SOCIETY OF ACTUARIES



LOOKING OVERSEAS

FOR NEW IDEAS IN RETIREMENT SYSTEMS

THE FINANCIAL RISK OF LIFE AND ANNUITY UNCLAIMED PROPERTY

Managing the financial risk of life and annuity unclaimed property

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What should an insurer do to manage the financial risk of life and annuity unclaimed property? Redesigning your business process is just one of the many helpful suggestions this article makes. **By Ronald Poon-Affat, Leanne McQuade and Denis Farmer**

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Editorial

ARE YOU SURE ABOUT THAT?

BY DAVE INGRAM

"AS FAR AS THE LAWS OF MATHEMATICS REFER TO REALITY, THEY ARE NOT CERTAIN; AND AS FAR AS THEY ARE CERTAIN, THEY DO NOT REFER TO REALITY."—ALBERT EINSTEIN

In the distant past of economics, Frank Knight famously defined risk and uncertainty as two separable concerns. Risk, the lesser concern, was all about statistical variability from known probability distributions. When a gambler bets upon a spin of a roulette wheel, he is taking a risk. When an investor funds a start-up company that intends to manufacture and sell a product based upon a new invention, his expected outcome is termed uncertain as there is no predefined range of potential results.

Less than 50 years after Knight's discussions, the development of modern finance started the process of displacing the idea of an intractable uncertainty with the sure knowledge of market prices. Black-Scholes-Merton (BSM) developed a process for backing into the parameters of risk, thereby totally eliminating uncertainty from discussions of finance. The practice of solving for a volatility parameter from market prices became ubiquitous. By specifying the distribution of possible future prices, the unknowable uncertainty was transformed into "simple" risk.

Actuaries, in our own way, have contributed to the elimination of uncertainty from the financial calculations that are our specialty. The actuarial price, for example, now references the best estimate price, without any load for, or necessarily recognition of, any uncertainty. In many situations where a single "fair" value is needed for accounting or to complete a transaction, using best estimate assumptions for all parameters of a calculation became the preferred practice.

There is a fundamental difference between these two processes, and that difference became a problem for actuaries. The BSM process includes an unknown, but definitely non-zero, provision for uncertainty while the actuarial process produces a value with a zero provision for uncertainty. Both come up short when extreme outcomes do not follow assumed distributions and interactions between risks act in unexpected ways.

Risk loading in actuarial pricing changed from an adjustment to each and every parameter based on the judgment of the actuary to a disciplined process. Unfortunately, this new process might ignore observed volatility and focus only on the least reliable value in the entire calculation, the estimate of extremely remote losses. Initially, actuaries saw nothing wrong with the fact that their estimates of risk loads were much lower than the "market implied" loads found in BSM or other market-price-based processes. After the severe losses of the stock market crash of 2001 showed the shortcomings of this assumption, actuarial practice shifted to incorporate market-consistent valuation of market-traded risks.

The process of modeling ALL risks in a statistical economic capital model that is the current rage in risk management involves the same transformation of uncertainty into statistical risk. It too comes up short.

The 2008 global financial crisis showed that the underlying assumptions of financial economics were not sufficient. Not only did the market not know the proper price for the mortgage securities, but they were also blissfully unaware of that fact.

My favorite explanation for the underlying cause of the problems with markets that totally mispriced risk is the Grossman-Stiglitz Paradox. The fundamental underpinning of the efficient markets postulate is that the market has processed all available

information. Grossman and Stiglitz point out that the efficient market postulate, if it were true, would make it uneconomic to actually perform any processing of information!

This leads me to a key point. As actuaries, we find ourselves working to build models and assess two types of situations: those where there IS a market and those where there IS NOT a market. In cases where a market currently exists, actuaries have deviated from existing practices of more than 100 years and are now working within the paradigm that loads for uncertainty are solely determined by markets. In the case of the non-market-traded risks, the accounting paradigm is moving inexorably toward requiring calculations from actuaries that are "market-consistent."

In both cases, the longstanding actuarial skills, talents and knowledge of fundamental analysis and modeling of uncertain future events are being largely cast aside.

The failure of financial markets to come even remotely close to properly pricing the risk and uncertainty of subprime mortgagerelated securities reveals that an important place remains for a disciplined approach to identifying and assessing uncertainty independent of the market. It is a role that is presumed by the efficient markets hypothesis, but has been shown to be uneconomic in markets that participants believe are efficient. This role should return to analysts combining knowledge of quantitative and qualitative methods, common sense and behavioral biases. It is a role that actuaries could fit into very well.

Actuaries have moved forward in the field of risk management. Our fundamental approach has also become the elimination of uncertainty. We do this through a process where everything is turned into a risk, a process assumed to have a known future probability distribution of gains and losses. But another role remains open that we are well suited for, the role that illuminates all forms of uncertainty.

The processes developed for eliminating uncertainty within our risk models can be reverse engineered to make those models into engines of uncertainty analysis. Our insights into the fundamentals underlying the events we are modeling can be highlighted rather than subjugated to the "knowledge" embedded into market prices.



Dave Ingram

Actuaries can become the Gurus of Uncertainty and the Keepers of the Black Swans. This is work supporting the efficient market postulate. It is the work presumed, but not performed, by the market participants. It is new work that will require some research and development. This work has started in Europe, where they have been struggling to develop "risk margins" for very long-term, illiquid, insurance products. Perhaps the first step in resolving that log jam would be to remember Frank Knight and admit that there is no risk involved in evaluating transactions 50 or more years in the future. It is all uncertainty.

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Letter From The President

RELEVANCE IS NOT A FOUR LETTER WORD ...

BY BRADLEY M. SMITH

THROUGHOUT MY TERM as president of the Society of Actuaries, I have talked with and listened to members, candidates, employers, faculty and government officials about the actuarial profession, the opportunities we have and the challenges we face. These conversations covered a variety of topics: the actuarial profession should focus on the importance of developing effective communication skills, the best ways to address societal problems with actuarial implications, and the SOA's vision to become the leading global provider of actuarial education.

The challenge for any profession is to remain relevant to all of its stakeholders because the world is changing so rapidly. The actuarial profession does this by our commitment to life-long learning—replenishing the technical skills that are an amortizing asset, but represent the life blood of our expertise. Remaining relevant means working at developing skills outside our areas of expertise: working on our deficits as well as our strengths, improving those skills which allow us to grow into more well-rounded business professionals.

At the top of my list is the importance of developing good communication skills. Whether we are presenting to a new client or explaining the intricacies of U.S. health care reform to the media, it is imperative that we are able to clearly and succinctly articulate both the problem we are being challenged to solve and the solution itself. We must be able to communicate the issues in a non-technical fashion to non-actuaries. Put bluntly, our communication skills (or lack thereof) can either make or break how we are perceived by our employers, clients and the public.

During my tenure as president, I have stressed the responsibility the profession has to both the clients we serve and to the public. There are enormous societal problems that have substantial actuarial components-the funding and potential reform of Social Security; Medicare, Medicaid and health care reform; the underfunding of public pension plans. These societal issues represent a significant and growing opportunity for the actuarial profession and we must become more active participants in developing solutions to these problems. While in theory it is easy to endorse the actuarial profession's responsibility to act in a manner that upholds the reputation of the profession and fulfills our responsibility to the public, in practice it may be harder and a little less clear what this means. But the messages are simple-do more than the bare minimum and what is required by the ASOPs. When asked a question, provide

insight into the problem in a manner easily understood by non-experts.

In my presidential address at the 2011 Annual Meeting I called for a grass roots effort to begin addressing societal issues and many SOA members have responded by taking a more active role. Those members are speaking to their community groups, writing to their Congressional representatives and educating the media and their readers. Our challenge will be to continue to build the momentum and to increase actuarial influence in the policymaking process.

