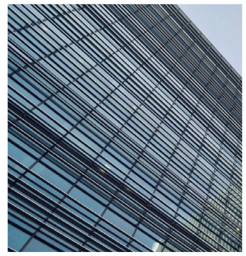
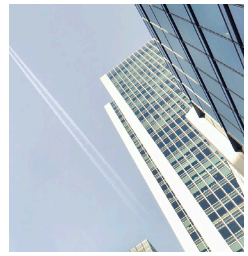
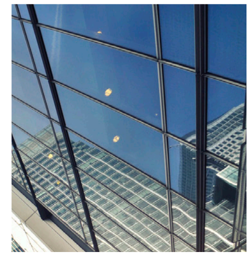
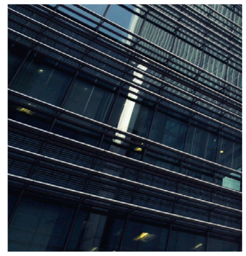
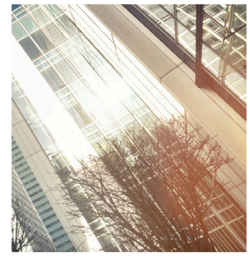





PENSION SECTION NEWS
ISSUE 84 | SEPTEMBER 2014



INVESTMENT ACUMEN FOR THE PENSION ACTUARY: DOES IT MATTER?

By Nathan Zahm

YES IT DOES!

If you're like many pension actuaries today, a frequent discussion topic is "derisking." Pension derisking encompasses many different actions, including:

- Changing the pension benefit formula
- Closing or freezing the plan
- Terminated vested lump sum windows
- Retiree lump sum windows
- Group annuity buy-ins or buy-outs
- Plan terminations

And for most of these types of derisking actions, actuaries are frequently having robust conversations and helping their clients navigate the pros and cons of the different strategies. However, another very common and important derisking discussion, the investment strategy, has often not included the actuary as often or in as much depth, yet this is an area where we as actuaries can add so much value.

Who best understands the return characteristics and behavior of a pension liability? Who best understands the contribution needs of a pension plan? Who best understands the accounting impact of pension liabilities?

CONTINUED ON PAGE 7

Published by the Pension Section Council of the Society of Actuaries

This newsletter is free to section members. Current issues are available on the SOA website (www.soa.org).

To join the section, SOA members and non-members can locate a membership form on the *Pension Section Council* Web page at *http://www.soa.org/pension/*

CHAIRPERSON'S CORNER

By Azita Bassiji

My term on the Pension Section Council (PSC) will conclude by the end of October 2014. I am grateful for the opportunity to serve as the chair of the PSC over the last year.

I mentioned in my January 2014 article in *Pension Section News* that the continued extreme volatility in pension obligations combined with longevity risk is forcing more and more defined benefit plan sponsors to rethink the design of their defined benefit pension plans. The Pension Section Council, through the Research and Continuing Education Committees has supported a number of research papers and continuing education activities in this area and desires to do more over the next several years.

RESEARCH

In the May issue of *Pension Section News*, I provided a list of research papers already completed and the list of research currently underway in this area (and related areas), including Canadian specific research.

I encourage you to tap into this research already available and those that will become available soon. I have found the research helpful in discussions on plan designs with plan sponsors.

Moreover, there has been a momentum building over the last several years around sustainable pension plan designs. The Forward Thinking Task Force of the American Academy of Actuaries undertook the initiative of Retirement for the AGES report. Several of the Canadian provinces changed legislative framework to allow design of Target Benefit pension plans. A number of industry thinkers are speaking about "Target Ambition" pension plans. The Pension Section Council has formed a Project Oversight Group to address the potential education needs in the area of risk shared pension plans. Some of the questions (in no particular order) faced by the POG are:

1. What are "risk shared" pension plans?
2. To what extent do these plans meet employer, labor management and finance objectives?
3. What are the impediments for establishing risk shared plans?
4. How does the distribution of costs and risks compare among DB, DC and risk shared designs?
5. What valuation issues are introduced by risk shared plans?

Azita Bassiji, FSA, FCIA, is partner at Aon Hewitt in Toronto, ON. She can be reached at *Azita.Bassiji@aonhewitt.com.*

6. How do they behave under various economic scenarios, including stress testing?

7. What types of legislative changes are required in order for risk shared pension plans to work?

8. How do the different retirement plan designs compare to the various goals plan sponsors have for offering retirement plans?

If you are interested in the participating in these efforts, please contact me, Aaron Weindling (incoming chair of the PSC) or Andy Peterson (SOA Pension Staff Fellow).

CONTINUING EDUCATION

As mentioned in the SOA Pension Staff Fellow, Andy Peterson's column and in the continued effort to provide relevant education, the Pension Section Council will sponsor a "mini-seminar" on "Pension Plan Risk Sharing Series" at the SOA annual meeting on Oct. 26-29, 2014. At the time of writing this column, the content of the sessions are being finalized and will include:

- Overview of risk sharing plans and design approaches from a global perspective;
- Valuation and funding of these plans – considering the allocation of risk among stakeholders;
- A case study and best practices; and
- Current regulatory limitations

I hope you will find the "mini-seminar" helpful as you assist plan sponsors in designing sustainable pension plans.

Lastly, in January 2014 I encouraged more actuaries to become members of the Pension Section. I am delighted that despite a small decline in Pension Section membership since last year, we had 11 new Pension Section members this year. Moreover, as you already know, we have five great candidates seeking seats on the PSC:

David R. Cantor;

Thierry Chamberland;

Grace Lattyak;

Michael J. Noble; and

Judy C. Ocaya

I would like to thank these candidates for their desire and willingness to volunteer time for the good of the profession.

Participating in the Pension Section Council has been a rewarding experience for me and it has helped me grow as a consultant. I encourage all of you to consider volunteering opportunities with the SOA and the Pension Section Council.

NOTES FROM THE EDITOR

By Martin McCaulay

Martin McCaulay, FSA, FCA, EA, MAAA, is an actuary with the U.S. Department of Energy in Washington, D.C. He can be reached at *martin.mccaulay@hq.doe.gov*.

Topics in this issue of the *Pension Section News* include Social Security systems in the world, reshaping workplace pensions for future generations, the link between retirement and long term care, multi-employer plans, communicating risk-shared plans, and the Investment Boot Camp for Pension Actuaries. Thanks to the authors for their contributions to this issue. The Investment Boot Camps are scheduled for two dates: September 23, 2014 at the University of Chicago and October 14, 2014 at St. Andrew's Club in Toronto, Ontario.

The SOA Annual Meeting & Exhibit will be held from Oct. 26-29, 2014 in Orlando, Fla. The Pension Section is will offer twenty-two sessions covering a range of retirement-related topics; including risk management, ethics, mortality tables, assumptions, late breaking developments, longevity, defined contribution plans, long-term care, workforce management. The Pension Section breakfast will include an overview of current SOA pension research.

Besides publishing the *Pension Section News*, the Pension Section Communication team also creates podcasts and publishes the *Pension Forum*. The Pension Section currently has twelve podcasts. Topics include the equity risk premium, retirement savings, research, smoothing, the PBGC, Social Security, and hybrid pensions. The section will publish a *Pension Forum* later this year on "The Concept of Retirement Plan Risk from the Company/Plan Sponsor Perspective." The topic for the 2015 Pension Forum will be on "Communicating Risk in Pension Plans." We are also trying to increase our presence on social media. The SOA Pension Section group on LinkedIn now has over 500 members. ■

Have an article you think will be of interest to others in the Pension Section?
You can email them to the newsletter editor at *martin.mccaulay@hq.doe.gov.*

THE ANSWER, THE ACTUARY.

The pension investment strategy impacts a pension plan's contribution needs, expense, and balance sheet liability, often an immense amount, thus a conversation about the investment strategy needs to include the actuary for clients to get a full understanding of how their investment decisions may impact their plan. In order for actuaries to contribute the greatest possible value to these conversations though, we need to be able to talk the talk and walk the walk of investments.

Do we need to understand the intricate details of managing pension assets? No. However, being able to engage clients in meaningful discussion regarding the trade-offs of different investments and investment strategies will go a long way to helping plan sponsors make the best derisking choices.

With this in mind, the Society of Actuaries is hosting two one-day investment boot camps this fall in Chicago on Tuesday, Sept. 23 (Chicago Investment Boot Camp) and in Toronto on Tuesday, Oct. 14 (Toronto Investment Boot Camp) to help pension actuaries build the investment acumen they need to engage in these discussions.

Attendees will learn about the details of fixed income markets and benchmarks and how fixed income and derivatives can be used to hedge pension liabilities. The boot camp will also include details on return seeking assets and their importance for pension investment strategies. The day will conclude with a robust discussion on common pension investment strategies today such as derisking glide paths and immunization.

Here is a more detailed look at each session of the boot camp:

- *Session 1 – The Fixed Income and Derivatives Markets*

  This first session of the Investment Boot Camp provides an overview of the fixed income and derivatives markets. We will discuss characteristics of the fixed income market, including common fixed income benchmark indices and analytical metrics, as well as the derivatives market and its structure.

- *Session 2 – Fixed Income Securities and Derivatives Applied to a Pension Plan Liability*

  Building on the knowledge from Session 1 of the Investment Boot Camp, this session will discuss how various fixed income and derivative securities can be used to hedge a pension liability and what to consider between the different options.

- *Session 3 – Beyond Fixed Income: Other Important Asset Classes for Pensions*

  Session 3 shifts the focus to the return-seeking portfolio and provides an overview of different asset classes such as public and private equities and alternative asset classes such as hedge funds and commodities with a focus on how they can be combined to produce a diversified portfolio.

- *Session 4 – Pension Investing Strategies Today*

  The fourth and final part of the Investment Boot Camp looks at the variety of pension investment strategies used today from derisking glide paths and immunization strategies to return oriented portfolios and termination considerations. Tying together the first three sessions, this final session will put together many of the investment decisions pension plans sponsors are making today.

Working with clients to find the best solutions to managing their pension risk is one of the key roles of the pension actuary today. To be as effective as possible in these discussions, a proficient level of investment acumen is critical. Understanding terms like hedge ratio, liability tracking error, and funded status volatility and knowing the trade-offs of hedging with fixed income vs. derivatives will make the actuary all that more valuable to a plan sponsor.

For those actuaries working with pension plan sponsors on derisking, I encourage you to consider attending the investment boot camp this fall. Helping pension plan sponsors understands the potential risks and rewards of any decision is something actuaries do best, and building your investment acumen will only help you and your clients to make the best decisions going forward.

Nathan Zahm, FSA, ACA, EA, is investment actuary at The Vanguard Group in Valley Forge, Penn. He can be reached at *Nathan_zahm@vanguard.com.*

A VIEW FROM THE SOA'S STAFF FELLOW FOR RETIREMENT

By Andrew Peterson

The Society of Actuaries is known as being a research and education association. In fact, it's in the first sentence of the mission statement: "The SOA, through research and education, advances actuarial knowledge and improves decision making to benefit society." Most actuaries working in the pension/retirement area are well-acquainted with the SOA's role in education as it relates to gaining actuarial credentials. Regardless of which exam system they came through when completing their SOA credential, members tell me they take great pride in the process they completed to attain that credential.

The SOA's commitment to education doesn't end with the credential. We have a talented and dedicated group of volunteers who serve on the Pension Section Council and operational team overseeing continuing education. At the risk of "beating our own drum" I'd like to highlight some of the current offerings of continuing education that are available for pension actuaries.

Many organizations and employers provide continuing education opportunities for pension actuaries. At the SOA, we primarily focus our education on topics that leverage our research, have connections to other areas of practice or are forward-thinking. As such, you are not likely to see the SOA hosting a webcast on how to complete an AFTAP calculation or meet the latest government filing requirement, but you are likely to see us sponsor events about new plan designs or emerging longevity risks.

The fall is typically an active time for continuing education opportunities, so I'd like to highlight a few specific items for consideration:

- **Investment Boot Camp for Pension Actuaries.** Recognizing the need for pension actuaries to better understand the investment side of the balance sheet, the Pension Section is hosting two day-long seminars focused on helping pension actuaries better understand investment basics. These two sessions, held on September 23 (Chicago) and October 14 (Toronto), will provide both lecture and hands-on exercises.
- **SOA Annual Meeting.** The SOA Annual Meeting includes well over 100 concurrent sessions, of which about 20 are developed by the Pension Section or others are of relevance to pension actuaries. Included in those sessions are two "mini-seminars" of sessions on a common topic. The first is a four-part series titled, "Pension Plan Risk Sharing Series." The topic of risk-sharing plan designs certainly seems to be gaining a lot of attention these days and has relevance to pension actuaries as we think about ways to blend positive elements of DB and DC plans into better, more sustainable retirement designs. The second "mini-seminar" is a three-part series based on a recent research paper call covering how long-term care (LTC) issues impact retirement security.
- **2014 Webcast Series.** The Pension Section also sponsors a robust offering of webcasts and as of the anticipated publication of this article, will have two remaining webcasts for 2014, an October 2nd webcast on "Fiduciary Issues for Retirement Plans" and a November 18th session on "Increasing Longevity and Implications for Workforce Management."

