employment and real investments— note "real"!). The austerity budget, including pension reductions as a response to the demands from the financial markets, where pension funds play a major role, is then a paradox. Deregulated financial markets, governed by a narrow efficiency concept, are pouring their investments into the financial black hole instead of making investments that support a labor market creating jobs and in the end good pensions.

Also in concurrent session B5, Carmen Boado-Penas presented a paper written with Carlos Vidal-Melia regarding inheritance gains in notional defined contribution (NDC) accounts. The paper is to analyze whether a survivorship dividend (inheritance gains) should be included as an extra return in the notional rate of NDC account systems. The survivorship dividend, at a specific age, measures the portion of the accredited account balances of participants resulting from the distribution, on a birth cohort basis, of the account balances of participants who do not survive to retirement. An actuarial model is developed that takes account of the survivorship dividend, which is used to estimate the effect that this has on the financial equilibrium of the NDC system. With data from Sweden, Poland, Latvia and Italy, estimates are made of the effect on the retirement pension of a representative individual, after the inclusion of the survivorship dividend. The main conclusions reached are, first, that the survivorship dividend has a strong financial-actuarial basis which suggests that the aggregate contribution rate to apply is the same as the one accredited to the individual contributor. Secondly, in the countries that have not distributed the survivorship dividend, this becomes a hidden way of accumulating financial reserves in order to compensate for the increase in longevity.

Jean-Claude Menard, in his capacity as a member of the Technical Commission for Statistical, Actuarial and Financial Studies of the International Social Security Association, provided the following reports on three concurrent sessions.

## SESSION B4: ACTUARIAL GUIDELINES FOR SOCIAL SECURITY ACTUARIES

The actuarial guidelines are not only important to standardize the way actuaries do their work; but they are also very important to better serve the public. To make adequate and timely decisions on any social security schemes, political reviews should be aligned with frequent actuarial reporting.

## SESSION D4: GETTING THE BALANCE OF STATE AND PRIVATE PROVISION RIGHT

No matter if it is a fully funded or a PAYG plan, no matter if it is a DB or a DC solution, no matter if it is a national public scheme or a private pension plan, the fact is that increased longevity will continue to put pressure on the financing of pension plans.

## SESSION E2: PENSION REFORM IN CANADA

According to international organizations, the Canadian retirement income system based on a mix of public and private pensions is an effective way to provide for retirement income needs.

What is generally agreed upon when it comes to pension reform is that retirement income

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security is a shared responsibility between the government, society, employers and individuals. What is difficult, though, to determine is what the different levels of responsibility are or should be, how they interact or should interact with each other, and based on that, the optimal means of improving retirement income adequacy, all while simultaneously trying to meet two overall objectives: 1) to provide at least an adequate standard of living in retirement, and 2) to ensure that the system is and remains financially sustainable to taxpayers and contributors.

In Plenary 5, John Woodall provided the perspective of the International Labour Organization (ILO) with respect to pension reform. The ILO has a mandate with regard to social security which goes back some 90 years. Its work in relation to pensions may be seen, firstly, in the context of an approach to social security generally, which is contingency-based, with nine "traditional" branches. More fundamentally, the structure should be one which guarantees the right of individual workers to social security coverage, best accomplished through mechanisms which rely on solidarity. The "Bismarckian" model, now over 100 years in existence, does so, through the vehicle of social insurance, as clearly elucidated by Professor Wilkie. The model of pension provision developed in the Beveridge Report has been influential post-WWII in many parts of the world, and shares its broad perspective with the Declaration of Philadelphia adopted by the International Labour Conference of 1944, whose concern with social justice is seen in the assertion that "poverty anywhere is a threat to prosperity everywhere." The ILO has, since then—in terms of its practical advice as much as its normative prescriptions through international Labour Standards—promoted the provision of pensions through nationally mandated schemes which are of the DB type. In recent years, the way in which economic and financial fluctuations expose employer contributors to the risk of increased contribution demands, has, amongst other factors, led to a marked trend towards schemes organized on DC principles, through individual retirement accounts (IRAs), starting with the well-known example of Chile. Such schemes do not reflect the principle of solidarity in the same way as DB, and this trend is uncomfortable for the ILO, although many countries have developed mixed, "multi-pillar" systems. A few countries have begun to try out the scheme design known as "notional defined-contribution" or "non-financial defined contribution" (NDC), which has the general appearance of DC but with relatively strong guarantees attached to the accumulation in members' IRAs (de-linked from actual investment conditions), which under reasonable conditions can replicate for the members benefits equal to those under DB. The picture is certainly not lessening in complexity, and the need to integrate the function of the social security pensions actuary, long recognized as one of assuring financial governance, into the wider areas of advice needed by scheme managers and trustees, is becoming more obvious—reflecting, perhaps, the words of the great Frank Redington: "An actuary who is only an actuary is not an actuary."