The above two points bring me to the goal of expanding the SOA's global reach and influence. Much as actuaries must stay relevant to their employers and clients, the SOA must also remain relevant. We must address the needs of our current customers, adapt to changes and meet future marketplace demands. We cannot do so by standing still. We must seek opportunities to meet marketplace demand. If there is no opportunity for partnership or collaboration to get us there, in this competitive landscape, we must advance our own way forward.

My commercial responsibilities as chairman of Milliman and in my volunteer role as the president of the SOA have offered the opportunity to travel the world. Many of my

destinations have been developing nations where a major population shift is occurring from rural poor to urban middle class. As this newly developing middle class acquires more personal property, their needs for property and casualty insurance increases. In areas such as Saudi Arabia, the insurance industry. dominated by casualty and health carriers, has grown substantially in recent years. One of the country's ministers relayed there is currently only one qualified actuary in the country, with one student and that he foresees significant growth opportunities for the actuarial profession and for our clients in that part of the world. This scenario is being repeated in other developing nations as well. Clearly, there is a need that is not being met. This presents significant opportunities for the actuarial profession and more importantly for the SOA.

But, why does this present an opportunity for the SOA? Why not allow another organization take on this role?

Many of us have long thought of the SOA as a North American centric organization, yet you may not know that the SOA has realized strong, organic growth in its international membership year after year. Registered exam takers are growing fastest in international markets like Taipei, Hong Kong and Seoul. During meetings with employers and members in these areas and visits to universities, we are being asked to meet market demand including expansion into general insurance because the credentials you hold are so wellrespected and in demand.

These candidates and employers can choose between earning and hiring those with actuarial credentials from the United Kingdom, Australia or the SOA. Time and again, these groups are choosing the SOA.

The SOA is not unlike the organizations that employ us and our clients. Our employers and clients must create a strategic vision, develop plans, align and assign teams to implement, measure and refine those plans. They monitor changes in the business environment, address and mitigate risk and create strategies to ensure their business remains relevant, viable and vibrant. And that is exactly what we are doing at the SOA by adding general insurance education, launching advanced analytics training as professional development education, increasing content offerings geared toward Canadian members and raising visibility of SOA members as subject matter experts in the media.

As the business world has become more global, it has also shrunk. The SOA must be more deliberate. We are consciously developing objectives, strategies and tactics to help achieve our strategic vision to remain the global leader in actuarial education. Of course, this does not mean the SOA will forgo its core commitment to its members in North America, we see value in expanding our community. As a member, expanding this community means you will broaden your network and learn from different perspectives which could help spark a new idea for a product, service, a model or an area of research.

If the SOA is to continue to be the premier professional organization in the world it must provide education, research and credentialing in all actuarial disciplines, including general insurance. The SOA has committed to developing a general insurance curriculum and will offer its first exam in the fall of 2013. This is an exciting and challenging time for us, and I am confident that we can meet the challenge and offer our candidates and members the complete actuarial education they will need to remain competitive now and in the future.

Remaining competitive means that we must protect the core strengths of the

SOA, recognize and overcome our challenges, and stimulate progress in new areas of opportunity. As



Bradley M. Smith

an organization and as a community of members, we cannot remain unchanged for decades and decades. We must respond to marketplace needs. Taking a calculated risk, charting into waters that may be a bit unfamiliar, addressing issues that may be uncomfortable to us may be tough, but after all, isn't that what staying relevant means?

The SOA community is the largest and most well-recognized actuarial organization in the world. Its credentials—your credentials—are highly sought after and valued whether you are in Lincoln, Nebraska, Shanghai, China, Montreal, Canada or Sao Paolo, Brazil. The SOA's leaders, more than 3000 volunteers and 100+ staff are committed to maintaining and increasing that value. With your help, we will honor that commitment.

My year as president of the Society of Actuaries is coming to an end. Many projects critical to the future and stability of the profession have been undertaken and I have no doubt more are to follow. The SOA's initiatives are led by extremely capable member volunteers and staff, and I want to thank each and every one of you for the support you have given me this past year. I look forward to continuing our relationships and working together to further enhance our members' and candidates' experiences.

Bradley M. Smith, FSA, MAAA, is president of the Society of Actuaries. He can be contacted at *bsmith@soa.org*.

Centers of Actuarial Excellence

FIRST ANNUAL CAE STUDENT SUMMIT

BY GENA LONG AND ANTONIA COFFELT PHOTOGRAPHY BY NATHAN REYNOLDS

THE SOCIETY OF ACTUARIES (SOA) welcomed 41 student representatives from the Centers of Actuarial Excellence (CAE) universities to downtown Chicago in mid-August for the SOA's first annual CAE Student Summit. Attendees participated in a dinner and a daylong event to allow students to connect with each other, learn more about the SOA, gain career insights from experienced practitioners and share feedback with the SOA about their experience as actuarial students and exam candidates.

The students mingled with SOA President Brad Smith, SOA President-Elect Tonya Manning, SOA Past President Don Segal and SOA staff at a welcome dinner on August 16. The Summit kicked off on August 17 with a warmly received keynote speech from SOA President Brad Smith. Smith's talk was followed by staff members sharing information about current initiatives and a lively panel discussion on the future of the profession. The panel featured Smith and Manning along with Education general chairperson Jim Mange and member volunteer Elizabeth "Liz" Jobe.

The afternoon wrapped up with small group breakout sessions including a video challenge, where student groups were given one hour to create and shoot a short video promoting the actuarial profession to various demographics. Students pushed the limits of their imagination taking to the streets of Chicago to utilize the outdoor cafés on Michigan Avenue. The new event takes a step toward developing a better understanding of our candidates and finding ways to enhance that important relationship.





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"IT IS TRULY AMAZING WHAT YOU CAN TAKE AWAY FROM SUCH AN EXPERIENCE."





"IT WAS A TRUE JOY TO MEET BOTH EXPERIENCED ACTUARIES AND FELLOW STUDENTS."





"... IT WAS A GREAT EXPERIENCE THAT I WILL REMEMBER FOR THE REST OF MY LIFE."





The Financial Risk of Life and Annuity Unclaimed Property

Looking to manage the financial risk of life and annuity unclaimed property? Redesigning your business process is just one of the many helpful suggestions this article makes. **By Ronald Poon-Affat, Leanne McQuade and Denis Farmer** n the last year, state treasury and insurance regulators in the United States have become markedly more active in the unclaimed property area of the life and annuity industry. Consumer protection is suggested as the driver; however, it's important to look at the macro factors. What elements may have made it a priority now? And, with so much lack of clarity around the issue, what should an insurer do to manage the financial risk?

So why now? As mentioned, regulators cite consumer protection. Some in the industry, though, feel it may be a result of poor state financials, and a way of raising capital. Unclaimed property laws address transfer of property to states, the amount of time until funds are transferred, and what may be recovered by the owner. Typically, unclaimed property transfers to

the state five years after knowledge of an insured's death. As well, once ownership unclaimed of funds is transferred, or escheated, the ownership varies from state to state. Most unclaimed property remains, well, unclaimed once transferred to the states. If funds are claimed, some states pay the beneficiary the value of the policy as of the date of death and do not pay the accumulated interest. Some states, on the other hand, are legally obligated to pay all accrued interest on the policy as well.

Looking at the history of unclaimed property, guidelines of the Model Unclaimed Life Insurance Benefits Act, new regulations by individual states, and regulations already agreed to by settling insurance companies are critical in identifying what actions insurance companies should take to avoid an investigation and mitigate financial exposure.

More On Life And Annuity

THE NEXT SOA LIFE AND ANNUITY SYMPOSIUM will be held May 6 – 7 in Toronto, Canada, at the Sheraton Centre Toronto Hotel. Diverse session topics are expected to include:

- The latest life and product development industry studies,
- Canadian focused topics,
- new financial models,
- new regulatory developments, and
- topics of interest to international attendees.