If you haven't participated in an SOA educational event before or haven't done so far awhile, I encourage you to consider one of these options and invite a friend to join as well. I think you'll find any of these events to be well worth the time invested. ■

Andrew Peterson, FSA, EA, MAAA is staff fellow – retirement systems at the Society of Actuaries headquarters in Schaumburg, Ill. He can be reached at *apeterson@soa.org*.

SOA 2014
SOCIETY OF ACTUARIES
Annual Meeting & Exhibit

Oct. 26-29, 2014
Rosen Shingle Creek
Orlando

Through the profession, collaboration, research, education and our members…

Invent
Change
Adapt
Learn
Build
Innovate
Perform

TOGETHER WE PROGRESS

SOAAnnualMeeting.org

25+ PRODUCTIVE NETWORKING OPPORTUNITIES

300+ DEDICATED PRESENTERS

100+ INSIGHTFUL SESSIONS

1,800+ INNOVATIVE MEMBERS

PERSPECTIVES FROM ANNA

AN INTERESTING WEEK IN WASHINGTON, D.C.: THE INTERNATIONAL CONGRESS OF ACTUARIES AND MORE

By Anna M. Rappaport

I spent the first week in April in Washington, D.C. attending important events: the International Congress of Actuaries[1], the Women's Institute for a Secure Retirement's (WISER) Dialogue among Generations, and the Investment Company Institute's (ICI) Retirement Summit: A Close Look at Retirement Preparedness in America. There are challenges in retirement systems worldwide, and the systems vary by country, but the issues facing the systems are similar in many different countries. Some of the issues raised in the discussions included sustainability, retirement ages, evolving risk-sharing models, and differing views about in-retirement financial adequacy. I also enjoyed interesting discussions about other important issues, saw old friends and made new contacts, and had some fun. This perspective focuses on the discussions that week and the events I attended.

THE BIG PENSION ISSUES

The Congress featured an interactive panel on current pension issues, representing several different countries. The panel chose to focus on sustainability as a major issue facing pension systems, and then used sustainability as an umbrella issue to connect many of the other big picture issues. Some of the sub-issues related to sustainability are funding rules and levels, sharing of risks, setting of retirement ages, and how well the benefits meet the needs of the people they are serving. It was a very interesting discussion. I would recommend sustainability as a key topic for ongoing discussion in future events.There are no magic bullets, but there are pathways to improve the situation. A well-attended panel at the Congress focused on target benefit plans and new pension designs. The three speakers were Paul McCrossan who spoke on New Brunswick, Canada and what has been done there; Andrew Vaughan who provided information about efforts to identify better paths forward in the United Kingdom; and Robert Brown who talked about target benefit plans in Canada. Related to this panel, a separate article in this issue features Andrew Vaughan, and "Reshaping Workplace Pensions for Future Generations." There were also discussions during the Congress about longevity and retirement ages. Longevity[2] was a huge topic of interest, and the opening session speaker Jay Olshansky reviewed some of his research. Some major takeaways from Olshansky's work include:

- While modest improvements are likely to continue, there is no reason to expect the large increases in life expectancy predicted by some researchers.
- Further increases in life expectancy must come largely from improvements in mortality at the older ages.
- There are large differences in life expectancy by socio-economic group in the United States.
- There are big advances taking place in medicine at this time.
- Work on delaying aging and extending healthy life should be an important focus of future research.

The Congress presentations and papers can be downloaded from the Congress website *https://cas.confex.com/cas/ica14/webprogram/start.html.*

The WISER and ICI meetings focused on the state of the retirement system. The WISER symposium featured a dialogue between a group of college students from Texas Tech and retirement experts including Phyllis Borzi and Dallas Salisbury.[3] The students had won an essay contest sponsored by iOme asking them for input on solving some of the challenges in the retirement picture today. The essay focused on increasing savings by younger people as well as educating them about savings. The iOme challenge serves to engage students in thinking about

Anna M. Rappaport, FSA, MAAA is an actuary, consultant, author, and speaker, and is a nationally and internationally recognized expert on the impact of change on retirement systems and workforce issues. She can be reached at *anna@annarappaport.com.*

retirement security.[4] This is a very important project because too many people have not focused on longer term financial security and the importance of saving.

The ICI Summit provided a forum for a star-studded group of academics to provide research results from different approaches to measuring retirement adequacy in the United States. Four different analyses were discussed. They reached quite different conclusions about what percentage of the American population is appropriately prepared for retirement. The projected range of individuals not well prepared as they reach retirement is from about 20 to 50 percent. The underlying population information is similar in these analyses. It seems that the biggest difference relates to the method of estimating needs after retirement. The approaches that focus on projecting pre-retirement spending with adjustments for inflation and aging show a much bigger problem than the approaches that study spending patterns during retirement and then use that information to estimate how well people entering retirement will do. Many areas of spending decline during retirement. Health care costs and gifting however increase. A number of presentations and recordings are available online from the ICI. The analyses based on spending paths still show high levels of unpreparedness on the part of single females. Couples and singles are in a very different situation. I encourage readers to look at the presentations and listen to the recordings of this meeting.

Underlying several of these discussions are different views about the successes and failures of the retirement system. In the United States, poverty rates are lower at retirement ages than among children. My view is that a number of the people who do poorly throughout adult life also do poorly at older ages, and that this is to be expected. However, I do not see this as a failure of the retirement system. Rather, I see it as a problem relating to the larger economy and the difficulty of some people to manage within the mainstream economy. If we adjust for this group, then we will have very different perspectives depending on which of the two viewpoints discussed above we accept. I view the current situation as a mixture of success and failure, and hope that each of us can think about what we feel good about and what we do not. We can then work to improve what is not going well. I worry particularly about unmarried women, and about people who have not been able to hold decent jobs throughout their adulthood. I wrote about this issue or success and failure in a prior *Pension Section News*. This discussion also raises some cautions: when you read or hear a discussion with a point of view, remember where it came from and how reliable the source is. Check on the data and the methodology used. Think critically about the issues and do not just accept the statements made.

THE 2014 INTERNATIONAL CONGRESS OF ACTUARIES EXPERIENCE

I am very pleased that there was an International Congress of Actuaries meeting in the U.S. in 2014. The organizing committee worked very hard, did a good job, and I want to thank them. The total Congress experience is a wonderful one. I became a fellow of the Society of Actuaries 51 years ago, and this is the first time in my career that there was a Congress in the United States This was my fourth Congress and I am happy that I was able to attend all of them. The first Congress I attended was in Sydney, Australia in 1984 and it changed my view of the actuarial profession. Within a few years after attending that Congress, I attended an International Association of Consulting Actuaries (IACA) meeting in Auckland, New Zealand.

The great value of the Congress is getting a sense of the global profession and broadening perspective. I feel that everyone should go to at least one international Congress, hopefully early in their career. A very interesting session I went to in 2014 was a session on micro-insurance sponsored by an International Actuarial Association (IAA) working group. This is a subject I know nothing about. It made me realize that there are important areas where the profession is working that I do not know about, and offered a little insight about what the IAA is doing. The sessions were interesting and offered a mix of topics I was familiar with and some I was not. There was an excellent line up of retirement- and pension-related topics. Often I learn the most when I attend a session in an area I know nothing about.

At the Congress, I had a chance to see a number of long-term friends and to meet some new people. It was wonderful for me to have a chance to meet with some of the leadership of the Pension, Benefits and Social Security (PBSS) section of the IAA.

THINKING ABOUT BIG PICTURE ISSUES CAN OFTEN HELP US TO MEET DAY TO DAY CHALLENGES MORE EFFECTIVELY, AND IT HELPS US DEFINE WHAT WE WANT TO DO NEXT, AND HOW TO GET THERE.

It was particularly gratifying to meet actuaries from countries where the profession is just developing. I went on one of the tours Tuesday afternoon, enabling me to visit a place I had never been and spend time with an actuary from Bosnia.

At the start of the 2014 Congress, there was a brief presentation showing how the number of countries having actuarial associations has grown over the last 20 years. Today the IAA represents more than 60,000 actuaries in 108 countries; 65 actuarial associations are full members of the IAA and 28 are associate members. There are a few nonmember associations, and quite a few countries with actuaries but not associations. It was a thrill for me to see this. Many of the people at the Congress were from countries that did not have an actuarial profession when I started more than 50 years ago, and from which I had not previously met anyone.

I want to share one story from the past. At my first IACA[5] meeting (my second international meeting), I learned some things that have been invaluable for much of my career. During that meeting, I came to realize that although there were differences in pension systems between different countries, there were several big picture issues that affected many different systems. To this day, there are common important issues found in multiple countries. Today, they include retirement ages, payout of money during retirement, risk sharing, sustainability, the shift to DC plans, and the difficulty of educating plan participants. During that meeting, I also learned that different countries use different methods to tax retirement benefits. Ever since that meeting, I have looked at multiple countries' solutions as a way to have a bigger perspective on solutions to issues. With globalization, an increasing number of people realize that retirement issues have parallels in many countries. That is a perspective that has not changed during my career. I encourage everyone to think about different solutions to the same issue, and to be open to learning from others. That meeting was more influential in shaping my approach to studying problems than any other meeting I ever attended.

I am proud to have been able to share some Society of Actuaries work and some of my work at the Congress. I did a presentation on the work on the Committee on Post-Retirement Needs and Risks. This work is focused on the individual, and in our fifteen years of work, we have found that misperceptions continue. I also did a presentation on disability and defined contribution plans. I have written on both of these topics for the *Pension Section News*.

THE WISER AND ICI MEETINGS

It was lucky for me that these meetings occurred during the same week as the Congress and I could fit them in. Both of them included diverse groups of professionals interested in retirement security. I was happy that they offered me the chance to hear interesting content, participate in important discussions and see some people I wanted to see.

ADVICE TO MY COLLEAGUES

I want to conclude with some advice to my colleagues. We are all faced with day to day challenges and must of course meet them. Most of us spend nearly all of our meeting time on the topics that we specialize in, and the ones that we work with clients or others on. That is what we need to do. At the same time, I believe we will be better professionals if we gain some perspective on the broader issues and spend a little bit of time learning about things that we do not do every day. I recommend both the Society of Actuaries Annual Meetings and the International Congresses for gaining such perspective.

My view is that we should balance our focus on day to day challenges with focus on big picture issues and on thinking about our lives and careers. Thinking about big picture issues can often help us to meet day to day challenges more effectively, and it helps us define what we want to do next, and how to get there.

Having a strong network of people is important for much of what we do. Even if it not important for what we do now, it may be important for our next project. My focus in the last few years has been heavily on working on issues related to the later part of life. I have done this through various projects, many of which are projects of the Society of Actuaries—either through the Committee on Post-Retirement Needs and Risks or the Pension Section. I have also advocated for important (and sometimes under-recognized) issues. Being connected to a diverse group of people is important both to doing this work and to gaining interest in the results.

To summarize my advice:

- Plan to attend a Congress at least once during your career.

- Attend other meetings that will give you a bigger picture including the Society of Actuaries Annual Meeting and other meetings.

- Expand your professional contacts beyond your area of practice and beyond the actuarial profession. Stay in touch with your network. Use the tools that work for you to do this.

- Make sure to have a big picture focus as you think about issues. Don't forget the details, but don't limit yourself to them either. ■

ENDNOTES

[1] The International Congress of Actuaries is sponsored by the International Actuarial Association. IAA membership is organizational, but the IAA offers sections that individuals must join. I recommend exploring and joining these sections. The opportunity to join is linked to the Society of Actuaries annual membership renewal process.

[2] For more recent research on longevity and interesting perspectives, look at the Society of Actuaries Living to 100 website. *http://livingto100.soa.org/*

[3] Phyllis Borzi was confirmed on July 10, 2009 as Assistant Secretary of Labor of the Employee Benefits Security Administration in the U.S. Department of Labor. Dallas Sallisbury is President and CEO of the Employee Benefits Research Institute.

[4] See *www.iOmeChallenge.org* for more information on the annual essay context.

[5] International Association of Consulting Actuaries, now a section of the IAA/

THE LINK BETWEEN RETIREMENT AND LONG-TERM CARE: JOIN US AT THE 2014 SOA ANNUAL MEETING

By Anna M. Rappaport and John Cutler

Anna M. Rappaport, FSA, MAAA is an actuary, consultant, author, and speaker, and is a nationally and internationally recognized expert on the impact of change on retirement systems and workforce issues. She can be reached at *anna@annarappaport.com.*

John Cutler currently works both on long-term care insurance and retirement issues at the US Office of Personnel Management (OPM) as well as in the new health care reform office of the National Healthcare Operations within OPM.

