SOCIETY OF ACTUARIES International Section

# International News

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International
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# Editor's Note

*By Carl Hansen*

This issue features several entries from the International Section's recent Country Feature Competition, including the second place article on Indonesia by Mitchell Wiener. The winning article ("The Netherlands: Going Strong after the Financial Crisis," by Sunil Sen) appeared in the August 2010 issue. The section will be running the competition again in 2011, so I encourage all readers to start working on their entries!

The section membership recently elected three new council Members: Theo Iaponas, Benjamin Marshall, and Lina Xu. We give you a brief introduction to the three of them on page 5 of this issue. Also, the new council officers for this year are Alan Cooke as chairperson, Michael Lockerman and Genghui Wu as co-vice chairpersons, Ben Marshall as treasurer, and Theo Iaponas as secretary. Congratulations to the new council members and officers. Also, thank you to Darryl Wagner, Rich de Haan, and Joe Chou, who have just completed their terms on the council.

You may notice that this issue of *International News* is thinner than some recent issues. This is an attempt to control your section costs. Printing and mailing the newsletter is the largest single expense for the section, and we want to ensure that section members continue to receive good value for their section dues. However, we will continue to include excellent and diverse (both by geography and practice area) material in the newsletter to keep readers abreast of developments around the world. Going forward, we are experimenting with the idea of posting longer articles directly on the SOA website and including only a summary (and link to the full article) in the newsletter. This approach also allows authors to write longer articles than we would normally publish. For example, please visit the International Section Web page on soa.org to access an article on embedded value financial assumptions in various countries prepared by the SOA's International Experience Study Working Group.

As always, please feel free to pass on any comments, articles, or ideas for newsletter content. ☐

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# Chairperson's Corner

*By Darryl Wagner*

How quickly the year passes! By the time you read this, your new Section Council will be in place. I have thoroughly appreciated and enjoyed the opportunity to serve as your chair this year. I want to take this opportunity to thank the 2009-2010 Section Council for their hard work and numerous contributions during the year. In particular, I'd like to thank my fellow "retiring" council members Rich De Haan and Joe Chou for three years of dedicated service. In addition, I'd like to acknowledge our incoming council members Ben Marshall, Theo Iaponas and Lina Xu. The section is clearly in good hands going forward! I'd also like to recognize the members of our newsletter team, led by Carl Hansen, for their ongoing efforts to produce a high-quality newsletter. Thanks also go to our SOA staff partners, Martha Sikaras and Jill Leprich, for their continuing support. The section also greatly benefits from the efforts of former council members and friends of council, Bill Horbatt and Cathy Lyn, who have led important initiatives for us this year. Last but not least, I want to thank you, our members, for your support, participation and feedback.

In this, my last article as chair, I'd like to update you on three topics that I believe are relevant and important to our section members.

First, I'd like to briefly report on the seminars we recently held in Asia. We had another successful financial reporting seminar in Hong Kong in late August/early September. This was my third opportunity to present at this seminar, and I continue to be impressed by both the quality and preparation of the speakers, as well as the interest and participation of the audience. We received some good feedback from the attendees on topics and formats for future seminars and are already working on incorporating that feedback into next year's plans. Thanks to all involved for making this a success! Preceding and following the seminar, we held 1 day seminars in Vietnam, the Philippines and Taiwan. I had the privilege to present in Taiwan and was thrilled to see the room filled with more than 200 participants! Thanks to Alice Chen and her organizing team, supported by Pat Kum, for putting together a great session, and for reminding me that connecting with our members where they live on topics of interest and importance to them is what it's all about!

Second, the International Membership Strategy Task Force that I mentioned in my last Chairperson's Corner has been working hard and will be delivering a presentation to the SOA Board at the Annual Meeting in New York. We have been focusing on drafting an articulation of the SOA's international strategic priorities. Thus far, we have grouped these priorities into three broad categories: service, growth and knowledge sharing. Work on this important initiative will continue into 2011, as we seek to build consensus around our strategic priorities and develop tactics to support and carry out those priorities. We will be launching a member survey to help us gather your feedback regarding the SOA's international strategy, and I look forward to hearing your input. I believe the International Section will play a key role in implementing the SOA's international strategic vision, building on the significant international initiatives already underway, both inside and outside the section.

Third, as I write this article, I am attending the Fall 2010 International Actuarial Association (IAA) meeting in Vienna. As an SOA delegate to the IAA, I participated in meetings of the Supranational Relations Subcommittee and the Advice & Assistance Committee. The Supranational Relations Subcommittee works to develop and strengthen the IAA's relationships with other supranational organizations, such as development banks. The Advice & Assistance Committee coordinates the provision of outreach and assistance to developing actuarial associations in countries and regions around the world, working in conjunction with other IAA groups, such as the Actuaries Without Borders section. It is truly impressive to witness the passion and dedication of our global actuarial colleagues in their efforts to improve the actuarial profession. Topics of meetings and conversations encompass a wide range of issues, including accounting for insurance and pension contracts, professionalism, regulatory and solvency frameworks, risk management, and education, in addition to the topics described above. Again, I see working with and through the IAA as being a vital component of the SOA's international strategy, particularly in the areas of growth and knowledge sharing.