The symposium is a two-day event that includes insightful and industryleading keynote speakers and a networking reception. For more information, visit *www.soa.org/las* or use the QR code.



Standard business process redesign should be the starting point. When doing so, insurance companies should take a global approach and understand that business process redesign that touches on operations, legal, finance and IT will provide that best solution. As well, once a deceased insured is identified, establishing processes and technology that bubble up the policies in a meaningful way to facilitate effective and proactive management should be considered. This should include supporting tools for workflow management and audit that lend themselves to detailed and summary level transparency without being cumbersome or intrusive to normal business operations. The process could be a very repetitive task; however, with the right technology in place, operations can focus on investigation and remediation, analytics, dashboarding and document management, thereby minimizing process costs and providing actionable and traceable information for management. Regardless of the motivating factors, legislative attention will continue in this area, and proactive measures to mitigate investigation and fines should be undertaken.

To look at the history, unclaimed property laws originated in Europe and have been in existence since feudal times. The basis is "escheat," the common law doctrine by which the property of a deceased without heirs is transferred to the crown or states. Interestingly, since the time of Henry III, the English monarchy took particular interest in escheat as a source of revenue. In modern times, unclaimed property laws in the United States began in the 1950s with the National Conference of Commissioners on Uniform State Laws (NCCUSL) approving the Uniform Disposition of Unclaimed Property Act in 1954. The act was amended in 1966 and completely revised in 1981 to become the Uniform Unclaimed Property Act (UUPA). A



final revision was made in 1995, and all 50 states, the District of Columbia, the Commonwealth of Puerto Rico, Guam and the U.S. Virgin Islands have unclaimed property laws based on the UUPA.

Insurance companies established their operational and financial procedures based on the UUPA and until recently this sufficed. In the last year, however, the activity by legislators indicates that insurance companies again need to revise their processes. Although exact rules for each state are still to be defined, it's important to look at the direction legislation is going to identify how to proactively redesign business processes and mitigate financial exposure.

In the last year, the National Association of Insurance Commissioners (NAIC) formed the Investigation of Life/Annuities Claims Settlement Practices Task Force. This task force is in the process of conducting examinations of the top 40 insurance companies, which represent 92 percent of the industry's market share. Already, there have been several multistate settlements with insurers have agreed in their settlements to revise practices and are based largely on the National Council of Insurance Legislators' (NCOIL's) new Model Unclaimed Life Insurance Benefits Act. Interestingly, none of the states leading the investigations have adopted NCOIL's model act, which includes California, North Dakota, New Hampshire, Pennsylvania, Illinois and Florida. However, the New York Attorney General's office has been involved in a parallel probe of the top insurers, and new legislation has passed there.

The Model Unclaimed Life Insurance Benefits Act was passed last November (2011) by NCOIL; however it is up to individual states to adopt and, if adopted, does not have to be in the exact form recommended by NCOIL. Currently, legislation has been adopted in Kentucky, Maryland, Alabama and, as mentioned, New York; however, it has failed insurance policy claim processing. In some cases, the DMF is used to stop annuity payments from continuing to go out the door to the policyholder, but it is not employed to stop premium collection for life insurance policy payments coming in. An insurance company should ensure consistent use of the DMF across all lines of business. As well, currently the dormancy period for escheat of benefits of life and annuity policies to the state does not commence until "due notification of death."

... proactive measures to mitigate investigation and fines should be undertaken.

in Tennessee. Although the act aims at revising insurance companies' processes significantly and more uniformly, there are concerns that the act does not clearly define new guidelines for handling unclaimed life With the onus on the beneficiary, the clock does not commence until the insurer receives a death claim. Hence, if a beneficiary does not know it is such, there is no reason for it to contact the insurance company. Therefore,

the largest insurance companies. Most notably, MetLife's settlement is estimated at \$700 million, while Prudential and John Hancock have settlements of \$17 million and \$10 million, respectively. As well, the and annuity policies.

At the heart of the issue are several things that the examinations and the act seek to address. The use of the Social Security Administration's Death Master File (DMF) is not consistently applied to annuity and life the policy can stay on the insurer's books indefinitely, or until the policy reaches a limiting age based on mortality tables. The legislation seeks to shift the burden to the insurance companies by

Life and Annuity Unclaimed Property



requiring insurance companies to conduct a monthly or quarterly sweep of the DMF. Rather than waiting for an investigation to commence or for states to pass the legislation, insurance companies should proactively conduct a monthly sweep of the DMF to identify deceased insureds. Best practices are not always employed post notification of death as well, and the new model act aims to remedy this. Once a deceased is identified, the insurance company should confirm the death of the insured, determine if benefits are due, document good faith efforts to locate the beneficiary, and provide claim forms to the beneficiary to make a claim. If unable to contact the beneficiary, policy proceeds would be escheated to the state within state regulations.

The catch, though, is that while the NAIC and NCOIL are insisting on proactive and more frequent use of the DMF, as of Nov. 1, 2011, the Social Security Administration will no longer disclose protected state records of deaths, which are records the Social Security Administration acquires from the states. Therefore, about 4.2 million records in the DMF will be removed from the public files and only made available to federal agencies. Furthermore, of the 2.8 million deaths annually reported to the DMF, only 1 million will be available to the public. This presents a challenge to those in the industry-increased regulatory attention and a less comprehensive DMF file. I'm currently unaware of any proposed government solutions, either. Following the proposed legislation and sweeping the DMF will suffice, despite the insufficiency of information. To employ best practices, however, evaluating toolset options that better identify deceased and unclaimed policies would be wise.

Historically an isolated back office operations issue, the issue of unclaimed property should be on the active radar screen of management as a financial risk to be managed. Business process redesign should be the starting point and include the use of technology to facilitate effective and proactive management. Supporting tools for workflow management and audit will allow for transparency without being cumbersome or intrusive to normal business operations. With the right technology in place, operations can focus on investigation and remediation, thereby minimizing process costs and providing actionable and traceable information for management. A proactive approach will not only avoid regulatory examinations and keep you in compliance, but will ensure you

are carrying out best practices for the benefit of your company and its policyholders.

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THERE ARE MANY DIFFERENT RETIREMENT SYSTEMS THROUGHOUT THE WORLD. THIS ARTICLE MAKES THE CASE THAT LOOKING AT HOW OTHER COUNTRIES HANDLE RETIREMENT PROGRAMS COULD HELP OUR OWN. BY ELIZABETH BAUER



OVERSEAS ETIREMENT SYSTEMS

e all know the story: the American retirement system is facing a crisis. The latest Social Security Trustees' Report tells us that the trust fund

will be depleted in 2033, and total Social Security outlays are projected to peak at 17.4 percent of taxable payroll in 2035, up from 11.3 percent now. While the optimists tell us we have plenty of time to make some minor tweaks to the system, in the meantime, the redemption of the Trust Fund bonds (if one even accepts that they are real, meaningful



assets) will only place a further strain on an economy weighed down by debt.

But that's not the half of it: the traditional employer-sponsored defined-benefit (DB) pension system, once near-universal among larger employers, is dying a slow death. As recently as 1995, based on my employer's internal survey data, a good 80 percent of larger employers provided open and ongoing DB plans to their employees; now that figure is only about 25 percent and falling fast. Since that shift is so recent, and grandfathered employees' benefits are protected (accrued benefits, by law, and continued accruals, often by practice), we are headed into uncharted territory, with multiple experts asserting that employees aren't saving enough, and other experts asserting the first group is too pessimistic, but with no lived experience to tell us what's going to happen to the living standards of the first DB-pension-less generation of seniors.

Despite all the hand-wringing, moves toward a solution have been baby steps. The last change to Social Security was in 1983, with increases to contribution rates and retirement ages. On the employer side, the Pension Protection Act of 2006 aimed to shore up pension funding of existing plans but did nothing to slow the abandonment of the DB pension plan, and may have exacerbated it; and it aimed to increase voluntary pension savings via expanded opportunity for employers to implement auto-enrollment. In the meantime, there's a certain amount of resignation that the only changes possible are small and incremental, and the only tools available are education and encouragement, and at best the removal of some minor regulatory hurdles.