The Society of Actuaries Committee on Post-Retirement Needs and Risks, working closely with the SOA Long Term Care Section, issued a call for papers last year: "Managing the Impact of Long-Term Care Needs and Expense on Retirement Security: A Holistic and Multi-Generational View."

These papers and the conference sessions devoted to them will be presented on Wednesday, October 29, at the SOA annual meeting in a three series session. We explore several aspects of the relationship between retirement security and long-term care (LTC), and will offer ideas about making the LTC financing and management better. It is possible to attend these sessions and register for one day only. They will also be published in a monograph to be issued in the next few months.

This article previews some of the papers and issues to be covered.

WHY THIS IS IMPORTANT

LTC expenses can be devastating to the retirement income and lifetime financial security plans of households as well as their family caregivers. Households manage this risk with a variety of approaches but few have a formal plan or insurance, their primary plan is to rely on family and friends for care, and their last resort protection is usually Medicaid. This lack of protection has put middle class households at risk and has severely exacerbated household and societal challenges to a financially secure retirement with:

- The depletion of retirement assets due to LTC expenses for many of the families who purchase services in response to a major LTC event.
- The impact on the financial security of the surviving spouse.
- The added responsibility and financial burden placed on family members who care for their parents and loved ones.
- The cost of health and LTC needs—these costs often outpace general inflation and/or the amount that individuals and families have planned.
- The effect of increased longevity on the likelihood of the need for care during retirement.
- The limited participation by middle income earners in the private insurance market.
- The societal impact of an aging population on Medicare and Medicaid.

CURRENT SITUATION

Only about 10 percent of the population own private LTC insurance and it is in a state of disarray, with many companies having exited the market and many more imposing rate increases because pricing has been so difficult. Medicaid is the largest funder of formal programs, and these programs are under great financial pressure. Medicare funds a small amount of LTC via its coverage of post-acute care (but much less than many people believe) and is also under financial pressure.

GENERAL OPTIONS FOR PRIVATE FINANCING LONG TERM SERVICES AND SUPPORTS

Individuals have a number of options for financing LTC. Vickie Bajtelsmit and Anna Rappaport in their paper "The Impact of Long Term Care on Retirement Wealth Needs" offer a comparison of four methods of financing. The paper by Bajtelsmit and Rappaport paper also provides results of modeling that show the impact of shocks, and how they can devastate retirement security.

HOW INSURANCE FITS IN

Insurance is suggested as an important method of private financing, but at present only about 10 percent of the U.S. population have LTC insurance. Several of the papers provide ideas for improving insurance solutions. Paul Forte suggests a new approach to

Comparison of Private Financing Options for Long-Term Care

	Insurance	Savings	CCRC[a] with a life care contract	Housing Equity
Prevalence	Less than 10 percent of care is paid for by private long-term care insurance.	About 15 percent of long-term care is paid for out of pocket. On average, older households have insufficient funds to cover the cost.	Low; limited to higher wealth households.	Low prevelence of reverse mortgages to pay for LTC.
When to do it	While still healthy enough to qualify for lower rates.	Throughout life.	Payment at time of entry and ongoing payments thereafter.	When funds are needed.
Constraints	Limited access after health deteriorates. LTC insurace may not cover all costs.	Requires long period of saving to accumulate sufficient savings.	Limited access after health deteriorates.	Insufficient home equity to finance care; illiquidity may make selling difficult.
Match of solution to care needs	Depends on contract terms, e.g., qualification for benefits, type of care covered, waiting periods, maximums.	Does not provide or finance care directly; difficult to estimate needs; savings may be insufficient; flexibility to use funds as needed.	Depends on contract terms and care available at CCRC chosen.	Does not provide or finance care directly; no guarantee that home equity will be sufficient to meet needs.
Risks	Insurance premiums may increase over time; expenses may exceed policy maximums if care required for extended periods.	Investment risk; potential for shortfall; difficulty of managing assets; savings may be depleted prior to needing care.	Monthly costs are likely to increase; CCRC could change management or go bankrupt; don't know if all needs will be covered.	Housing equity may be inadequate to meet needs, housing market risk, interest rate environment impact on reverse mortgage payouts.
Which household type should use this methond of financing?	Middle and upper middle income because they can afford premiums.	Higher income and net worth households; need to start early and be willing to take investment risk.	Higher net worth only because of the cost of buy in and regular payments.	Any households that own their home; lower risk for singles.
If no LTC costs incurred, what cost has been incurred?	Insurance premiums from date of purchase to death.	Nothing. All savings can be accessed for other purposes.	CCRC buy-in price, higher monthly living cost to cover premium for long-term care.	Nothing. Housing equity is still available to use for other purposes
Issues for surviving spouse	Reduces risk of asset depletion; insurance can be cheaper if bought for both spouses.	Healthy spouse may incur personal and financial costs to delay accessing paid care; survivor may have insufficient assets to meet own needs.	Security of being in the CCRC and of receiving care if needed; monthly charges higher than alternative housing; high cost for relocation if it becomes necessary.	Healthy spouse may incur personal and financial costs to delay accessing paid care; survivor may have insufficient assets to meet own needs.
Tax issues	Some long-term care insurance has tax advantages.	Most retirement saving is tax-deferred; wealth will be taxed on withdrawal.	Part of the buy-in price and monthly cost are deductible as insurance.	Gain on the sale of the house usually tax free.

[a] *Continuing Care Retirement Community*

insurance using an exchange; his approach is designed to fit the needs of middle income Americans, a market often underserved. He argues for Federal regulation and a new design for this system. Richard Narva and his co-authors offer a regulatory and market overview of the existing insurance system. They contend that the product as currently designed does not meet the needs of consumers well. They provide their views of changes the existing product. Kallan Shang and colleagues offer a different view of product design focused heavily on sharing of risk, particularly investment risk. Some of these ideas will greatly expand the number of people with insurance and others will not. We hope that these ideas will generate more dialogue on the design of the marketplace and insurance products, leading to better solutions. Dr. Stephen Holland and his colleagues look at how the use of LTC insurance benefits relate to health care and how they reduce medical spending, particularly at the end of life.

Karl Polzer offers us ideas for the integration of 401(k) plans and paying for LTC. His policy recommendations provide for restructuring the 401(k) and IRA rules to allow 25 percent of account balances to be set aside for LTC, with favorable tax treatment, and distribution requirements that fit with LTC needs. The funds in the special account can be used to pay insurance premiums or to pay for LTC expenses directly. The Polzer proposal can be combined with any of the financing methods shown in the columns in the chart above. We hope that actuaries will consider this proposal and use it to start a conversation about how to integrate retirement and LTC financing.

John Cutler's paper looks even more broadly. What happens if these private and social insurance programs do not see major change? Where will individuals and society be in the near future? Among some surprising suggestions is that more is going on than we think; that we might actually be seeing LTC changes underway but too incremental (and fragmented) to be obvious.

THE PERSPECTIVE OF THE INDIVIDUAL AND THE HOUSING COMPONENT

Two papers look at case study examples with regard to LTC and housing choices. The paper by Steve Cooperstein looks at a specific situation, and how a combination of an annuity, housing values, and long term care insurance were melded to help finance the care. It provides an innovative success story. Sandra Timmermann also looks at the family and the role of the caregiver, as well as the impact on employers and their role in supporting family caregiving. The paper by Anna Rappaport looks at several case studies and the choice of housing options, and provides insights into some of the challenges individuals have experienced and the solutions they have used. It provides insights into evaluating a range of housing choices, and discusses special issues where there is a large up-front payment. It discusses some of the pros and cons of Continuing Care Retirement Communities. Barb Stucki also explores how to better use home equity.

SUMMARY

Some of the questions addressed by this effort include:

- How can individuals and families protect themselves from the expense of LTC needs?
- How can they protect against financial ruin from the exorbitant expenses associated with LTC needs?
- How can LTC advisors and their clients improve decision-making along with better ways to frame and communicate the challenges and potential solutions?
- Are there alternative product designs both private and public that can address these challenges? Are there alternative financing approaches?
- How can individuals and families finance care needs while addressing their basic retirement risks to provide income and asset protection?

A very nice variety of papers will be in the monograph. They cover a variety of topics and should be helpful in thinking both about what individuals need to do today and about the structure of the LTC system. The papers will be of interest to a range of audiences including individuals, advisors, financial service companies, and policymakers. We encourage you to come to the annual meeting sessions and participate in the discussion. For those who can't attend the meeting, the monograph will be available in the next few months. ■

SOCIAL SECURITY DEVELOPMENTS AROUND THE WORLD

By Tianhong Chen, David M. Rajnes, and John A. Turner

This article surveys social security developments around the world. We focus on China, Africa, countries with privatized individual accounts in South America and Central and Eastern Europe, and OECD countries. China, though the country with the largest population in the world, is often overlooked in international surveys.[i]

CHINA

Some degree of fragmentation in social security systems exists in many countries, with some groups of workers covered by different systems. For example, Canada has the Canada Pension Plan for most of the country and the Quebec Pension Plan for the province of Quebec. Tanzania has separate social security programs for Zanzibar and for mainland Tanzania, which is the former Tanganyika. Nevertheless, by expanding coverage of the main social security program, merging separate social security programs, or starting new programs that are nearly universal in coverage, some countries are reducing fragmentation of social security systems. China provides social security old-age benefits in a highly fragmented manner that is virtually unique among world social security systems, but it too is reducing fragmentation.

With respect to the social security benefits programs, China's population can be divided into seven groups. The two major groups in terms of number of participants are urban employed workers and workers in rural areas. Five smaller groups are urban unemployed workers, rural migrants to urban areas, farmers who have had their land appropriated by the government, government workers, and the military. Fragmentation also exists within the major programs, with regional and local variations in the national programs accounting for much of the fragmentation. China has more than 2,000 social security funds managed by different government entities.

China's social security program for urban workers provides a traditional defined benefit program plus mandatory individual accounts. The one for rural workers is voluntary, with voluntary individual account pensions. The mandatory individual accounts have been defunded to pay for benefits in the associated pay-as-you-go system, while the voluntary individual accounts are fully funded. The difference is not due to a greater ability to manage individual account plans in rural areas than urban areas, but primarily is due to differences in the amount of implicit pension debt for pay-as-you-go pensions in the two areas. The mandatory social security system for urban workers are supposed to be financed by a tax on employers of 20 percent of wages, but some employers understate wages or simply do not pay the tax because the rate is so high.

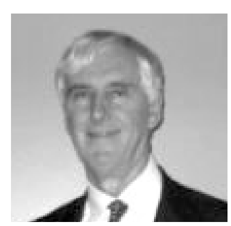
China has an innovative program that provides additional social security benefits at advanced ages, called the old-age allowance. This benefit starts at age 80 in some areas, but age 90 or even age 100 in other areas. Ireland is another country with a special social security benefit that starts at an advanced age.

AFRICA

The majority of workers around the world lack social security coverage. This is one of the key problems facing social security programs, particularly for middle- and lower-income countries. On average, social security programs in Africa only cover 10 percent of workers. For example, less than five percent of workers are covered in Uganda. Part of the reason is that many workers work in the informal sector and social security programs do not cover workers in that sector. Many private sector workers who are covered by law are not participating due to contribution evasion, which is the failure of employers to make mandatory social security contributions.

Tianhong Chen is a PhD candidate majoring in social security at Wuhan University, China.

David M. Rajnes is a research analyst with the Office of Economic Analysis and Comparative Studies, Office of Research, Evaluation, and Statistics, Office of Retirement and Disability Policy, Social Security Administration.



John A. Turner, PhD, is director of the Pension Policy Center.

Recognizing the problem of lack of coverage, many countries are attempting to extend coverage to more workers. Burundi has an innovative system where motorcycle taxi cab drivers are covered through contributions to their national association. To encourage coverage among agricultural workers, who are typically difficult to bring into the social security system, Tanzania has a public relations campaign to encourage more people to participate in the social security system. Tunisia charges agricultural workers a lower contribution rate than urban workers. Egypt allows self-employed workers to declare their level of income, with the minimum level varying by occupation.

Provident funds were established in many countries that were formerly British colonies or British protectorates, in part because of their simplicity. They are defined contribution plans that typically provide lump sum benefits and that have a single investment pool for all participants. Provident funds were established in most of the former British colonies or protectorates in Africa—Gambia, Ghana, Kenya, Nigeria, Seychelles, Swaziland, Tanzania, Uganda and Zambia. Outside of Africa, Singapore and Malaysia also have provident funds. However, many countries have ended those plans and have switched to social insurance types of plans. Those countries include Ghana, Nigeria, and Tanzania. Kenya and Uganda are considering converting their provident funds to defined contribution pensions, rather than to a defined benefit social insurance pension. Nigeria subsequently switched to a mandatory individual account system. In 2010, Egypt passed a law replacing its pay-as-you-go system with a system of mandatory individual accounts.

