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PENSION FINANCE RESOURCES

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The Pension Protection Act may currently be the most urgent topic of study for U.S. pension actuaries, but most meetings and conferences also have sessions with "Financial Economics" or "Pension Finance" as part of their titles. And, the FE/PF topic is at the center of considerable debate in both American and Canadian actuarial circles at present. The study of finance underpins economic analysis taught in business schools. For many non-actuaries, these financial tools have long been the basis for the analysis of pension liabilities. Actuaries were not unaware of this—you may recall the 600-page text published by The Actuarial Foundation in 1998.

One charge of the Joint AAA/SOA Pension Finance Task Force (originally known as the Joint AAA/SOA Task Force on Financial Economics and the Actuarial Model) is to promote educational opportunities for actuaries so that we may integrate finance into our work. The Task Force has created a library of material on the SOA Web site containing well over 100 papers, essays, articles, and newsletters. Various points of view are represented. Authors include academics, economists, and investment professionals, as well as actuaries. A description of what is available on-line follows, along with a few reasons why you might find the material (and the resource) useful.

Where to Find the Pension Finance Resources

The direct link to the home page of this resource is http://www.soa.org/professional-interests/pension/research-thinking-ahead/pen-finance-resources.aspx or type "pension finance" in the Quick Search block and one or more of the first few items listed should be a link to the Pension Finance Resources home page.

There are several things going on at Pension Finance Resources:

- There is a link to the Pension Actuary's Guide to Financial Economics and also an Excel worksheet that illustrates the tax arbitrage problem described in the Guide. The guide was created by the task force to give an overview of financial concepts that are applied to measure pension benefit liabilities. If you decide that you wish to purchase a print copy of the Guide, they can be ordered for only $15 here.

- The links to "Key Points" and "Changes Needed to Actuarial Practice" open to pages with individual articles that helped bring the finance topic to the attention of the wider pension actuarial community.

- At the bottom of the home page under the heading "Further

Members of Pension Section Council are available to explain the Retirement 20/20 initiative to your local actuarial club or any other interested group. If you'd like to arrange for a presentation - either in person or via Web cast - please contact Ann Gineo at agineo@segalco.com. Ann is a member of Pension Section Council and leader of the Retirement 20/20 Communication and Outreach subgroup.

Research" are several links leading to broad topical categories.

But, the newest resource featured is the list of readings of a somewhat ad hoc and eclectic nature, collected as a spin-off from the work of the task force. Members of the task force often circulate readings as they debate diverse points of view. Other readings are drawn from academic papers written by economists and financial analysts. The literary quality of these papers may be uneven, but all of them—as implicitly suggested by their inclusion in the first place—contain relevant insights and add to the growing body of knowledge around this relatively nascent topic. As with any library, the choice of which items to pull from the shelf depends on individual interests and needs.

Let me suggest two ways that I have found most useful for reviewing this list:

1. A click on the title "Joint Academy/Society of Actuaries Pension Finance Task Force Library," brings you to a page with a short list of topics. Click on a topic and the title/authors are listed. Occasionally, the links will take you to external Web pages (due to copyright considerations), and some articles are listed under (or linked to) more than one topic. Keep in mind that the topical assignment to each reading—and even the list of topics itself—is often a matter of subjective judgment.

2. The alternative is a link to open an Excel file named "Pension Finance Knowledge Sharing Index." This option is repeated on the topic-oriented pages as well. Several advantages of this approach come to mind. You can search for key words, authors or subject; the file includes abstracts for each listing; and you can download the Excel file for further investigation off-line. The links to the readings are embedded within the Excel file so you are all set to access documents at your leisure.

The readings range in scope from the seminal 1958 academic paper by Modigliani and Miller (or M&M for short) to a newspaper interview with Herbert Simon. The irony is that while Miller's current publisher is the University of Chicago, a leader (if not the leader) in the realm of finance, all three of the above authors/academicians were teaching at Pittsburgh's Carnegie Tech (now Carnegie-Mellon) in the 1950s. These "M&M propositions" are generally recognized as the kicking-off point for the new area of study that came to be known as financial economics. Simon's concurrent idea of "bounded rationality" grew into behavioral economics. All three eventually earned Nobel prizes in economics.

Why Spend Time on Finance?

The recent trends in law, accounting (U.S., Canadian and global), Actuarial Standards of Practice, and Wall Street/Bay Street analysis have all been affected by the business school finance model. Starting in the mid-1970s, investment bankers took the lead in the application of financial analysis to pension liabilities. Meanwhile, the attention of pension actuaries continued to be focused on ERISA and SFAS 87 (prior to 132/158), and CICA rules in Canada. Since both pension funding and financial accounting were rooted in traditional actuarial methods prior to the ascendancy of finance to its current prominence, we actuaries too easily ignored the growing influence of the finance view outside our ranks. Over time, there developed a schism between the adherents of these two approaches.

The 2003 publication of "Reinventing Pension Actuarial Science" by Bader and Gold precipitated an awareness of the schism. Their paper was the one that began to provoke a broader discussion among pension actuaries, although others had been writing on the usefulness of finance concepts for years. This new awareness led to the Great Controversy Symposium, imbedded within the June 2003 SOA meeting in Vancouver, where more than 20 papers were presented and discussed.

"Reinventing" implies replacing traditional actuarial methods with financial concepts and methods. The U.K. actuary, John Shuttleworth, clearly agrees. His Staple Inn essay was republished in the October 2002 *Risks and Rewards* newsletter. In it, he describes the shift, saying "... for many actuaries, reinventing their knowledge base will be pleasurably therapeutic, even cathartic." He asks not to be viewed as inflammatory, but his writing is colorful and active. The online version can be found here.

Dimitry Mindlin presents an evolutionary view of the blending of finance with traditional actuarial methods in his paper "Reaffirming Pension Actuarial Science," originally published in the April 2005 *Pension Forum* (Vol. 16, No. 2). The online version can be found here.

A large part of the controversy is exemplified by these positions. Are traditional actuarial methods outmoded, to be replaced with modern financial analysis as taught in business schools? Or is a blending—an evolution—the path to the future? Each position has supporters. Suffice it to say that the use of financial economics tools and methods for valuing assets and liabilities is predominant among non-actuaries. This fact alone requires pension actuaries to understand the finance point of view.

The focus placed on "mark to market" liability measurement by the new Pension Protection Act in the United States is based, however imperfectly, on finance. The accounting community is, albeit slowly, shifting toward the same market-based measurements. Our own standards of practice are also being affected. The "money" people, such as CFOs, with whom we consult with increasing frequency have been schooled on financial economics.

For example, large plan clients frequently ask for expected benefit disbursements year by year, often for the next 30 to 50 or more years. This data is then used to feed an investment consultant's model of plan assets and liabilities. When the opportunity arises, you can be more influential in the discussion if you are able to articulate your ideas in the language used by the finance folks and their investment consultant.

Conclusion

My hope is that in one way or another I have planted a seed of interest in the coming together of modern finance and traditional actuarial science. The crossroads was built, for those of us based in the United States, when ERISA granted pension participants a claim on the assets of corporate pension plan sponsors. That, to adopt a frequently-used adage, changes everything.

Additions will be made to our list of readings from time to time. I would be happy to receive suggestions of articles that you have found useful. If not obvious, information on copyright ownership would help the SOA staff in securing necessary permissions.

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