But we're not alone. Other countries have faced the same issues, and have made dramatic changes. Still other countries have had entirely different systems from the start. Let's take a look

Changes to Social Security and Mandatory Employer Pensions

AUSTRALIA: Mandatory Superannuation employer contributions (phase-in from 1992 to 2000); additional changes currently underway; increase in contribution rate under discussion.

BRAZIL: Adjustment factor including improvements in life expectancy incorporated into formula (1999).

GERMANY: Increase normal retirement age to 67 (effective 2012, phase-in to 2031), slow growth in the Pension Value with demographic adjustment factor (2005).

HONG KONG: Institute Mandatory Provident Fund (2000).

ITALY: Move from pay x service to cash-balance-like notional accounts (1995), partial move from mandatory termination indemnities to mandatory DC contributions (2007), implementation of notional accounts for all workers going forward (i.e., eliminating pay x service x accrual rate benefits for future service for grandfathered group), plus increases in the retirement age and life-expectancy-based adjustments to annuity conversion factors (2012).

NETHERLANDS: Increase retirement age from 65 to 67 (effective 2012, phasein to 2025); increase benefits relative to minimum wage by 0.6 percent per year for 16 years (2012).

NORWAY: Move from pay x service to cash-balance-like notional accounts (2010); mandatory 2 percent DC plans (2006).

SOUTH KOREA: Shift from mandatory termination indemnity benefits to mandatory retirement plans (phase-in from 2005 to 2008).

UNITED KINGDOM: Changes to benefit formula to phase-in a flat benefit (ongoing to 2030, with implementation potentially moved up to 2020); mandatory autoenrollment in DC plans (phase-in from 2012 to 2016)—minimum employer contribution 3 percent, employee 4 percent, plus 1 percent tax rebate; opt-out permitted.

abroad for some new ideas and perspectives to freshen up the debate.

SOCIAL SECURITY: FLAT BENEFIT SYSTEMS?

The Netherlands, Denmark, Ireland and New Zealand are among the countries that use a

very simple, flat benefit system. In the case of Denmark, Ireland and New Zealand, the benefits are funded by general tax revenues, so the system is quite progressive. In the Netherlands, the benefits are funded by a payroll tax with a comparatively low ceiling (contributions of 17.9 percent on income up



to EUR 33,436 per year), a more regressive system. The Dutch benefits themselves are defined with reference to the minimum wage: for singles, the net after-tax Social Security benefit is set at 70 percent of the net minimum wage; and for married/cohabitating couples (defined very broadly to include two people sharing a household, in most circumstances), the net benefit is 50 percent of the net minimum wage, per person. For 2012, the actual annual benefit amounts are EUR 13,690 for singles/ EUR 19,095 for couples. (These benefits will change based on recent reforms, increasing both the retirement age, and the size of the benefit relative to minimum wage, but the general structure will remain the same.)

Australia and Hong Kong take this system a step further, and claw back retirement benefits based on income and asset tests. In Australia, the current rates are about \$18,000 for singles and \$27,000 for couples (conveniently, the Australian and American dollar are nearly equivalent). These benefits are locally perceived of as a very basic standard of living, but are markedly more generous than local unemployment benefits, which at \$13,000/\$23,000 are slightly below the Australian poverty line measure. These benefits phase out fairly rapidly, reducing by 50 cents for each \$1.00 of income above a minimal threshold.

In Hong Kong, the basic benefit amount is much smaller—HKD 1,099 per month, or approximately USD 133—but is accompanied, for those with no other financial resources, by additional supplements. This benefit is meanstested for individuals under age 70; for all recipients it is viewed as a very minimal "safetynet" benefit, with the large part of retirement income coming through mandatory retirement savings (more on this later).

These systems are not new, but that doesn't mean it's not a possible model. In fact, the

United Kingdom is moving toward a flat-benefit system, being phased in by 2030 (or potentially earlier, by 2020). Such a system offers simplicity, a true guarantee of protection against poverty, and, potentially, the flexibility of limiting benefit increases from year to year to respond to the current state of the economy.

MODIFIED ACCRUAL-RATE FORMULAS?

Most benefits, of course, are pay-related and accrue based on defined formulas, and most of these formulas are very straightforward: capped a pay-replacement target at average income levels, but the formula is complex and everchanging. In 2005, a "sustainability factor" was introduced by which the Pension Value is adjusted (at least in part) by the change in the number of retirees relative to the size of the workforce. The stated policy of the German government is, by adjusting the Pension Value, to contain the cost of the system and limit the total employer and employee contribution rate to no more than 22 percent of pay.

... we're not alone. Other countries have faced the same issues, and have made dramatic changes.

average pay multiplied by years of service multiplied by an accrual rate. Some countries provide a minimum benefit as protection against poverty, or provide a combination of a flat rate benefit and a pay-related portion (for example, Canadian and existing U.K. benefits). Other systems are designed, as with the American system, to provide a relatively higher benefit level at lower incomes: in the Czech Republic, for instance, pensionable pay above certain thresholds is only partially reflected in the calculation.

Some of these systems contain components that take into account changing demographics. For example, Germany uses a "points" system: one accumulates points each year based on one's own income compared to the national average income (e.g., one point for income at exactly the national average, 1.5 points for income 50 percent above average, etc., up to a maximum pensionable earnings/maximum points); at retirement, the monthly pension is determined by multiplying the total points by the "Pension Value" then in effect. By and large, the Pension Value increases in line with wage increases, in order to meet Brazil likewise has a traditional DB system, and a generous one at that—up to 100 percent of inflation-indexed average pay after a full working lifetime. Beginning in 1999, however, an adjustment factor, the "Fator Previdenciario," is to be applied to the benefit, a calculation that takes into account both age at retirement and life expectancy at that age, based on the most current official table.

Is this an alternative approach? Certainly these sorts of sustainability adjustments are the easiest method of automatically adjusting benefit size to take into account changing demographics, since, in principle, once implemented, no further political decisions are required to continue the adjustments from year to year.

ACCOUNT-BASED SYSTEMS?

The biggest recent shift in social security/state pension benefits has been the adoption of the World Bank multipillar model, especially in former Eastern Bloc states. This system typically takes the form of employer and employee contributions to a combination of a pay-as-you-go system, in which benefits accrue based on notional accounts credited with interest, and to separate individual funded accounts, with a guaranteed minimum benefit provided as a (small) percentage of the national average wage. I hesitate to spend too much time discussing these programs, since the unique circumstances of these countries at the time of the reform—the unsustainability of the old system's generous pensions and the need to increase the amount of investment capital—mean that it is difficult to assess the potential applicability of such a system in the United States. annuities at specified annuity factors, which are revised triennially. Each of these countries grandfathered existing participants to a greater or lesser degree at the time of implementation.

In addition to the simplicity of the cash-balancelike concept, these systems have multiple sustainability elements, from the interest credits varying along with the health of the economy to the changes in annuity factors to reflect current demographics, to explicit "sustainability" adjustments. Is this the model we're looking for?

The list of countries that have reformed their system in recent years is long. ...