COUNTRIES WITH PRIVATIZED INDIVIDUAL ACCOUNTS

Most countries around the world provide social security benefits through traditional defined benefit pay-as-you-go systems based on principles of social insurance. However, a number of countries in Latin America, Central and Eastern Europe, and elsewhere, have added mandatory individual accounts as a component of their social security programs.

In 1981, Chile was the first country to privatize its social security program. Chile completely ended its pay-as-you-go system for private sector workers, replacing it with an individual account system, while most other countries that followed it cut back on the pay-as-you-go system and combined it with a mandatory individual account system. Since 1990, 10 other countries in Latin America have followed Chile. The first countries (with the year implemented) were Peru (1993), Colombia (1993), Argentina (1994), Uruguay (1996), and Mexico (1997). These were followed by two of the poorest countries in the region, Bolivia (1997) and El Salvador (1998). In 2008, Panama added mandatory individual accounts for new entrants into the social security system.

Beginning in the late 1990s, after the fall of the Soviet Union, a number of countries that were part of the Soviet Union or that were in Central and Eastern Europe added mandatory individual accounts as part of their social security systems. Kazakhstan (1997), Hungary (1998) and Poland (1999) were early leaders, followed by Bulgaria (2000), Latvia (2001), Croatia (2002) and Estonia (2002). Other countries include Bulgaria (2002), the Former Yugoslav Republic of Macedonia (2003), Slovakia (2005) and Romania (2008). In addition, Lithuania, the Czech Republic, Slovenia and Russia have enacted reforms.

Mandatory defined contribution plans have also been introduced in countries in other regions, either in addition to or in replacement of existing traditional social security programs. In 2011, Thailand introduced the National Pension Fund as a mandatory defined contribution plan to supplement its traditional social security plan. In 2010, Brunei added mandatory individual accounts to its existing mandatory social security system. Between 1988 and 2008, 29 countries followed Chile and established mandatory individual accounts.

Contribution rates have increased in some countries with mandatory individual accounts and mandatory pensions, such as Mexico, Singapore, Hong Kong, and Australia. Australia is raising its contribution rate for its mandatory pension system from nine percent to 12 percent.

Some countries that enacted reforms that privatized social security by adding individual accounts have later cut back on those reforms, reducing or eliminating the contributions to privatized individual accounts. Argentina ended its system of privatized individual accounts in 2008, while Bolivia nationalized its system of individual accounts in 2010. Retrenchment has been more common in Central and Eastern Europe than in South America, in part because of the financial crisis there and the subsequent economic downturn. In Central and Eastern Europe, Poland, Latvia, Lithuania, Estonia, Romania and Slovakia all retrenched their privatized systems in some way since 2010. Starting in 2010 Hungary ceased funding its mandatory individual accounts and returned most of the accumulated funds to the participants. In 2012, the Slovak Republic reduced the contributions to the mandatory individual accounts and transferred those contributions to the pay-as-you-go system. It also temporarily permitted workers to withdraw from the system. In 2013, Kazakhstan announced that it was nationalizing its system of mandatory pension funds.

Retrenchment has occurred in part because of the double payment problem, where payments are being made into the new individual accounts, while payments are still required into the traditional pay-as-you-go system to pay the benefits promised from that system. Some governments have found that it was too expensive to pay for the existing pay-as-you-go system and for the new individual accounts, particularly in circumstances of an economic downturn.

OECD

Though they have generally not been described this way, historically social security programs were designed as longevity insurance programs, meaning programs that provided benefits at advanced ages where roughly half of those entering the workforce had died. Over time, they have gradually shifted to being retirement benefit programs due to the increase in life expectancy and decreases in benefit eligibility ages. For example, while the United States Social Security is now a benefit that most people who enter the workforce survive to receive, it was originally structured like a longevity insurance benefit. In 1940, when benefits were first provided, the benefit eligibility age was

65. Taking into account that people entered the workforce at earlier ages than currently, from U.S. life tables for 1910 for the population age 18 that year, at age 65, 54 percent of the population would still be alive.

Because of rising old-age dependency ratios, a number of OECD countries have cut back on the generosity of their social security benefits, resulting in falling income replacement rates in old age. These countries include France, Japan, Sweden, Greece, South Korea and the United States. A number of countries have reduced benefits in traditional social insurance old-age benefits programs by increasing the years used in the earnings averaging period for calculating benefits. Spain has done so, resulting in more years of relatively low earnings being included, lowering average earnings in the benefit calculation. Finland, Austria, France, Italy, Greece and the United Kingdom have also increased the number of years used in benefit calculation. In Italy, the increase was from the worker's last five years of earnings to lifetime earnings.

Contribution rates have been increased in many OECD countries, including Denmark, Finland, France, and Sweden. Social security contributions also can be increased by raising the contribution base. Countries that have completely eliminated the ceiling on taxable earnings for social security financing include Finland and Norway. In 2001, Ireland eliminated the ceiling on taxable earnings for social security for employer contributions. The United Kingdom also requires employers to pay social security taxes on employee earnings without a ceiling on those earnings. In 2014, Japan increased its value added tax (VAT) from five to 10 percent, with the increased revenue being used to finance its social security program. Although all OECD countries use contributions from employers and employees to finance social security old-age benefits, nearly all those countries also use general revenue funding.

At least twelve countries have adopted automatic adjustment mechanisms as a way to maintain the solvency of their pay-as-you-go social security programs. Finland, Portugal, Norway and Sweden adjust the generosity of benefits received at retirement automatically for changes in life expectancy. Portugal passed legislation in 2007. A sustainability coefficient was introduced in the benefit formula for calculating pensions. This coefficient equals the ratio between life expectancy in 2006 and life expectancy in the year preceding retirement. The level of statutory pension is multiplied by the coefficient, reducing the benefit level as life expectancy increases.

CONCLUSIONS

This article provides a quick trip around the world, surveying selected developments in social security. In most countries, social security is a work in progress, with developments continuing as countries face the challenges of aging populations. ■

REFERENCES

Chen, Tianhong and Turner, John A. 2014. "Fragmentation in Social Security Old-Age Benefit Provision in China." *Journal of Aging and Social Policy*, forthcoming.

Gillion, Colin; Turner, John A., Bailey, Clive, and Latulippe, Denis (eds.) 2000. *Social Security Pensions: Development and Reform*. Geneva, Switzerland: International Labour Office.

Turner, John A. and Rajnes, David M. 2014. "Social Security and Pension Trends Around the World." In *Social Security and Pension Reform: International Perspectives*, edited by Marek Szczepanski and John A. Turner, Upjohn Institute, pp. 13-38.

ENDNOTES

[i] The material for this article is taken from the sources in the list of references, where a full list of references can be found.

INTERESTING IDEAS ABOUT THE FUTURE OF PENSIONS: AN INTERVIEW WITH ANDREW VAUGHAN

By Anna M. Rappaport and Andrew Vaughan

At the 2014 International Congress of Actuaries, I had an opportunity to talk with Andrew Vaughan, the chair of the Defined Ambition Working Group in the United Kingdom, chairman of the Association of Consulting Actuaries in the United Kingdom and also a former colleague of mine. The report from the working group "Reshaping workplace pensions for future generations" excited me for several reasons:

- It is focused on new directions to improve retirement security in light of the flight away from DB pensions.
- It is focused on what will work for two groups of customers: the individuals who need retirement security and the plan sponsors who may choose to sponsor plans or not.
- It provides ideas for improving security starting from both traditional DB and DC arrangements.
- The development of the report represents a collaboration of the private sector and government. The report was issued by the Department for Work and Pensions and was presented to Parliament.
- The concepts in the paper are seen as offering a foundation for a new regulatory system for pensions in the United Kingdom.
- Many people in the United States are thinking about the future of the pension system, and I believe that report will have valuable ideas for them. The challenges in the United Stated and in the United Kingdom seem to have definite parallels.

I am delighted that Andrew Vaughan is providing us a perspective on this report and the work that led up to it.

Anna Rappaport

INTRODUCTION

This paper reviews the effort to reinvigorate workplace pensions in the United Kingdom. It explores Defined Ambition (DA) pensions that complement traditional defined benefit (DB) and defined contribution (DC) structures. An underlying concern is that if traditional DC plans become the dominant workplace pension, then this may mean many people will have inadequate pensions. The paper sets forth how the issue was addressed in the United Kingdom and the emerging outcome of legislation announced in early June 2014.

Principles for development of DA pensions in the United Kingdom

Reinvigoration objective

Enable industry innovation and development of new products including those which will give people more certainty about their pensions and encourage more risk sharing.

A DA scheme should be:

- **Consumer focused**—address consumer needs (members and employers).
- **Sustainable**—affordable to the stakeholders (employers/pension providers/members) over the long term.
- **Inter-generationally fair**—not biased to pensioners, but also take on board needs of future pensioners.
- **Risk sharing**—incorporate genuine risk sharing between stakeholders.
- **Proportionately regulated**—the regulatory structure needs to be permissive to enable innovation in risk sharing, while protecting member interests.
- **Transparent**—there should be high governance standards with clarity for members about any promise made and any associated risks.

Source: Reshaping workplace pensions for future generations

Do you have any comments about the joint private sector/government process?

In the United Kingdom over the last two decades, reform of pensions has meant the addition of a huge amount of detailed regulation—usually driven by 'bad cases' such as the Maxwell plundering of pension schemes. This regulatory overload coupled with more rigorous accounting rules and the loss of some major tax privileges in the late 1990s placed huge additional cost pressures and liabilities on United Kingdom defined benefit scheme sponsors well ahead of the financial crash of 2008. However, the wave of defined benefit closures accelerated post-2008 and it became clear to the incoming Coalition Government in 2010 that if actions were not taken soon then the drift towards defined contribution arrangements with generally low levels of both employer and employee contributions (and outcomes) would continue.

We were fortunate that the incoming Pensions Minister in 2010, Steve Webb, has had a long interest in pensions and he has remained in post throughout the last four years. The ACA had long been arguing for legislation to encourage risk sharing in the United Kingdom, and shortly following his appointment as Minister he invited me to head a 'Defined Ambition' Industry Working Group to assist the Department for Work & Pensions (DWP) in identifying the options that might be available in what he described as the 'space between DB and DC'.

Following my appointment we established working sub-groups looking at ways to make DB schemes more flexible, ways to innovate in the DC market, including a separate subgroup examining Collective Defined Contribution (CDC) schemes. These groups were manned by volunteers from the pensions industry, including pension trade bodies, as well as representatives from the trade unions and consumer groups, with DWP officials also present.

The groups met regularly over an 18 month period and ultimately made recommendations to the DWP which were summarized in two separate consultation papers in late 2012 and 2013.

Was there anything particularly interesting that you heard from the stakeholders who gave input to the process?

Throughout the process it was clear that employers were concerned that any new type of risk sharing scheme must not, by future Government action, lead to extra costs and guarantees being placed on them again, as had been the case with defined benefit schemes. It was clear a number of large employers were interested in considering new risk-sharing models—quite a number met with the Minister during the process to indicate their interest.

The pensions industry itself had mixed views throughout. Whilst many consultants were keen to explore new ideas, others were skeptical that employers would move back from traditional defined contribution schemes, particularly as larger employers from 2012 were all having to auto-enroll their employees into workplace pension arrangements under an earlier Government policy, which almost universally were defined contribution in nature.

Employee and consumer groups not unsurprisingly were keen to see existing defined benefit schemes retained where possible and were supportive of risk sharing in so far as it offered greater certainty in pension outcomes than traditional defined contribution. Concerns about the charges associated with many legacy defined contribution schemes also encouraged support for 'scale' trustee-based solutions.

There was a broad consensus that accrued pension rights should not be affected by the reforms, although there was some pressure from consultants and employers that the reforms should allow sponsors flexibility to re-structure their accrued benefits as they complemented their future pension arrangements.

Which of the ideas could have the biggest impact?

Early on in the considerations it became clear the Pensions Minister was particularly interested in solutions that offered greater certainty of, initially, the emerging pension 'pot' at retirement and, then, following the work of the group, greater certainty of the income in retirement. Pension charges in the defined contribution area were also a concern, which pushed considerations towards 'scale' solutions.

Following the consultation exercises, the Minister became increasingly convinced that there was the opportunity to construct a new risk sharing regime between DB and DC and to lead the way with the legislative reforms, he became convinced the 'scale' solution of CDC schemes should be available—probably from 2016.

Do you have any opinion about which ideas are most likely to be implemented?

In June 2014 the Government announced in the Queen's Speech (the U.K. announcement on legislation for the year ahead) that it would be introducing legislation to enable CDC schemes to be established. Their introduction would be as part of a new 'risk sharing' pensions regime—the details of which (at the time of writing) are yet to be tabled.

