PERSPECTIVES FROM ANNA: INTERESTING IDEAS ON RETIREMENT RISK MANAGEMENT

By Anna M. Rappaport

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The topic for the 2013 Pension Research Council Symposium was *Recreating Sustainable Retirement: Resilience, Solvency and Tail Risk.* The conference provided interesting papers and ideas. The Pension Research Council has posted the draft papers on its website and will be posting video selections from the meeting on its *YouTube channel.*

I have chosen to focus on a few of the ideas that I believe offer a way forward. I hope this perspective will encourage dialogue.

The program started with discussions of capital market risk. It seems clear that there are a variety of approaches to modeling and a variety of investment vehicles and that plan sponsors' willingness to take on these risks is significantly declining, particularly in the private sector. Low interest rates make the job of investment management more challenging. The big issue for pension investments is to coordinate the investment of assets with the pattern of liabilities and expected cash flows. The big change of the last few years seems to be improving the coordination between investment management and liabilities structures. For another view on alternative investments, I recommend the *2011 ERISA Advisory Council report: Hedge Funds and Private Equity Investments.*

The program then moved on to a focus on longevity risk. What was missing for me was the tie between longevity risk and retirement ages. Where retirement ages are fixed and longevity is increasing, costs will grow over time. This can be funded for by including mortality improvement in the assumptions, but benefits will still be getting more generous. The discussion focused on mortality rates during retirement ages, but did not stress this issue. As indicated in a recent American Academy of Actuaries Issue Brief, within the United States, ERISA and the structure of Social Security are barriers to increasing private plan normal retirement age. The shift to DC avoids the problems. A significant part of the discussion focused on the use of financial instruments to manage longevity risk.

Longevity risk was a major focus of the discussion. My summary of the big picture for longevity risk is that there are a number of different ways to focus on liability risk management:

- Use actuarial assumptions that properly bring in projected mortality and reflect mortality improvements.
- Use liability driven investments (LDI) or structure the assets to fit the liabilities. This can include financial market instruments such as liability swaps that are designed to hedge longevity risk.
- Adjust the plan structure or plan design.
- Manage the risk through specialized financial market transactions. These transactions include selling the income stream to an insurance company, or buying an annuity in the plan. They also include use of hedging instruments.
- Buyout the benefits by offering lump sums, although this transfers risks to participants who may be even less well able to bear them than are pension plans.

The conference papers offered relatively little focus on the issue of actuarial assumptions and adjustment of plan design, although some of the discussion focused on plan design. My personal view is that the failure to regularly adjust retirement ages with increasing life spans has meant that total benefits got larger and larger, and they are now viewed as being unsustainable by some plan sponsors. One way to address this issue is to avoid dealing with it directly by terminating (or freezing) the DB plan and moving to DC. Unlike DB plans that offer powerful incentives about timing of retirement, and can help manage the risk of inability to continue working due to disability,

DC plans usually do not include such incentives. I feel sad that the retirement system has not addressed the retirement age directly rather than terminating plans.

A number of different approaches to modeling were discussed during the conference. One paper provided an analysis of Monte Carlo modeling. The author found that the model was satisfactory to explain variation, but that the initial assumptions made a huge difference in the outcome. Jim Moore compared a number of asset modeling approaches. I was most interested in a paper by Tim Hodgson which looked at extreme risks and how they might interact. This paper takes an entirely different approach and focuses on the world as a complex adaptive model. Hodgson defines several categories of extreme risks, and provides a framework for thinking about them. His categories are political, environmental, social, and technological. He reminded me that there are many moving parts, and that we need to think of them interacting and moving together. The issues Hodgson raised link directly to the cover story of the April/May 2013 *Actuary*, titled "Are Black Swans Real?" That article focuses on the projection of large-scale, large-impact rare events. The Society of Actuaries engaged Guntram Fritz Alein Werther to do a research paper on this topic, and it is now available.

In another setting, I have been reminded of the impact of the interaction of different risks. I have been working with Vickie Bajtelsmit on the Society of Actuaries research project *Measures of Benefit Adequacy.* That project models retirement adequacy considering a number of different risks and makes it clear that it is important to consider the interaction between risks and take a holistic view. The project focuses on individuals, not plan sponsors.