But there are other countries outside the Warsaw Pact region that have adopted some form of individual accounts. Three countries-Norway, Sweden and Italy-have adopted cashbalance-like plans in recent years. Norway's pension reform is brand-new, dating to 2010, and consists of notional accounts built up with contributions of 18.1 percent of pay and interest credits based on increases in the national average wage. These accounts are converted to annuities based on predefined annuity factors that increase over time to reflect the increase in life expectancy. The annuity factors rise sharply-for example, for retirement at age 65, they increase from 16.65 for an individual born in 1954, to 20.26 for someone born in 1990, and are intentionally set to ensure the sustainability of the system. Sweden's system is older, dating to 1998, includes a pay-as-you-go portion of 16 percent and a funded portion of 2.5 percent, and incorporates demographic/ sustainability adjustments in the annual interest credit determination. In Italy's system, older still (established in 1995), the contribution levels are significantly higher, at 33 percent, and the notional accounts grow based on the annual growth in GDP, again converted to

EMPLOYER-PROVIDED BENEFITS

The list of countries that have reformed their system in recent years is long, with changes in accrual rates, income averaging methods, retirement ages, annuity conversions, contribution levels, and implementation of self-adjusting mechanisms, in order to cope with the future costs of the system, with an accompanying recognition that employers or individuals themselves will have to fill in the gap left by benefit decreases with additional benefit provision/personal savings. In some cases, these private systems are not yet well-developed. In other cases, there are already well-developed complementary systems via national or widely prevalent collective bargaining agreements, in which employers either contribute a fixed percentage of pay or are required to provide benefits at a defined level-but the reliance on collective bargaining limits their usefulness as potential models for the United States. Some countries, however, have implemented mandatory employerprovided retirement programs that offer a potential solution to the shortfalls of our present voluntary system.

MANDATORY RETIREMENT SAVINGS?

Two examples of mandatory retirement savings are Hong Kong's Mandatory Provident Fund (MPF) and Australia's Superannuation Guarantee.

Hong Kong's system, established in 2000, requires a 5 percent employer and 5 percent employee contribution to a Provident Fund; in practice, the majority of employers provide a higher benefit level, contributing, for example, 7 percent of pay rather than 5 percent. Historically, employees have chosen from among a range of funds offered by an MPF provider selected by their employer; new legislation (effective in 2012) allows participants to select their own MPF provider.

Australia's system, with employeradministered funds, more nearly resembles what our 401(k) system would look like if a mandate were added. Their system is relatively new-or rather, the mandate, instituted in 1992, made universal a benefit previously available to about half the workforce through collective bargaining and voluntary employer plans. The contribution level began at 3 percent (4 percent for large employers) in 1992, with a gradual phase-in to the existing 9 percent contribution level in 2000; an increase to 12 percent by 2017 is currently being legislated.

This system is not without problems, however. One of the current concerns is the high level of expenses, especially commission, for smaller plans, and the ability of participants with low financial literacy to manage their Super accounts effectively. A "default" product ("MySuper") as well as a review of the financial advice industry are currently being implemented in response to these concerns.

In any case, as in the United States, there is no established system to ensure that retirement

income lasts throughout retirement. As with a U.S. 401(k) account, annuity purchases are quite rare. At present, due to the newness of the Superannuation system, a great many participants use their Super balances to pay down debt or make major purchases at retirement, and rely on the Age Pension for their basic needs. Others manage their retirement savings in ways similar to the United States, with financial advisors or general "rules of thumb" to guide them. In addition, the reliance on individual investment returns does not protect against investment risk, either before or after retirement, and there is no protection against longevity risk.

ACCOUNTS WITH GUARANTEES?

In these respects, Switzerland may be a better model for a universal employer-based pension system. Their system, established in 1985 and called the Federal Law on Occupational Retirement, Survivors' and Disability Pension Plans (BVG/LPP), consists of mandatory occupational pension benefits, as well as death and disability insurance. The minimum benefit levels take the form of a cash balance plan, with annual retirement contributions based on a schedule by age, from 7 percent to 18 percent, out of which employers by law may pass as much as 1/2 the cost to their employees. The minimum interest credit is fixed by law, currently 1.5 percent, and annuity conversion

rates are also specified. Pensionable pay, or "coordinated salary," is defined with recognition of the fact that the Swiss social security system has a significant minimum benefit level. Benefits begin on pay above a threshold called the "Coordination Deduction"-currently CHF 24,360-which is tied to social security benefit levels, and are not required on pay above the social security ceiling, CHF 83,520. (Again, conveniently, the U.S. dollar and Swiss Franc are about equivalent.) These benefits are minimums only; employers are able to, and quite commonly do provide benefits significantly above these minimum levels. The benefits must be funded by law, and small employers typically fund them via insurance providers. At retirement, lump sum benefits are permitted, but most participants elect annuity benefits. The benefits are fully portable, and, upon termination, employees transfer their accrued benefits to their new employer.

It's a stretch to imagine the Swiss system adopted in the United States, but it would solve retirement security problems while keeping the system firmly rooted in the private sector. The Swiss system's guaranteed interest credits and insurer-based annuitization protect against investment and longevity risk for individual employees, although a typical American would recoil against the high cost implicit in the low interest credits/investment



EACH YEAR'S earnings up to that year's wage base are indexed to reflect wage growth, and the highest 35 years are averaged. Then, the following formula is applied:

- 90 percent x first \$767 of indexed earnings, plus
- 32 percent x remaining indexed earnings up to \$4,624, plus
- 15 percent of remaining indexed earnings up to the ceiling.

returns. It's also hard to say whether the notion of the "coordinated salary" would be viewed as "fair" (no employee contributions) or "unfair" (no employer contributions, either) to lower-wage workers, and whether an age-based schedule would be considered entirely appropriate or discriminatory.

CONCLUSION

Flat benefits, self-adjusting mechanisms, notional accounts, mandatory retirement savings or cash balance provision: the discussion above is just a bare summary. Much could be written on the sustainability of these systems, and whether any of these systems would be appropriate for the United States (I have my favorites), and I've skipped almost entirely the issues of local preferences for lump sum versus life payments, funding versus pay-as-you-go, and annuities/ guaranteed investments versus equities, all of which offer instructive comparisons (though I need to do more thinking and learning before I'm ready to do the "instructing" myself). If I look hard enough, I can find research addressing these topics on the websites of prominent think tanks-but not in the broader public discourse.

Perhaps this is a solution in search of a problem. It may be that we indeed have the best possible retirement system, and a change would do more harm than good; or that the limitations of our political system truly do make it impossible to envision a change. Even so, I'd like to think that a look abroad can at least be a conversationstarter and a way forward in the stalled political discussion on Social Security and retirement income in the United States.

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Education

GLOBAL CERA CREDENTIAL CELEBRATES THREE-YEAR ANNIVERSARY

BY FRANCIS P. SABATINI

THE CERA GLOBAL ASSOCIATION (**CGA**) is about to celebrate its third year managing the process of awarding CGA member organizations with the right to offer a global risk management designation. There are now well more than 1,000 CERAs globally, and the nine actuarial organizations noted below are authorized to award the CERA credential.

- Society of Actuaries
- Casualty Actuarial Society
- The Institute & Faculty of Actuaries (United Kingdom)
- Institute of Actuaries of Australia
- Actuarial Society of South Africa
- Het Actuarieel Genootschap
 (HAG)—Netherlands
- Canadian Institute of Actuaries
- Institut des Actuaires—France
- Deutsche Aktuarvereinigung e.V.— Germany

Both the Institute of Actuaries of Japan and Svenska Aktuarieföreningen (Sweden) have applied to become award signatories. An award signatory is an association that has been granted the right by the CERA Global Association to award the CERA credential. Should they be approved, all but two of the original treaty members will be award signatories. The Actuarial Institute of Chinese Taipei has recently become a treaty member, and the Association Suisse des Actuaires (Switzerland) and the Society of Actuaries in Ireland have expressed interest in becoming members.

The concepts underlying the global CERA treaty, championed by Michael McLaughlin of the SOA, have blossomed into a worldwide credential that is gaining recognition globally. In discussing the CGA's three-year experience, Mike noted, "The SOA played a huge pioneering role by developing the CERA credential and in helping bring the global credential to reality. I am delighted to see the success of this important global credential."