However, hopes that at the same time legislation would ease the legislation surrounding defined benefit schemes—for instance, removing the requirement in the United Kingdom to index benefits up to 2.5 percent per annum to reflect movements in prices, were not pursued. This was justified on the basis that the Government did not feel the consultations had shown enough employers would take up these reforms, although survey evidence and face to face meetings have shown support for flexible DB. The proximity of the 2015 General Election and the importance of the 'grey vote'—in that the reforms might bring headlines like 'Government proposes to cut pensions'—may have had an important bearing on matters.

In the United States, many actuaries and economists favor increasing retirement ages, while consumer advocates are often very opposed to this idea. Do you have any comments about retirement ages and ideas for adjusting them?

In the United Kingdom, the Government has already announced movements in the State pension age from what is currently 65 for both men and women to 67 by 2028, and a further increase to 68 is planned for the mid-2030s. Legislation passed this year will see the Government periodically review State Pension Age in the light of longevity improvements, but taking account of the social impact of extending ages and giving reasonable advance notice.

The DA Industry Working Group expressed the hope that the Government would act to enable private sector sponsors to easily adjust pension ages in the light of longevity improvements, perhaps introducing a statutory override to by-pass restrictive scheme rules written years ago, but it would appear the Government feels that no changes in legislation are needed to enable employers to adjust scheme ages. However, whereas in the United Kingdom the State is permitted to adjust pension ages encompassing accrued rights, because of U.K. trust and contract law this is not possible in the private sector without individual agreement from members. It is clearly inconsistent that as longevity extends, private sector employers are restricted in their ability to increase pension ages in order to mitigate the increasing cost of pensions, whereas the State can simply adjust the age from time to time.

How will the proposals make it easier to offer defined benefit plans using a defined ambition approach?

Very few defined benefit schemes in the United Kingdom are now open to new members—fewer than 10 percent of the 6,500 private sector schemes that once had over 8 million active members. Latest figures suggest around a half of these schemes are continuing accrual for existing members—covering around 1 million private sector employees.

The reluctance to legislate in favor of more flexible defined benefit schemes is likely to mean that there will be more closures, particularly as all schemes have to be reviewed ahead of 2016, when schemes ability to 'contract out' of the Government's earnings-related element of the State pension scheme ends (from then, the State scheme will pay a higher flat-rate benefit with no earnings-related supplement for future accrual). It may be that some larger employers and groups of smaller employers will take the opportunity to move to a risk sharing model in the shape of CDC—we simply don't know whether the take up will be modest at first or not.

In fact, the end of contracting out in 2016 may mean that for those employers prepared to persist with defined benefit, there are some easements (e.g., they will no longer be required to automatically offer spouses' benefits and there may be some simplification of administration), but the concern must be that the swing towards traditional defined contribution schemes—with generally low contribution levels—will persist.

How will the proposals improve certainty in defined contribution plans?

The introduction of CDC may well prompt traditional DC providers to re-examine both their charges and overall package in terms of the certainty of outcome, but it is likely other reforms underway in the United Kingdom will also have an impact.

To date, for the majority of defined contribution scheme members, the only realistic option at retirement—aside from an ability to draw 25 percent of their pot as tax-free cash—has been to buy an annuity at some point between retirement and age 75 (with a minimum retirement age of 55). The Government has announced changes this year—to be fully effective from April 2015—so DC members will be able to draw on their pension pot pretty much how they want from age 55 subject to their marginal tax rate (with the minimum retirement age likely to rise so it is 10 years below the State Pension Age). This major change is presenting the provider market with huge challenges as to how they should respond to retain business. If this was not enough, we are also seeing the regulation of defined contribution schemes becoming more rigorous, which is likely to add to costs—pulling against the policy intent to reduce charges and to increase certainty in returns. The argument runs that the impact of all these pressures will be a rationalization in the number of schemes which—again—may foster the growth of another range of CDC solutions, such as funds that allow members to pool their retirement savings together to reduce costs and gain access to a wider range of investment strategies and retirement income drawdown options.

What actions will be most important in making it possible to implement change?

A big concern with all U.K. pensions legislation is that reforms are simple and regulation proportionate. Unfortunately, the U.K. Parliament has a habit of adding complexity during the passage of Bills and via both legislation and regulation, adding still further complexity based on addressing a few 'bad cases' when the majority of sponsors and schemes are working well and effectively in the interests of members.

Clearly as the U.K. Coalition government comes to the end of its current term of office, it is important that the Parliamentary process does not get in the way of finalizing the proposed legislation.

What role is the actuarial profession playing in moving the retirement system in the United Kingdom?

While there have been genuine concerns that the decline in defined benefit arrangements must impact both on the influence of actuaries in the United Kingdom and employment opportunities in the consulting sector, evidence to date does not support this. Yes, to some degree activity remains at a high level in the short term because of the scale of ongoing, often closed provision and work associated with buy-out and buy-ins, but the skills of consulting actuaries remain in high demand from sponsors, trustees and—of course—the provider market.

CDC in all its forms will certainly require actuarial involvement and actuaries will be prominent in assisting providers of pensions in this highly competitive environment to design new pooling or risk-sharing features. An increasing number of our members are also involved in providing investment advice to both sponsors and trustees.

What advice do you have for us?

Never give up! Actuaries must make their case on what they believe is needed and keep repeating the message. Eventually somebody will listen. Importantly, as well as pursuing arguments in the public arena, actuaries and their representative bodies need to engage with politicians in all parties that show an interest in pensions and other matters of interest and also build strong working relationships with public officials advising Government. By so doing, there is a better chance that public policy can be influenced so mistakes are minimized and actions are taken that are supportive of good pension provision. That said, be realistic. Unfortunately, the political timetable is often very short and not conducive to making decisions that will take a long time to mature. The lesson here is to push for reforms as early in a Government's term as possible—which may be more difficult in the United States than the United Kingdom because of your election timetables. ■

Anna M. Rappaport, FSA, MAAA is an actuary, consultant, author, and speaker, and is a nationally and internationally recognized expert on the impact of change on retirement systems and workforce issues. She can be reached at *anna@annarappaport.com.*

Andrew Vaughan, FIA, is partner at Barnett Waddingham. He was chairman of the U.K. Association of Consulting Actuaries and International Association of Consulting Actuaries 2012-2014.

ACTUARIAL CONSULTING CAREER ADVICE BASED ON EXPERIENCE

By Betsy Dill

For the last two and half years, I have been the head of Human Resources (HR) at the J. Paul Getty Trust, also known as the Getty. The Getty, funded by an endowment of nearly $6 billion, employs about 1,400 people on two campuses in Southern California. In addition to its museum, the Getty also has a research institute housing millions of rare manuscripts and writings on art, a conservation institute that works across the world to protect and restore art and artifacts, and a foundation that makes grants to other cultural institutions. The Getty employs people with various levels of education and skills from scientists, researchers, curators, and conservators to security officers and grounds keepers. Staff at the Getty feel a high sense of ownership of the organization and therefore are very keen to participate in any initiative impacting the organization.

Prior to my role at the Getty, I had worked for over 25 years of work as a consulting actuary specializing in retirement plans. I've been asked how my actuarial background prepared me for an HR job several times since I joined the Getty. My training as an actuary, my experience with a variety of clients, and the management of consulting teams have enabled me to be successful in this role. Operationally, HR professionals are called upon to manage employee data and ensure compliance with a myriad of local, state, and federal laws. This requires the need for strong project management, process excellence, and a passion for detail. Strategically, HR professionals need to ensure that the culture supports the goals of the business or institution. This requires the ability to think strategically about the messages that are sent to staff and managers by interaction, communication, and support from HR. It also means that compensation, benefits, training, recruiting, and development must strategically support the desired culture. Finally, HR professionals are increasingly called upon to not just manage compensation and benefits budgets, but to develop analysis that identifies how to source and hire the best people, create engagement, and increase performance and productivity. The ability to develop appropriate analytics is key to ensuring that these programs support the organization as desired.

The biggest challenge of my job has been moving back and forth between the strategic mandates of HR and the operational realities of the department, while managing the various stakeholders. Defining the strategic direction for HR, particularly given HR's role within an organization and influence on its culture requires strong stakeholder management. Each project that I have undertaken at the Getty, including the first – developing the Getty's Employee Value Proposition to inform HR strategy—needs the broad support of stakeholders across the organization. Managing stakeholders is not only "informing about" but "gaining input to" a project. In some cases, the input is really meaningful to the project, in other cases it's not. I was initially surprised that stakeholder management ended up being the area in which I spent the most time but have come to appreciate how working with stakeholders can ensure the success of a project.

HR policies are heavily regulated—especially in California. In many cases, the rules that are meant to protect employees often come across as punitive—for example time recording for non-exempt employees. These rules, foundational to HR operations, also create cultural challenges (why are you monitoring all my time? Why do I have to take a work break or lunch, now?). My work as a pension actuary had already plunged me into the ERISA abyss. And, ERISA didn't seem so bad as I started to make my way through employment law, not to mention the Affordable Care Act. Employment law, covered under a number of federal and state laws, drives HR policies for leave of absence, performance management, time

Betsy Dill, FSA, EA, MAAA, is US innovation leader, retirement, at Mercer in Los Angeles, Calif. She can be reached at *betsy.dill@mercer.com.*

THE RIGORS OF THE EXAM PROCESS, THE APPRENTICESHIP NATURE OF THE WORK WHILE A STUDENT, AND THE DEMANDS OF BALANCING THE SELF-STUDY AND WORK PREPARES ACTUARIAL STUDENTS TO BE STRONG CONTRIBUTORS IN THE WORKFORCE.

recording, work flexibility, as well as how employers communicate with employees. Required disclosures, as an example, are often viewed as items that "HR" owns and develops. As we have had to incorporate new rules into our policies or simply continue required policies, I have worked to ensure that managers and staff were clear on where Getty-discretion ended and regulatory rules started. We want staff to understand that we are as averse to bureaucracy as they are, and that some of the bureaucracy is not arbitrarily driven by HR.

Benefit and compensation programs provide the most direct messages about organizational culture. At the Getty, we implemented a number of program changes that were designed to empower employees. The strategy and design for these programs required approval from senior leadership, as well as buy-in and decision makers at the Getty. These stakeholders were often pressed for time, so that communication about changes needed to be delivered concisely, often in meetings with full agendas. Communication with staff needed to include more details, delivered in a variety of ways, because people wanted to understand how program changes impacted them, and not all of them processed the information in the same manner. Beyond communication, many compensation and benefit plan changes required that we address a very granular level of detail during implementation. As we modified our programs we developed project plans with a number of work-streams to activate our plan changes changes (for example, communication, HRMS, employee self service, vendor(s) implementation(s), plan documentation, and actual launch / use). Inevitably, even with diligent project planning and issue identification, there were items that came up in the course of implementing changes that were not anticipated on the front end of the project. I became comfortable with the notion that mid-stream issues would come up, and were usually be resolved in a manner that is consistent with the goals of the projects.

Actuarial consulting was great preparation for my job as the head of Human Resources. In consulting, I often had to communicate complex concepts to people at many levels in an organization with varying financial / legal backgrounds. This prepared me for managing the numerous stakeholders at the Getty through compensation and benefit program redesign and implementation. As an actuary, I was responsible for certifying actuarial results. This meant that the results had to have been developed accurately and aligned with the liabilities that the programs were actually creating for sponsoring organizations. I had to be skilled in moving from the "big picture" to the minutiae—program designs to test life analysis! Another advantage of my actuarial background was the technical training - the ability to understand how regulatory and financial requirements interact—whether for a retirement calculations, developing financial disclosures, analyzing rates for health plans, poring through the ACA rules, or forecasting budgets. Finally, as an actuary I had to work as part of larger interdisciplinary teams —sometimes as a leader and other times as a doer. This prepared me for managing the HR team, as well as being part of the larger operational team at the Getty.

The actuarial profession provides a strong basis for all types of employment. The rigors of the exam process, the apprenticeship nature of the work while a student, and the demands of balancing the self-study and work

determining how new consulting offerings are brought to market. I learned so much from working directly with the Getty's staff—something that will inform my thinking on how programs and policies can be made more relevant to the employees that they are meant to serve. I also look forward to leveraging my experience connecting ideas and strategy into operationally viable policies. ■

prepares actuarial students to be strong contributors in the workforce. So many organizations require managers that understand financial analysis often tie to a complicated regulatory environment. My advice for actuaries that are interested in moving from traditional actuarial roles to jobs that are not is simple: Focus on the business skills that are transferable, and never underestimate or undersell the expertise that you've developed as an actuary.