I moderated the wrap-up panel. The panelists were Kenneth Winston, from Western Asset Management, Rob Wylie, from the South Dakota Retirement System, and Peter Shena, from the Ontario Pension Board. The panel applauded the focus on sustainability, but commented that the discussion overall was pessimistic and hoped for a more positive approach to sustainability. We focused on the plan structure and the importance of risk sharing between participants and plan sponsors. Traditional DB often means all risk is assumed by the employer and traditional DC means all risk is assumed by the employees. Various options for risk sharing allow continued risk pooling but without so much risk on employers. Examples of risk sharing strategies include making plans contributory with cost increases shared, adjusting retirement ages with longevity changes, offering cost-of-living increases contingent on plan results, adjusting the formula if funded status falls below a certain level, etc. The participating group annuity contracts of the past included an approach to risk sharing. Risk sharing is not a new topic

"THE BIG ISSUE FOR PENSION INVESTMENTS IS TO COORDINATE THE INVESTMENT OF ASSETS WITH THE PATTERN OF LIABILITIES AND EXPECTED CASH FLOWS."

and it has been discussed in various forums. There is a lot of discussion of this topic in the Society of Actuaries *Retirement 20/20* project. *The Retirement 20/20 papers* offer different ideas about risk sharing. What was particularly interesting to me was the longevity pooling ideas in the *Retirement 20/20* papers. Those papers focused on the issue of individual mortality risk and separated it form systemic mortality risk. One of the ideas was to adjust benefits down if mortality increases exceeded a threshold. To me, indexing retirement ages is a very important idea and topic.

A second area for future focus is collective or pooled arrangements. Globally there is a range of different multi-entity arrangements and some work better than others. Two of the panelists described multi-entity arrangements that have focused on strong risk management and funding together with some risk sharing. Both entities cover a group of public employees, one in Canada and one in the United States. Private sector multi-employer plans in the United States do not offer a successful model. Collective arrangements can be based on a traditional DB model, a traditional DC model or something in between. They can include risk pooling but with more risk sharing. One idea for pooled arrangements starts with a DC approach, but provides a minimum investment return and annuity payout. Arrangements in Europe may offer a range of ideas and should be reviewed. At the same time the future may call for new ideas. One thing that was not discussed at the Pension Research Council Symposium was what would be feasible for smaller and mid-sized employers. As risk management gets more complex, it seems to me that the only approaches that will be feasible are approaches that use collective arrangements or shift all risk to employees, but this gives up an important tool—the ability to manage risks by pooling them. Even managing arrangements that shift all risk to employees may become too complex if fiduciary requirements are too great.

A third area of focus in thinking about solutions for the future is retirement ages and how we retire. Some observers question the feasibility of retirement. Many public systems have increased retirement ages, but much less than life spans have increased. For me, focus on this area is a critical part of the sustainability discussion.

As indicated above, sustainability was an idea discussed at various points during the session. This is an area of great importance going forward. There are different ideas about sustainability. I would throw into the mix an affordable benefit structure, appropriate risk sharing, and asset management that fits with the liability structure. DB plans with all of the risk on the employer are not viewed as sustainable by some people, particularly when they have fixed retirement ages. DC plans offer an approach to sustainability from the employer perspective but they place a huge amount of responsibility on the employee. Unless there are adequate funds, this is not a long-term satisfactory approach from the individual perspective. Another approach to sustainability is to provide for risk pooling but with more risk sharing. Amy Kessler's paper provided an approach to sustainability by using the following components:

- Sustainable risk budgeting
- Sustainable asset management, possibly including LDI, alternative fixed income investments, and absolute return strategies
- Longvity insurance.

Each of the authors who contributed to the *Retirement 20/20* papers had their own ideas about sustainability.

There were many more ideas. I have only shared a few of them. As I listened to this discussion, it made me ask how a plan sponsor is supposed to be able to evaluate all of these tools and choose which ones make sense for them. There were many interesting ideas, but it was not clear to me how to use them in practice. It seemed clear that many plan sponsors will need to rely on consultants for help, but that offers no help in evaluating which ideas are best. The big question for me is how actuaries and those we serve can use some of these new tools to manage risk effectively. At the same time, too much complexity is a recipe for disaster, and we need to figure out how to keep things manageable.

I am very pleased to have been a part of the 2013 Pension Research Council Symposium. I have attended a number of these annual events, and they often make me think about things I would not usually focus on. This year was no exception. I encourage the readers to look at the Pension Research Council website for many interesting ideas. ■