Fred Rowley of the Institute of Actuaries of Australia is the current CGA Board chairman and the individual that championed the development of a global credential. His hard work, determination and persistence launched this important global credential. Finding a way to get these worldwide associations to join together is a major accomplishment. Today they work together as if they have been doing it for years.

Two separate events will trigger treaty provisions that have important effects on global CERA governance. With the next granting of award signatory status, there will be 10 such associations. This triggers a reconstitution of the Review Panel. The Review Panel is charged with the initial and ongoing review of each award signatory's CERA education and candidate assessment system in accordance with the provisions of the treaty. The treaty's three-year anniversary will trigger a reconstitution of the global CERA Board as well.

Current board membership consists of representatives from each of the original treaty signatories. Upon the three-year anniversary (Nov. 13, 2012), the board will be reconstituted to include award signatories only. At this juncture almost all of the original treaty signers have become award signatories and will be represented on the new board. The exceptions are likely to be Colegio Nacional de Actuarios A. C. (Mexico) and the Israel Association of Actuaries. As new award signatories are approved, their representatives will be added to the board.

Currently, the number of FQAs (fully qualified actuaries under the International Actuarial Association definition) who are members of each award signatory is the key determinant for voting on board matters. Once there are 10 award signatories, board voting will be based on the number of

CERAs registered to each award signatory. This change in protocol should occur within six months of the 10th award signatory status being granted. The global CERA is funded through fees paid by the member associations. Fees are assessed on the same basis used to determine board voting. As the board voting basis changes so will the basis for assessing fees.

Another operational change that comes with the three-year anniversary is the appointment of a new Global CERA Board chair. Fred Rowley has capably led the Global Association through the initial stages. The board will be shortly electing a new chair from the existing board members. Continuity will be maintained in that way.

The interim review panel will be disbanded and a permanent review panel will be formed as a result of reaching 10 award signatories. The permanent review panel will consist of representatives from each award signatory. The permanent review panel chair will be selected from the review panel members. The interim review panel has prepared a review of its operations to date and has made recommendations to streamline the process of future reviews. Overall, the interim review

panel believes the review process has been consistent with the objective of ensuring overall quality of the credential. Steve Eadie has been the SOA representative on the interim review panel. The review panel will focus more on annual reviews of the existing award signatory's CERA education systems in the future since the expectation is that there will be fewer new applications for award signatory status. An in-depth review is conducted once every three years of each award signatory's education system, but annual reviews are conducted with a focus on any changes to the CERA educational system made by an award signatory over the previous year.

At least once every three years from the date of the initial signing of the treaty, the enterprise risk management (ERM) syllabus and ERM educational standards must be reviewed under the terms of the treaty. This is to ensure that the syllabus and standards represent best contemporary practice in both ERM application and ERM education. Each award signatory will have 18 months to bring its CERA educational systems in line with the revised ERM syllabus and ERM educational standards should changes be made. Award signatories are

required to cover at least 80 percent of the ERM syllabus. In practice, this minimum has been exceeded by all award signatories. The cognitive levels required in the assessment of CERA candidate achievement are more than acceptable.

The global CERA treaty provisions have affected the SOA's CERA education system. For example, the SOA's recent introduction of a four-hour ERM exam and modifications of the Fundamentals of Actuarial Practice course and the ERM module were initiated, in part, by the global CERA ERM syllabus requirements.

In reality the changes described in this article are likely to be "no big deal." Operationally, most of the same associations and their representatives will continue to be involved in the governance of the global CERA credential. The focus will be to continue to expand the CERA credential and to create a greater awareness for the credential. The board has formed a Branding and Marketing Committee to explore ways to promote the credential. Of all the changes, the syllabus review could have the most immediate effect. We have three years of review panel experience and extension of ERM practice to be reflected in the new ERM syllabus.

Expanding Intellectually

I WANTED TO go back for the CERA out of intellectual curiosity—expanding my horizons beyond traditional actuarial thinking. While the designation has not had a direct impact on my career, my exposure to the risk management curriculum has influenced me in several ways. On the positive side, I am more conscious of looking at the entire risk profile of a business decision, including areas such as counterparty and liquidity risk that are not traditionally a focus of actuaries. Curriculum material on financial innovations, and how they are promoted and analyzed, also taught me that one must take a critical view of any "solution" to risk management concerns.

- Harold E. Luber, FSA, CERA, MAAA

It's amazing how the concept of a risk management credential has evolved over a relatively short period of time into a globally recognized credential.

Please visit *www.ceraglobal.org* to learn more.

Francis P. Sabatini, FSA, CERA, MAAA, is president of Sabatini Advisory Services, LLC. He can be contacted at *francis.sabatini@gmail.com*.

Section Highlights

INVESTMENT SECTION

BY CHAD HUEFFMEIER

Most investment professionals would describe the past few years as the most challenging of their careers. The challenges have been even greater for investment actuaries who have been responsible for asset-liability management (ALM). However, the challenges faced by investment actuaries vary greatly across industries.

The concept of ALM is the same for both insurers and pension sponsors but the motivations driving their strategies tend to be quite different. Pension investments are generally not tied to risk-based capital requirements. Furthermore, liberal accounting standards and funding requirements have somewhat protected pension sponsors from the asset-liability mismatch risks in their plans. Consequently, while insurance ALM is largely focused on risk-hedging, pension ALM is largely focused on risktaking. For example, 100 basis points of tracking error between assets and liabilities may be typical for insurers while 1,000 basis points of tracking error have been typical for pensions.

Over the past decade, the combination of funding practices and investment performance has left most pension plans poorly funded. At the same time, accounting standards have changed and exposed much of the economic risk of pension plans. Consequently, many corporate pension sponsors have started to change their mindset and to develop strategies that will transition their pension investments to have lower asset-liability mismatches over time.

On the other hand, public pension sponsors have been focused on developing strategies they hope will help their assets grow in line with the expected returns (e.g., 8 percent) that are built into their liability measurements. Although more extreme, this challenge is similar to when options embedded in insurance products cannot be fully hedged without causing the product to be unprofitable. Consequently, it is more important than ever for product development/pricing actuaries and investment actuaries to work closely together.

In March, the "Long-Term Financial Planning Summit" was held in New York. There were 31 attendees who represented members from each of the sponsoring sections: Investment, Pension, Social Insurance & Public Finance, Long Term Care Insurance, and Forecasting and Futurism. Although there was not a consensus about the solution, there seemed to be wide acceptance that our profession may need to consider some fairly dramatic changes to avoid public scrutiny and to remain relevant. The Investment Section Council is developing two sessions for the 2012 Annual Meeting and a webcast to share perspectives with and to solicit feedback from a broader audience.

In addition, the council has been hard at work ensuring our members receive value through various forums. The 2012 Investment Symposium had its largest attendance and great reviews across the board, especially for the new pension track. The ALM Investment Seminars in Shanghai and Taipei were also very successful. The Council is working with presenters from each of these events to develop a few webcasts and a series of podcasts because section members have expressed the desire for more remote forums.

Chad Hueffmeier, FSA, EA, FCA, MAAA, is chairperson of the Investment Section. He can be contacted at *Chad.Hueffmeier@buckconsultants.com*.

THE MARKETING AND DISTRIBUTION SECTION

BY DOUGLAS BENNETT

The Marketing and Distribution (MaD) Section is undertaking a comprehensive and unique look at the middle-income market for insurance. There is much research documenting the declining ownership of life insurance in this market as well as the ongoing shrinkage in the number of agents. Yet there is additional research that suggests households in this market understand the need for life insurance and have a desire to purchase it. In fact many that already own life insurance think they need more. Further, the research has found consumers are confused about life insurance. They do not understand the differences between products nor do they know how to determine how much they need. They want advice-just not from traditional life insurance agents.