I am returning to Mercer later this summer, as their US Innovation Leader for the Retirement business. In that role, my experience in Human Resources will be valuable in

PRIVATE SECTOR MULTIEMPLOYER PENSION PLANS – A PRIMER

By Alicia H. Munnell and Jean-Pierre Aubry

Editor's Note: Originally published by the Center for Retirement Research at Boston College, August 2014, Number 14-13. Reprinted here with permission.

Alicia H. Munnell is director of the Center for Retirement Research at Boston College (CRR) and the Peter F. Drucker Professor of Management Sciences at Boston College's Carroll School of Management.

Jean-Pierre Aubry is assistant director of state and local research at the CRR.

INTRODUCTION

Private sector multiemployer pension plans – plans negotiated by a union with a group of employers typically in the same industry – once thought to be secure have now become the focus of concern and congressional interest. These plans, having expanded benefits during the stock market boom in the 1980s and 1990s, became significantly underfunded in the wake of the two financial crises after the turn of the century. In addition, many plans are in industries, such as construction, hurt by the prolonged recession, and most face a shrinking pool of active workers. The great majority of troubled multiemployer plans have responded to the financial pressures by requiring the bargaining parties to negotiate higher contribution rates and some by cutting the rate of future benefit accruals, allowing them to navigate to relatively secure footing. But a significant number of plans, covering at least one million of the 10.4 million participants, could run out of money in the next 20 years.[1] What to do with the severely troubled plans is a subject of great controversy.

This *brief*, the first of four, describes the evolution of multiemployer plans since the 1980s and the nature of the current problems. The second *brief* will look more closely at troubled plans and compare projections from a simple model with published estimates of plans likely to run out of money. The third *brief* will explore the likelihood that participants in troubled plans will find relief from the Pension Benefit Guaranty Corporation (PBGC), which guarantees pension benefits for plans that have exhausted their assets. Given that the PBGC does not have the resources to solve the problem, the fourth *brief* will analyze a controversial proposal to allow plans facing impending insolvency to cut benefits for current retirees to spread the pain among all participants. The first step, however, is to gain some understanding of multiemployer plans – the goal of this *brief*.

The discussion proceeds as follows. The first section describes the nature of multiemployer plans and their role in the retirement income system. The second section presents the evolution of the financial health of these plans and how they have responded to two stock market collapses and the recession. The third section describes the current funded status of these plans under alternative measures used by the U.S. Department of Labor and the PBGC. The fourth section identifies structural challenges facing these plans.[2] The final section concludes that, despite enormous progress made by multiemployer plans to restore their financing, a substantial minority remain in dire condition.

Table 1.
Distribution of Multiemployer Plans and Participants, 2012

Plan size (number of participants)	Percentage of total participants	Number of: Plans	Number of: Employers per plan
Large (10,000 or more)	77%	170	738
Medium (1,000-9999)	20	665	114
Small (fewer than 1,000)	3	578	29
Total	100	1,413	154

Source: Unpublished data from the Pension Benefit Guaranty Corporation (James 2014).

WHAT ARE MULTIEMPLOYER PLANS?

Multiemployer defined benefit plans are created by collective bargaining agreements between a labor union and two or more employers. These plans typically exist in industries with many small employers who would not ordinarily establish a defined benefit plan on their own, and where it is common to move from one employer to another. Most participants are covered by relatively few large plans (10,000+ participants), but the system also has many small plans (less than 1,000 participants) (see Table 1).

Multiemployer plans are found throughout the economy in highly unionized industries (see Figure 1). Almost 40 percent of multiemployer participants work in construction; construction plans generally rely on a large number of small contributing employers. About 15 percent of all multiemployer participants are in the transportation industry and covered by Teamsters plans, which tend to be among the largest plans (see Appendix). Other industries in which multiemployer plans operate include retail food, health care, entertainment, print media, communications, printing, and mining.

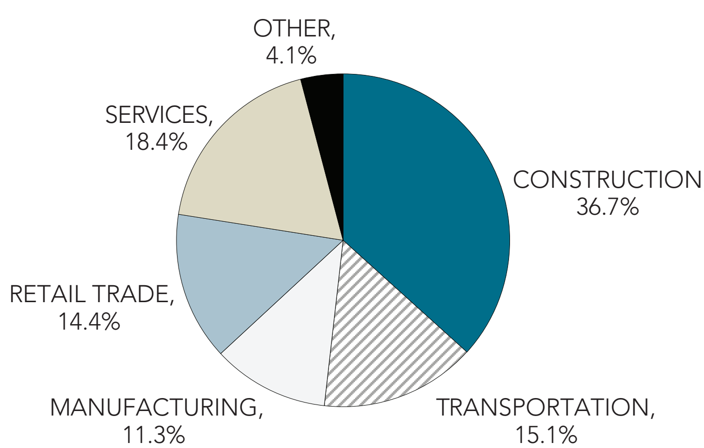
Multiemployer plans are typically set up as trusts, as required by the Taft-Hartley Act and the Employee Retirement Income Security Act of 1974 (ERISA), and managed by a board of trustees appointed in equal numbers by the union and the employers. The trustees, as plan fiduciaries under ERISA, have responsibility for managing the assets and administering the benefits.

The contributions to the plan are negotiated in the bargaining agreements between an employer and its union. A typical amount might be $5 for each hour that a participant works. The trustees then, working with a given revenue stream, set the benefits.

Multiemployer plans have a different benefit structure than traditional single employer defined benefit plans. Single employer plans historically provided workers with a percentage of final salary for each year of service, say 1.5 percent, so workers with 30 years of service would receive 45 percent of final salary for as long as they live. The benefits under a multiemployer plan are rarely based on salary. Instead, multiemployer plans generally pay a dollar amount per month for each year of service, say $60, so a worker with 30 years of service would receive $1800 a month at age 65 for life.[3] Moreover, unlike traditional plans, multiemployer plans offer portability – participants retain service if they move from one sponsoring employer to another.[4]

Table 2 compares multiemployer plans to other components of the employer-sponsored retirement system. Several factors stand out. First, multiemployer plans have 10.4 million participants, so they are a sizable segment of the retirement system. Second, these plans (as well as single employer defined benefit plans) differ from state and local plans in terms of maturity: they have fewer active relative to total participants. Third, multiemployer plans have modest assets – 40 percent as many participants as state/local plans but only 15 percent of the assets. Fourth, average benefits are roughly half of those in the state/local sector and about 80 percent of those provided by single employer defined benefit plans.[5] Finally, the multiemployer system consists of relatively few plans – about 1400.

Figure 1.
Multiemployer Plan Participants by Industry, 2011



Source: Pension Benefit Guaranty Corporation (2013).

Table 2.
Multiemployer Plans in the Employer-Sponsored Retirement System, 2011

Plan type	Participants: Total (millions)	Participants: Active/total	Plans	Assets (trillions): Total	Assets (trillions): Per participant	Average Benefit
Private DC	84.3	83%	637,100	$3.7	$43,400	NA
Private single employer DB	30.4	40	43,800	2.1	67,400	$15,700
State/local DB	28.6	50	3,500	3.1	106,700	25,400
Multiemployer	10.4	40	1,400	0.5	44,600	12,600

Sources: Authors' calculations from U.S. Department of Labor (2013); and U.S. Census Bureau (2012).

CHANGING FINANCES OF MULTIEMPLOYER PLANS, 1980 TO PRESENT

Multiemployer plans thrived during the 1980s and 1990s; the stock market soared, participants had plenty of work, and employers were making good profits. By the late 1990s, many plans were fully funded, but unions did not want to interrupt the flow of contributions because restarting the contributions when markets cooled would require reducing other components of compensation.[6] The downside of the reluctance to cut contributions is that plans repeatedly increased benefits in order to ensure that contributions remained tax deductible for employers.

The good times ended with the bursting of the dot.com bubble in 2000. All pension plans were hurt, but the collapse of stock prices was particularly painful for multiemployer plans, which – with many retirees and declining numbers of active participants – had been living off investment returns.[7] As the returns turned to losses, funded levels plummeted.

Although by 2004 multiemployer plans appeared to have weathered the storm, the multiemployer plan community worked with Congress to update funding rules.[8] This effort culminated in the Pension Protection Act of 2006 (PPA), the key innovation of which was to require trustees to look past valuations on a single date and assess where the plan is headed. Plans with a projected funding deficiency within four or five years or near-term cash flow problem are deemed "critical;" those with less serious problems are "endangered." Critical plans are characterized as being in the red zone, endangered plans in the yellow zone, and all other plans in the green zone. Plans in the critical or endangered categories must take corrective action. The law also provided multiemployer plans with new tools to achieve these goals.

When a plan goes into the yellow zone, the PPA restricts contribution reductions and benefit increases and requires that the trustees come up with changes to close the funding gap by at least one third over a 10-year period. When a plan goes into the red zone, in addition to restrictions on contribution cuts and benefit increases, the plan must stop paying lump sums or other front-loaded benefits to new retirees and devise corrective actions to get out of the red zone within a 10-year period. Under such a scheme, the trustees can cut benefits for current workers that are usually protected from cutbacks – so-called 'adjustable benefits,' such as recent benefit increases, early retirement subsidies, and other benefit features.[9]

In 2008, when the PPA first took effect and before the financial crisis, data for a sample of one quarter of multiemployer plans show that 80 percent of plans were in the green zone, 11 percent in the yellow zone, and 9 percent in the red zone (see Figure 2 on the this page).[10] In many cases, for plans in the yellow zone, changes already made were projected to carry them out of the zone within the allotted time.[11]

Then the markets crashed and the economy tanked, causing unfunded liabilities to spike and the number of troubled plans to soar. The post-crisis zone count can be measured in two ways: 1) the classification as designated by the actuaries; and 2) the official classification that reflects the trustees' ability to freeze at their previous year's classification under relief legislation passed in 2008.[12] Figure 2 shows the actuaries' count.

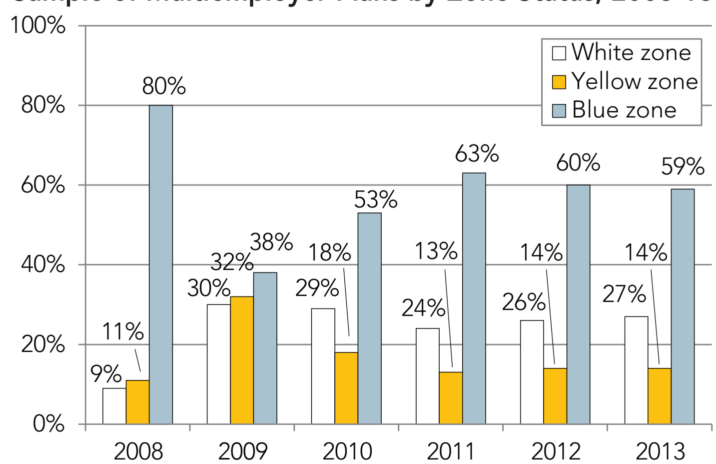
As the economy and the stock market began to recover, a large share of multiemployer plans moved from the yellow zone back to the green, but the share in the red zone declined only slightly. This should not be surprising. The plans in the red zone faced possible insolvency in the next 10 years, an outlook that does not change materially with an uptick in stock prices. Moreover, the recession that followed the financial crisis sharply reduced the availability of work for participants in some troubled plans, particularly in the construction industry where the recovery has been very slow.

The severity of problems within the red zone varies a lot.[13] In 2010, roughly 65 percent of plans have programs that should enable them to exit within the 10-year period; about 10 percent expect to emerge from the red zone over a longer period, and about 25 percent have basically given up and are trying to forestall insolvency, which would require the reduction of benefits to PBGC-guaranteed levels.[14] A more recent study by the U.S. Government Accountability Office suggests a similar percentage have given up.[15] These plans tend to be in shrinking industries – printing/newspapers, transportation, manufacturing, entertainment (movie theaters) – or those seriously hurt by the recession, such as construction. Essentially, the plans that have given up contend that they have cut benefits to the bone and raised contributions dramatically and that additional contribution increases would threaten the employers' competitiveness and additional benefit reductions would diminish support among workers.

THE FUNDED STATUS OF MULTIEMPLOYER PLANS

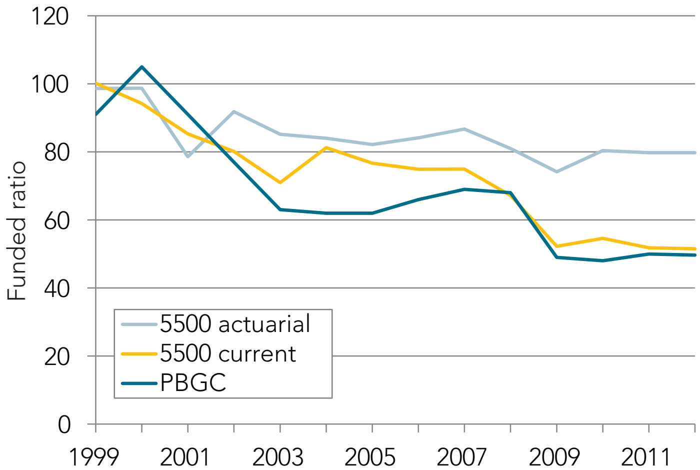
Before the Pension Protection Act of 2006, both single and multiemployer plans had considerable flexibility with regard to funding; the legislation eliminated most of the discretion for single employer plans because of the perceived risks associated with having a sole sponsor. Single employer plans must now use specified mortality tables and interest rate assumptions (based on the investment grade corporate bond yield curve) and value assets at close to market value. And they must amortize liabilities over seven years.

Figure 2.
Sample of Multiemployer Plans by Zone Status, 2008-13



Note: More than 350 plans are represented in all six surveys. Source Segal Constulting (2014).

Figure 3.
Funded Status of Multiemployer Plans under Various Definitions, 1999-2012



Sources: Pension Benefit Guaranty Corporation (2013; and authors' calculations from U.S. Department of Labor, Form 5500 (1999-2012).

In contrast, multiemployer plans still, for reporting purposes, can use a broad array of assumptions and methods as well as smoothed assets. These plans – like state and local government plans – discount benefit promises by relatively high expected returns – 7.5 percent or more.[16] Multiemployer plans also enjoy longer amortization periods than single employer plans, although these periods have been reduced by the PPA.[17] The thinking was that multiemployer plans need a longer period for funding because contribution rates are fixed for the duration of the contract and the risks of longer funding would be offset by the pooling of employer contributions and assets.

Three sets of funded ratios are available for multiemployer plans – two from the U.S. Department of Labor's (DOL) Form 5500 and one adjusted for PBGC assumptions (see Figure 3). The DOL Form 5500 presents both a current view and an actuarial smoothed view. The differences between the two are the valuation of assets and the interest rate used to calculate liabilities. The actuarial view averages asset values over a period of time and uses the expected return on plan assets as the discount rate. The current view is based on the market value of plan assets and a liability calculated using a four-year average yield on 30-year Treasuries as the discount rate. The PBGC number is also based on the reported market value of assets, but adjusts the reported vested liabilities using a standardized interest rate factor along with an assumed mortality table that reflects the cost of purchasing an annuity at the beginning of the year. Regardless of the definition, multiemployer plans were well funded during the 1990s, and then saw their funded levels collapse in the wake of two financial crises.

STRUCTURAL CHALLENGES WITH MULTIEMPLOYER PLANS

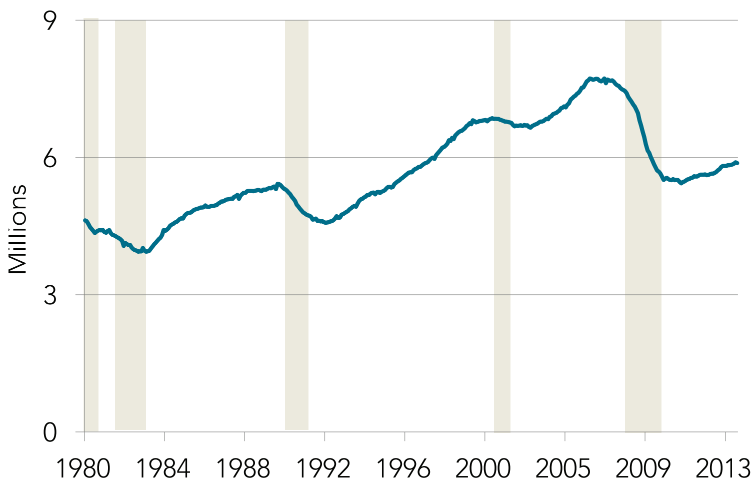
Overall, the funded status of multiemployer plans is very close to that of state and local plans, using similar assumptions. But multiemployer plans face three structural challenges that state and local plans do not. First, the construction industry, which supports the largest component of multiemployer participants, is highly cyclical. Second, the lack of new entrants leads to a very high ratio of retirees to workers. Third, withdrawal liability – the payments required when an employer exits a plan – is often inadequate so that "orphaned" participants – those left behind when employers exit – create a burden for remaining employers.

Cyclical Nature of Construction

Construction, which accounts for about 40 percent of the multiemployer participants and 55 percent of all plans, is highly cyclical.

As shown in Figure 4, construction employment always dips sharply during recessions (as shown by the shaded areas). The most recent recession and ensuing slow recovery hit the construction trades particularly hard: employment dropped from 7.5 million at the economic peak in 2007 to 5.6 million by 2010 and has been recovering only slowly since then. Less work means lower employer contributions.[18] For a fully funded plan, such a reduction in contributions would not be an issue, because less work also means less accrued benefits for plan participants. But for a financially troubled plan, the contributions for each active worker exceed the costs of the worker's future benefits as they also cover a portion of the unfunded liability.

Figure 4.
Construction Employment over the Business Cycle, 1980-2013

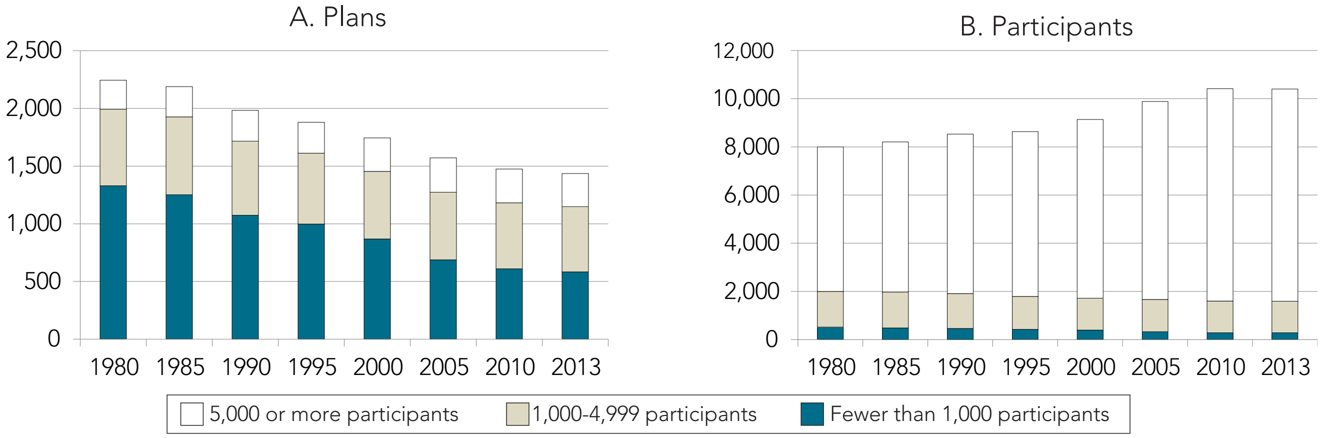


Sources: U.S. Census Bureau, Current Population Survey (1980-2013); and National Bureau of Economic Research (2014).

Few Active Workers

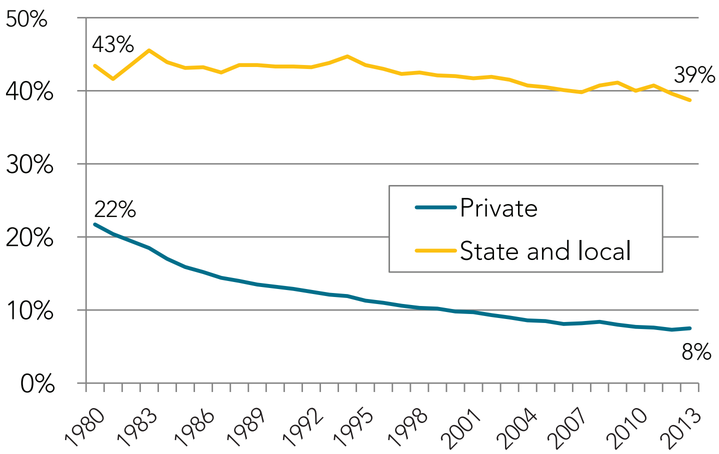
The number of multiemployer plans has contracted over the last three decades due to mergers, and the number of participants has increased only slightly (see Figure 5). The reason is twofold. First, unions are prime movers behind multiemployer plans, and union membership in the private sector has declined from 22 percent of workers in 1980 to 8 percent in 2013 – a very different pattern from that in the state and local sector (see Figure 6). Second, many of the industries where multiemployer plans exist, such as manufacturing, have declined.

Figure 5.
Number of Multiemployer Plans and Plan Participants by Size of Plan, 1980-2013



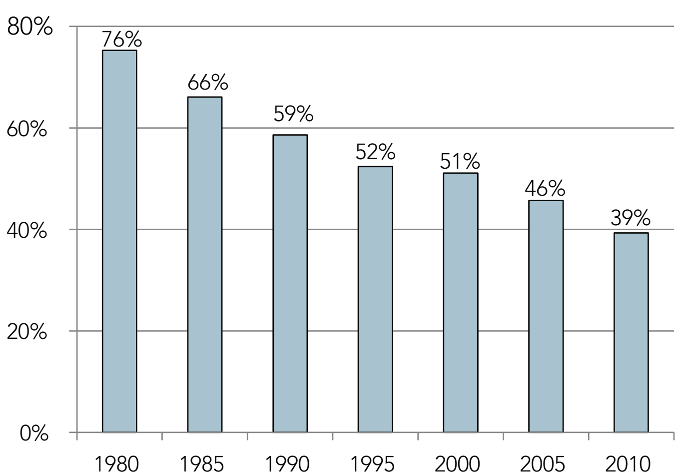
Sources: Pension Benefit Guaranty Corporation (2013).

Figure 6.
Percent of Wage and Salary Workers in Unions, 1980-2013



Source: Hirsch and Macpherson (1980-2013).

Figure 7.
Active Workers as a Percent of Total Participants in Multiemployer Plans, 1980-2010



Source: Solis, Geithner, and Gotbaum (2013).

These trends are unlikely to reverse. First, employers negotiating collective bargaining agreements are now reluctant to enter multiemployer plans, because they effectively are assuming some portion of the plan's unfunded liability. Even if the plan is currently fully funded, they expose themselves to future expense if market conditions deteriorate and the plan becomes underfunded as a result. And, second, some employers are strategically negotiating withdrawals, based on the conclusion that the plan will eventually become insolvent and it is better to withdraw now before liabilities increase.

The lack of new blood has led to the rapid maturation of these plans. Multiemployer plans now have a large number of older participants, who have accumulated substantial benefits under the plan and are either retired or close to retired, and a much smaller number of younger workers (see Figure 7). These mature plans are much more vulnerable to financial losses.

Inadequate Withdrawal Liabilities and Burden of Orphan Workers

Employers who participate in multiemployer plans are allowed to exit the plan at any time (subject to collective bargaining obligations). In this case, their orphan workers no longer accrue benefits, but are entitled to vested benefits earned to date. To ensure the payment of benefits to these workers, the law requires exiting employers to pay a withdrawal liability to cover their share of the plan's underfunding (if any).

The system, however, has serious limitations and often leaves the remaining employers burdened. First, up to 2000, when plans were typically fully funded, withdrawing employers did not face any liability when they left, even though financial markets collapsed shortly thereafter. Second, in situations where unfunded liabilities did exist, collections could be minimal if exits were due to bankruptcies. Third, even in the absence of bankruptcy, the calculation may not capture the employer's full liabilities because it is based on past contributions rather than attributed liabilities.[19] Fourth, the law places a 20-year cap on employer liability payments. Finally, special rules allow, under certain circumstances, employers in the construction and entertainment industries to avoid any withdrawal liability.[20] To the extent that withdrawing employers do not pay enough to cover the full cost of their workers who remain in the plan, the burden falls to the remaining employers.

Orphan participants constitute a significant share of total multiemployer participants. In 2010, a group of 400 plans reported having 1.3 million orphan participants out of 6.7 million total participants – roughly 20 percent. Not surprisingly, orphans are a much larger share of total participants for plans in the red and yellow zones than for those in the green zone.[21]

CONCLUSION

Multiemployer plans are a significant component of the employer-sponsored retirement system and, like other employer plans, have been challenged by the twin financial crises since 2000. While the majority of multiemployer plans are returning to financial health, a substantial minority faces serious funding problems that are exacerbated by unique structural challenges facing this sector. These challenges include the cyclical nature of the construction industry (which accounts for a plurality of plan participants), a low ratio of active to total participants that increases the burden on underfunded plans, and withdrawal penalties for exiting companies that are insufficient to cover the costs they leave behind.