To develop the in-depth understanding of the market that is needed to successfully link

appropriate products and desired distribution channels with the needs of each of the various market sub-segments, MaD has initiated a staged research program. By focusing on specific sub-segments (the first one being households with young children), we will avoid generating the general solutions, such as "hire more agents," resulting from prior industry research. Staging the research lets us continually improve the research by constantly building on prior results while staying focused on the most valuable segments of the middle-income market.

As of the end of July, the survey questionnaire for the households with children segment was developed. The survey will soon be administered with initial results expected in time for the SOA annual meeting.

The longer-term nature of this research effort creates an ideal opportunity for MaD section members to become involved. We anticipate there will always be a stage about to get started or results about to be released while ongoing work will be developing and refining the overall direction of the effort. Don't hesitate to join MaD, if you are not already a member, to take priority advantage of our research findings.

Douglas Bennett, FSA, is a consulting actuary with Ideation Insurance Services and chairperson of the Marketing and Distribution Section. He can be contacted at *dbennett@ideationis.com*.

SMALLER INSURANCE COMPANY SECTION

BY JERRY ENOCH

The United States has experienced a low interest rate environment for several years, which affects virtually every aspect of our society. The council of the Smaller Insurance Company Section (SmallCo) decided that this issue is one of the most significant challenges to our members in many years. Its effects include the profitability of existing policies, the pricing of new policies, the adequacy of the reserves we hold, and the minimum reserves we hold on future issues. Our section's mission is to disseminate information to help actuaries at smaller insurance companies (and any others) keep current as we work with minimal resources. Consequently, the council of SmallCo created a Low Interest Rate Environment Team of council members and friends (including a non-actuary) to help our members address this issue.

The team gathered information, particularly about interest rate history, and sent blast emails to section members when important material was identified. Their research led them to conclude that the level interest rate scenario used in cash flow testing might be considered to be worse than moderately adverse, and provided support for such a position in a year-end webcast made in partnership with the Financial Reporting Section. They have disseminated information in every medium available: webcasts, blast emails, newsletter articles, and sessions at meetings. They have even addressed actuarial clubs.

The Low Interest Rate Environment Team has exemplified the concept of a grass roots group of actuaries working together to meet their needs. Now, if they could only figure out a way to make the interest rates increase gradually. ...

Jerry Enoch, FSA, MAAA, is vice president and chief actuary with Alfa Life Insurance Company and the chairperson of the Smaller Insurance Company Section. He can be contacted at *jenoch@alfains.com*.

SOA DUES RENEWAL



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TO CONTINUE RECEIVING VALUABLE BENEFITS!

Out Of The Office

ACTUARIES ON THEIR OWN TIME

MAN OF MANY ROLES

RAY MARTIN started performing in the theater when the director of a play his children were performing in told him that a nearby summer outdoor theater offered opportunities to all ages. "I auditioned in 2000 and was cast as Mr. Sowerberry in *Oliver!*" Martin says.

Thirteen years later, he has performed with more than six different local theater groups, participating in more than 25 productions. Martin states he has "done the same production in different roles a few times. One of my favorite roles was Jud Fry in *Oklahoma*! Because of my love for singing, any role with a solo is on the top of my list."

When asked what is the toughest part of being on stage, Martin says, "Getting the lines right. Often you go on stage and your head goes blank. I must always be thinking of my next scene and my dialogue or song."



Ray Martin in one of his many roles.

What does he like best about performing in the theater? "First, being able to sing great music, then the camaraderie, the strange unexpected things that happen in rehearsals and performances, lastly taking that final bow knowing you did your best."

Martin sees an actuarial tie-in to performing in the theater. "For me it is the discipline that is needed for both along with keeping one's mind active and innovative."

F. Ray Martin, FSA, MAAA, is a consultant with MarACon, LLC. He can be contacted at *Ray.Martin@ MarAConLLC.com*.

A DISCERNING EYE

After attending the world ice skating competition in 2007, **JENNIFER GILLESPIE** was encouraged by several friends and coaches at her local ice skating rink to take up judging figure skating competitions. For the past five years, she's been watching spins, jumps and steps with a discerning eye.

Gillespie says she judges "about one competition per month. Summer is actually the busiest time. I have judged people who have skated at Nationals, but not anybody whose name would be recognized ... yet!"

What does she like best about being a figure skating competition judge? "I like to watch skating at all levels of skill. It is fun to watch



Jennifer Gillespie (center) judging a skater.

somebody have a personal best—no matter what level they're at. I like learning the intricacies of a sport I enjoy," states Gillespie.

When asked if she ever figure skated competitively, Gillespie says, "I've always been a big fan of figure skating and I grew up pond skating in Minnesota, but I didn't really start taking lessons until I was about 30. I have skated in a few competitions, but as I always remind people—I skate because I love it, not because I'm good at it!"

For Gillespie the actuarial tie-in to judging figure skating competitions is that "actuaries have to make decisions with the information available—whether or not it's enough for a clear answer. That's the same thing in judging—you use all the information a skater just presented to you in their performance and you make the best decision you can."

Jennifer L. Gillespie, FSA, MAAA, is vice president & actuary, Underwriting with Blue Cross/Blue Shield of MN. She can be contacted at *jennifer_gillespie@* bluecrossmn.com.

THE MIGHTY PEN

J.D. DAVIS is the author of a book titled *Unconquered*, a biography of cousins Jerry Lee Lewis, Jimmy Swaggart and Mickey Gilley, born within a 12-month span in small-town Louisiana during the Great Depression. The book draws from exhaustive research and personal connections with friends and family.

When asked what inspired him to write the book, Davis says, "After reading extensively about these men, visiting their hometown, and getting to know their family members, I realized there was a fascinating story to be told. My interest in undertaking the daunting task of writing a biography that would require weaving together the lives of three men developed from my interest in the men themselves. While much had been written about them-particularly about Jerry Lee Lewis-I found, to my surprise, no one had ever integrated their three lives together. The way their stories interlock really is the compelling story, in my opinion, and I feel privileged to have been able to tell it."

"The research, writing and publishing of this book took roughly three years. I spent roughly 5,000 hours on it, the most significant of which was the research phase," Davis says when asked how many hours of research he did for the book and what that research entailed. "Research efforts took me around the country-from places as diverse as New York City and Ferriday, La.-and included Memphis, Baton Rouge, Houston, Branson, Nashville, and the list goes on. I have met and spoken to hundreds of people. The fascinating group of friends and familyincluding some notable personalities of music and 20th century culture—provided a mountain of information from which to craft the story found in *Unconquered*."

"As a first-time author, I learned an enormous amount writing this book. Perhaps most importantly, I learned about the rigorous process of writing a book from start to finish. It is an extensive process, to say the least, and being thorough and organized during each step of the process is crucial," Davis says when asked if he learned anything from writing the book and, if so, what.

A project the size of writing a book does not come without difficulties. "The biggest challenge in writing *Unconquered* was creating a book that would be appealing, yet credible, to vastly different audiences. In writing about Jerry Lee Lewis, Jimmy Swaggart and Mickey Gilley, I wanted to write a book that appealed to the rock 'n' roll, country and gospel music audiences; to secular and religious audiences; and to academic and non-academic audiences. It required striking a careful and unusual balance," Davis says.

Does he have plans for other future books? Davis states, "I picked up this topic because it was one I found interesting and felt was compelling to a potentially broad audience. Future book efforts would depend largely on the ability to continue finding topics upon which I am interested and about which I think I am qualified (maybe even uniquely qualified) to write."

Davis describes the actuarial tie-in to authoring a book this way: "While the creative process of writing a book calls upon a vastly different skill set than that



J.D. Davis is the author of Unconquered.



often utilized by an actuary, I found the analytical and organizational skills developed in my professional career a great help during the research and organization phase, which many consider the most difficult as well as crucial to the process of authoring a work.

J.D. Davis, FSA, EA, MAAA, is a principal and consulting actuary with Milliman, Inc. He can be contacted at *jim.davis@milliman.com*.