The purpose of this *brief* was to provide a sense of the overall landscape and trends affecting multiemployer plans. Subsequent briefs will probe more deeply into the nature of the problems facing underfunded plans, assess the potential for the PBGC to protect workers in multiemployer plans, and evaluate proposed solutions. ■

REFERENCES

Defrehn, Randy G. and Joshua Shapiro. 2013. "Solutions not Bailouts: A Comprehensive Plan from Business and Labor to Safeguard Multiemployer Retirement Security, Protect Taxpayers and Spur Economic Growth." Washington, DC: National Coordinating Committee for Multiemployer Plans.

Hirsch, Barry T. and David A. Macpherson. 1980-2013. "Union Membership and Coverage Database." Available at: *http://www.unionstats.com.*

James, William. 2014. Personal communication. Unpublished data from the Pension Benefit Guaranty Corporation.

Mazo, Judith F. and Eli Greenblum. 2012. "Multiemployer Pension Plans Respond to the Financial Crisis." In Reshaping Retirement Security, eds. Raimond Maurer, Olivia S. Mitchell, and Mark J. Warshawsky. Oxford, United Kingdom: Oxford University Press.

McMurdy, Keith R. 2009. "Multiemployer Withdrawal Liability: Understanding the Basics." Philadelphia, PA: Fox Rothschild LLP.

National Bureau of Economic Research. 2014. "US Business Cycle Expansions and Contractions." Cambridge, MA.

Pension Benefit Guaranty Corporation. 2013. "Data Book Listings." Washington, DC. Available at: *http://www.pbgc.gov/documents/2012-Data-Book-Tables.pdf.*

Pension Benefit Guaranty Corporation. 2014. "FY 2013 PBGC Projections Report." Washington, DC.

Segal Consulting. 2014. "Survey of Plans' 2013 Zone Status." Benefits, Compensation, and HR Consulting (Winter 2014). New York, NY.

Solis, Hilda L., Timothy F. Geithner, and Joshua Gotbaum. 2013. "Multiemployer Pension

Plans: Report to Congress Required by the Pension Protection Act of 2006." Washington, DC.

U.S. Census Bureau. 2012. Survey of Public Pensions: State- and Locally-Administered Defined Benefit Data. Washington, DC.

U.S. Census Bureau. Current Population Survey, 1980-2013. Washington, DC.

U.S. Department of Labor, Pension and Welfare Benefits Administration, Office of Policy and Research. 2013. Private Pension Plan Bulletin Historical Tables and Graphs. Washington, DC.

U.S. Department of Labor, Pension and Welfare Benefits Administration, Office of Policy and Research. Form 5500, 1999-2012. Washington, DC.

U.S. Government Accountability Office. 2013. "Private Pensions: Timely Action Needed to Address Impending Multiemployer Plan Insolvencies." Report No. GAO-13-240. Washington, DC.

ENDNOTES

[1] Pension Benefit Guaranty Corporation (2014).

[2] Defrehn and Shapiro (2013).

[3] Alternatively, benefits could be a specified percentage of the employer's required contributions. For example, a monthly benefit could be set at 2 percent of total required contributions, so that a participant with 1,500 hours of work at a $2 hourly contribution rate would accrue $60 of monthly benefits. Some multiemployer plans have different benefits for different years, which reflect changes in the benefit formula over time.

[4] Further, many plans maintain reciprocity agreements by which participants can aggregate service under multiple plans to qualify for benefits.

[5] The average benefit is total benefits divided by the number of participants.

[6] Mazo and Greenblum (2012).

[7] Solis, Geithner, and Gotbaum (2013).

[11] Mazo and Greenblum (2012).

[12] Worker, Retiree and Employer Recovery Act of 2008.

[13] Mazo and Greenblum (2012).

[14] Mazo and Greenblum (2012).

[15] U.S. Government Accountability Office (2013).

[16] Solis, Geithner, and Gotbaum (2013).

[17] Before the PPA, increases in liabilities from providing benefit increases retroactively could be amortized over 30 or 40 years; gains and losses from changes in actuarial assumptions over 30 years; and experience gains and losses over 15 years. The PPA shortened the amortization periods for all types of unfunded liabilities that arise after 2008 to 15 years; earlier liabilities can still be amortized over extended periods. To help ease the burden experienced during the financial crisis, the Pension Relief Act of 2010 lengthened the amortization period to 29 years for the portion of any experience gain or loss attributable to net investment losses incurred in 2008-2009. In addition, during the same period, the Act allowed plans to smooth assets over 10 years, rather than five years.

[18] Some multiemployer plans have reported employment declines of 30 percent or more.

[19] In addition, plans have the option to calculate an employer's withdrawal liability using the plan's funding rate, typically 7.5 percent, which may be fine for an ongoing plan but too high for a termination liability.

[20] In the case of plans operating in the construction or entertainment industries, an employer is not required to pay a withdrawal liability if the employer is no longer obligated to contribute under the plan and ceases to operate within the jurisdiction of the collective bargaining agreement (or plan) or does not resume operations within five years without renewing its obligation to contribute. Slightly different rules apply to the trucking, household goods moving, and public warehousing industries and – for partial withdrawal – to the retail food industry. See McMurdy (2009).

[21] Solis, Geithner, and Gotbaum (2013).

APPENDIX

Table 1.
Ten Largest Multiemployer Plans, by Number of Participants 2012

Plan name	Participants	Funded ratio		Industry	Zone status
		Actuarial	Current		
Western Conference of Teamsters Pension Plan	576,103	90.4	57.0	Transportation	Green
National Electrical Benefit Fund	491,919	84.9	44.2	Construction	Green
Pension Plan of the UNITE HERE National Retirement Fund	415,067	67.0	37.6	Finance/ insurance	Green
Central States, Southeast & Southwest Areas Pension Plan	411,238	53.9	35.2	Transportation	Red
I.A.M. National Pension Plan	265,258	104.4	56.4	Manufacturing	Green
1199 SEIU Health Care Employees Pension Fund	235,195	89.6	46.1	Health care and social assistance	Green
UFCW International Union-Industry Pension Fund	220,154	108.2	62.5	Services	Green
UFCW Consolidated Pension Fund	184,724	88.8	45.8	Services	Green
Central Pension Fund of the IUOE & Participating Employers	182,289	87.8	46.2	Finance/ insurance	Green
Southern California UFCW Unions & Food Employers Joint Pension Trust Fund	167,840	75.6	43.5	Services	Red

Sources: Authors' calculations from U.S. Department of Labor, Form 5500 (2012).

ABOUT THE CENTER

The mission of the Center for Retirement Research at Boston College is to produce first-class research and educational tools and forge a strong link between the academic community and decision-makers in the public and private sectors around an issue of critical importance to the nation's future. To achieve this mission, the Center sponsors a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources. Since its inception in 1998, the Center has established a reputation as an authoritative source of information on all major aspects of the retirement income debate.

AFFILIATED INSTITUTIONS

The Brookings Institution
Massachusetts Institute of Technology
Syracuse University
Urban Institute

CONTACT INFORMATION

Center for Retirement Research
Boston College
Hovey House
140 Commonwealth Avenue
Chestnut Hill, MA 02467-3808
Phone: (617) 552-1762   Fax: (617) 552-0191
E-mail: crr@bc.edu   Website: http://crr.bc.edu

The Center for Retirement Research thanks Alert1 Medical Alert Systems, Charles Schwab & Co. Inc., Citigroup, ClearPoint Credit Counseling Solutions, Fidelity & Guaranty Life, Goldman Sachs, Mercer, National Council on Aging, Prudential Financial, Security 1 Lending, State Street, TIAA-CREF Institute, and USAA for support of this project.

 The authors wish to thank Dina Bleckman for helpful research assistance. The authors also thank David Blitzstein, David Blumenstein, Cathie G. Eitelberg, Karen Ferguson, Eli Greenblum, Ian Lanoff, Norman Stein, and the staff of the Pension Benefit Guaranty Corporation for helpful comments.

The research reported herein was supported by the Center's Partnership Program. The findings and conclusions expressed are solely those of the authors and do not represent the views or policy of the partners or the Center for Retirement Research at Boston College.

KEYS TO COMMUNICATING TARGET BENEFIT, SHARED-RISK AND MULTI-EMPLOYER PLANS

By Susan Deller

Editor's Note: This article was originally published in Benefits Canada, June 2014. It is reprinted here with permission.

Susan Deller is a principal with Eckler Ltd. and specializes in benefits communications consulting.

Target benefit, shared-risk and multi-employer plans all belong to the same *genus of pension plan*. While each has its own unique characteristics, they share the same basic principles. One of the main things these plans have in common is the ability to adjust benefits up or down under certain circumstances. Because of this, pension regulators agree that members need to be fully aware of the benefits and—more importantly—the risks of these plans.

That means sponsors of target benefit, shared-risk and multi-employer pension plans must ensure they spend time communicating with plan members. But that doesn't mean distributing the minutes of the last board meeting. And it doesn't mean posting the latest actuarial valuation on your website.

While pushing out a bunch of numbers and facts may give the plan sponsor a warm and fuzzy feeling that it's being fully transparent, it won't do much to enlighten the average member. At best, it will create the illusion that communication has happened. At worst, it will leave members with a false sense of security—and could, ultimately, do more harm than good.

Because of the unique design of these plans, the concept of enhanced disclosure—the notion that members have a right to know about the factors that can influence whether their target benefits are increased or decreased—has been enshrined in both existing and pending legislation in jurisdictions where these plans are on the table. But disclosure (even enhanced disclosure) and communication are two different things. You can meet the legal requirements of enhanced disclosure but still do a lousy job of communicating with plan members.

When members want and need to understand what's going on, simply presenting the facts isn't enough—especially if those facts are shrouded in the cryptic language of actuarial science. Take, for example, New Brunswick's shared-risk model, with its requirement to disclose the most recently calculated "open group funded ratio" and "termination value funded ratio." Reporting these numbers may satisfy the letter of the law, but if you don't spell out what they mean, what's the point?

Enhanced disclosure is valuable only to the extent to which the facts—and their implications—are explained to members, in ways the average non-pension expert can understand. This requires a high degree of collaboration between the plan's technical experts and its professional communicators. It also requires the discipline to do the following:

put information in plain, easy-to-read language;

focus on what's relevant to the member (and strip out what's not);

test and adapt your communications to meet member needs; and

personalize content, where practical, to make it targeted and meaningful.

Above all, it requires credibility. Members won't buy the message if they don't trust the source. Trust is the cornerstone of all three of these plans—and creating it should be a primary objective. Without trust, even the most brilliant communication is a wasted effort. ■

These are the views of the author and not necessarily that of Benefits Canada.

ON THE LIGHTER SIDE – A FORM 5500 POEM ONCE UPON A MONDAY DREARY

By Jennifer Fagan

Once upon a Monday dreary, while I pondered weak and weary,
Over many a quaint and curious filings of yore;
While I nodded, nearly sleeping, suddenly there came a pinging;
As of someone gently pinging, pinging my email once more.
'Tis some consultant,' I muttered, 'pinging my email once more' –
Only this and nothing more.

Ah, distinctly I remember it was in the humid summer;
And each data request wrought its ghost upon the floor.
Eagerly I wished the morrow; - vainly I had sought to borrow,
From ERISA surcease of sorrow;
But the Act remained obscure;
Useless here forevermore.

And the silken sad uncertain loading of Relius,
Filled me with anxiety never felt before;
So that now to still the beating of my heart, I stood repeating;
'Tis some consultant seeking my response once more –
Some consultant seeking my response once more; -
This it is, and nothing more,'

Presently my unease grew stronger; hesitating then no longer,
`Sir,' said I, `or Madam, truly your patience I implore;
But the fact is Relius was crashing, and so gently you came rapping; And so faintly you came tapping, pinging my email once more;
But only questions there, and nothing more.

Deep into the backup peering, long I sat there wondering, fearing, Doubting we would file in time to maintain professional rapport;
But the confusion was unbroken, and the Schedules gave no token;
And the only query there spoken was "Who is the administrator?"
This I whispered, and an echo murmured "*the plan sponsor.*"
Merely this and nothing more.

In my chair I sat turning,
For the dearth of data I found concerning;
Soon again I heard a pinging somewhat louder than before.
'Surely,' said I, 'surely that is the participant count,
What hope of timely filing could this PDF restore?;
Or will we require the 5558, the form I most abhor?;
But 'tis the Schedule C and nothing more!

Open here I flung the print outs,
When, with many wild shouts;
In Outlook appeared a zip file with data at its core;
Could this be a July filing? A thought that is most beguiling!

But my hope will not endure;
For a timely filing we did not secure;
The 5558 is now assured;

Quoth ERISA, 'October.'

Jennifer A. Fagan is a Benefits Advisory and Compliance Consultant with Towers Watson in Boston, Mass. She composed this poem after many frustrating attempts in compiling vendor information for Form 5500 filings.

PENSION
SECTION
NEWS

475 N. Martingale Road, Suite 600
Schaumburg, Illinois 60173
p: 847.706.3500 f: 847.706.3599
w: www.soa.org