The SOA At Work

THE SOA'S ANNUAL MEETING

SOA



SOCIETY OF ACTUARIES Annual Meeting & Exhibit

ANNUAL MEETING, being held in Washington, D.C. metro area, is poised to be among one of the best annual meetings yet. The general session keynote speaker is Matthew Syed, a past British Olympian in table tennis and an internationally known author. Syed graduated

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from Oxford University in 1995 with a prize-winning first class degree in philosophy, politics and economics. Syed's first book, *Bounce*, has been described as "one of the most intelligent and thought-provoking books about sport ever written." He will be sharing his thoughts on the science of success.

Susan Cain, the author of *The New York Times* best-seller, *Quiet: The Power of Introverts in a World That Can't Stop Talking*, is the presidential luncheon keynote speaker. Cain, a self-described introvert, will share her story of success as an introvert and introduce us to other successful introverts—from a witty, high-octane public speaker who recharges in solitude after his talks, to a record-breaking salesman who quietly taps into the power of questions. She offers invaluable advice on everything from how to better negotiate differences in introvert-extrovert relationships to when it makes sense to be a "pretend extrovert."

This year's annual meeting will once again be offering a meeting application to be used on your mobile device. The app will enable you to access session, speaker and presentation information, and much more. With more than 100 sessions and 18.30 continuing professional development credits available, you do not want to miss the 2012 Annual Meeting.

The SOA would like to thank outgoing President Brad Smith for all his dedication and hard work and welcome incoming President Tonya B. Manning. We look forward to a year of accomplishments under the leadership Tonya will provide.

The SOA also thanks all of the volunteers whose time and effort has made the SOA what it is today. We truly appreciate all of your hard work!

- SOA Executive Director Greg Heidrich

THE ACTUARIAL PROFESSION IN THE NEWS

The SOA is focused on raising awareness of actuaries in the media. Recent efforts have been successful. Here are just a few examples:

Test-Drive Retirement Before Taking It On The Road

Actuary Carol Bogosian discusses considerations before one retires. To read the story, visit www.usatoday.com, search term Carol Bogosian, or use the OR code.



Boomers Need Health Care Costs Reality Check

Anna Rappaport talks to FOX about how boomers can best prepare for increased health care costs in retirement. To read more, visit www.foxbusiness. com, search term Anna Rappaport, or use the QR code.



Are Your Social Security Taxes A **Good Investment?**

U.S. News & World Report talked to actuaries about getting your money's worth from paying Social Security taxes. For the whole story,

visit www.cbsnews.com, search term, Social Security taxes a good investment, or use the QR code.





Expert Steve Schoonveld discusses ideas for improving long-term care insurance. To read more, visit www.life*healthpro.com*, search term Steve Schoonveld, or use the QR code.



Investing In Longer Living Americans

MarketWatch mentions SOA statistics on longer life expectancies. To read the article,

visit www.marketwatch.com, search term Thomas Meyer & Timothy J. McGeeney, or use the OR code.



Pension Funding Proposal Could Lower Contributions Initially, Increase Over Time: SOA

Joe Silvestri discusses the recent rapid retirement research report. For the whole

article, visit www.advisorone. com, search term Joe Silvestri, or use the QR code.



View all of these articles by going to www.soa.org/newsroom and clicking on the Profession In The News link.

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PROFESSIONAL DEVELOPMENT **OPPORTUNITIES**

ANNUAL MEETING & EXHIBIT Oct. 14 – 17, 2012 Washington, D.C.

ASSET LIABILITY MANAGEMENT TECHNIQUES AND PRACTICES Oct. 22 – 24, 2012 Chicago, Ill.

ASSET LIABILITY SEMINAR

Oct. 25 – 26, 2012 Chicago, Ill.

SOA ANNUAL SYMPOSIUM SHANGHAI SOA

Nov. 5 – 6, 2012 Shanghai, China

EQUITY-BASED INSURANCE **GUARANTEES CONFERENCE** Nov. 12 – 13, 2012 Chicago, III.

2013

REFOCUS 2013: SEE THE FUTURE FIRST March 3 – 6, 2013 Las Vegas, Nev.

THE LIFE INSURANCE CONFERENCE April 15 - 17, 2013 New Orleans, La.

THE RETIREMENT INDUSTRY CONFERENCE April 17 – 19, 2013 New Orleans, La.

ENTERPRISE RISK MANAGEMENT **SYMPOSIUM** April 22 – 24, 2013 Chicago, Ill.

View all Professional Development opportunities by visiting www.soa.org and clicking on Event Calendar.



Recommended Readings

The following is a list of recommended readings from the contributing editors that they feel will pique your interest and help keep you informed.

From Ruth Ann Woodley

"What's Your Life Worth," from the New York Times Magazine

For many actuaries this story about viatical settlements will not be news. But it is an interesting look at the perspective those outside the industry have on these transactions. And it has some conclusions from underwriters on how people whose personality type makes them "the successful nerds of the world" tend to live longest. I suspect I won't be the only actuary seeing myself in their description and cheering! For the whole story, visit www.nytimes.com, search term James Vlahos, or use the QR code.



From Dave Ingram

Report to G20 Leaders on Basel III implementation

The Basel Committee on Banking Supervision has established a comprehensive implementation review process to ensure its globally agreed standards are implemented fully by member jurisdictions. A key element of the process is transparency, including reporting to the G20 leaders. As such, the report of interim findings (www. bis.org/publ/bcbs220.pdf) to the G20 Leaders Summit in Los Cabos marks an important step forward in the committee's work on

implementation. For more information, visit www.bis. org, search term G20 Leaders On Basel III, or use the OR code.



From Dave Ingram

Global Systematically Important Insurers: Proposed Assessment Methodology

The International Association of Insurance Supervisors (IAIS) is participating in a global initiative, under the purview of the Financial Stability Board (FSB) and the G20, to identify potential global systemically important insurers (G-SIIs). As part of this initiative, the IAIS has developed a proposed assessment methodology to identify any insurers whose distress or disorderly failure, because of their size, complexity and interconnectedness, would cause significant disruption to the global financial

system and economic activity. For more information, visit http://www.iaisweb.org/Consultations-918, or use the QR code.



E-COURSES

Enterprise Risk Management

This e-course is designed to provide information to actuaries who do not yet regularly practice in enterprise risk management (ERM), but want to know more about it to help expand existing skills or meet professional development requirements.

Financial Reporting

The e-course is designed to introduce you to the basic concepts and terminology necessary to understand financial statements and regulatory capital requirements. While applications and examples are taken from the insurance industry, much of the content is not industry-specific. In addition, while the focus is on Canada and the United States, an important part of the environment in these jurisdictions is the effort to align with international standards.

Investment Strategy

The e-course is designed to provide you with an understanding of the investment theories used to implement the investment process. Throughout this e-course, you will be exposed to case studies from real experiences that illustrate the range of considerations in managing investment portfolios supporting particular liabilities and goals. After completing this module, you should be able to define, design, monitor and modify an overall investment strategy given a client's objectives and constraints. You should also be able to communicate results to the client.

Operational Risk

This e-course is intended to help you learn how to identify, measure and manage operational risk.

For more information on these and more e-courses, visit www.soa.org and click on e-courses under the Professional Development tab.

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Actuary



Bridging the Gap Series: Economic Scenario Generators

Nov. 11 Chicago, IL

Get an overview of topics to be covered in the Equity-Based Insurance Guarantees Conference, and dive deeper into economic scenario generators (ESGs). Learn how ESG models are applied in practice for various objectives (e.g., hedging, pricing and reserving—among others).

Equity-Based Insurance Guarantees Conference

Nov. 12–13 Chicago, IL

This seminar is designed to give professionals with limited-to-moderate experience an understanding of how to better quantify, monitor and manage the risks underlying the VA and EIA products.

Learn more at **SOA.org**