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Returning to my theme of connections, I believe our strategy project offers us the opportunity to "connect the dots" around the great international work the SOA is already doing, and will provide the framework and support for even greater international endeavors. I also feel strongly that this is important not only to SOA members who reside outside North America, but to all SOA members who benefit from the growth and enhanced value of the SOA credentials that will surely result from the SOA's stronger positioning internationally. While my time on the International Section Council draws to a close, I am honored to be taking a seat on the SOA Board of Directors and am committed to staying closely involved with the SOA's international strategy and broader international agenda. And that includes the International Section! Let's stay connected! □

# Newly Elected International Section Council Members

**THEO IAPONAS,** FSA, CERA, MBA, Deputy VP, Swiss Life, Zurich, Switzerland

**Professional Background:** I am currently working on pricing of specialized transactions (retrocession portfolios, longevity swaps, portfolio swaps, etc.). In addition, I manage the retention policy of Swiss Life Group as well as handling the client and partner management.

**Society of Actuaries Activities:** This is the first time I volunteered for the SOA and I am looking forward to the experience.

**Relevant Experience:** I have worked in several parts of the world (United States, United Kingdom, Cyprus, and Switzerland) and continue to be heavily involved in international business. At my current position, I have the privilege to work in a variety of global projects involving different countries, regulations and, most importantly, cultures.

**Why are you interested in leading your section?** I enjoy pricing various insurance products around the world and learning about their unique challenges, especially with regards to different regulation regimes and culture. With this perspective, I would like to help the International Section "spread" the lessons learned in some countries to others facing similar challenges.

**BEN MARSHALL,** FSA, FCIA, MAAA, CERA, LLB, CLU, ChFC , VP & Risk Management Actuary, Royal Bank of Canada, Mississauga, Ontario Canada

**Professional Background:** I am active in ERM for the insurance companies of the largest Canadian bank, with specific accountabilities for capital planning, economic capital modeling and reporting, risk policy, risk management of strategic initiatives, product risk approvals and risk reporting.

**Society of Actuaries Activities:** I am a past contributor to *The Actuary*, past member of Fellowship Exam Grading Committees, frequent exam supervisor, and past winner of SOA's Speculative Fiction contest. I am also a longtime member of the International, Education and Research, Financial Reporting, Investment, Joint Risk Management (SOA/CAS/CIA), Management & Personal Development, Product Development, Reinsurance, and Technology Sections of the SOA.

**Relevant Experience:** I am an elected member of the International Actuarial Association's

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(IAA) Actuaries Without Borders (AWB) Committee. I have also been appointed as Canadian Institute of Actuaries' (CIA) liaison with IAA's Education Committee.

**Why are you interested in leading your section?** I am interested in serving with the International Section Council of the Society of Actuaries in order to facilitate its engagement with new and developing actuarial associations throughout the world. As a member of AWB's education subcommittee and newly elected chair of its microinsurance/microfinance subcommittee, I have seen both the need for North American actuarial engagement in more remote parts of the world, and the positive results that can come about through that engagement. I have also been involved in more traditional international actuarial practice and believe that the International Section is the right starting point for North American input into exciting and rapid new developments in the international actuarial practice arena.

LINA XU, PhD., FSA, MAAA,
Director, Prudential, Newark, NJ

**Professional Background**: Conducted mortality experience studies across Asian countries; consulted in constructing China industry mortality table; have conducted mortality, morbidity, lapse, and premium persistency experience studies.

**Society of Actuaries Activities**: Member of the International Section.

**Relevant Experience**: I have worked for a global reinsurer, a corporate insurer, and, recently, a direct insurance company. I've given numerous seminars and presentations to regulators (China Insurance Regulation Commissioner), the International Actuarial Conference, organizations and international insurance companies, and universities. I also had the privilege to work with and assist several national actuarial organizations and insurance companies. Through the exposure to all parties, I have built my credentials and networked with some Asian actuarial organizations and personnel. I was VP of the Boston Chapter of the Chinese Actuary Club, which has enhanced my leadership skills.

**Why are you interested in leading your section?** Through my diverse international experience, I can make valuable contributions to the section in communicating and working with multicultural actuaries outside of the United States. I feel I have much to offer the section in building a closer relationship with local actuarial societies/organizations and a stronger influence in the international actuarial practice. □


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# Indonesia

*By Mitchell Wiener*

*Editor's Note: This article was awarded 2nd place in our Country Feature Article competition.*

Since early 2007, I have been working with the Ministry of Finance of the government of Indonesia to implement a new social protection system for the country. The Asian Development Bank has financed my work. This project is an excellent illustration of the changes in Asian society brought about by macroeconomic development and demographic changes.

Until now, the primary form of social security in Indonesia is extended family and community. Only civil servants and workers in large private enterprises had any type of formal social security. In the past, Indonesia was largely a rural agricultural economy and was characterized by very large families (about six children per mother). Extended family tended to live together. Family members cared for their elders and took care of each other and communities helped out families that were experiencing difficulties.

However, over the past 20 years, Indonesian demographics have changed dramatically. Family size has sharply decreased (the fertility rate is now about 2.2 children per mother), life expectancy has increased at all ages and the country has become increasingly urbanized. Children often leave the villages where they were born and move to major cities in search of better wages. As a result, the family support system is breaking down and there is now a need for greater government participation in establishing, facilitating and financing social protection.

As a result of the 1997 financial crisis and these societal changes, the Indonesian Constitution was amended to require the government to establish a comprehensive system of social protection. The government subsequently passed Law No. 40 of 2004, commonly referred to as the SJSN law, to meet its new constitutional obligations.

This law outlines the broad features of the new social protection system but provides few details on how the system should operate. It requires the establishment of five social insurance funds covering all Indonesian workers and their dependants. Contributions to the social insurance funds will be a percent of pay and shared between workers and employers for the formal sector. The informal sector will pay contributions either as a percent of income or as a flat amount in local currency. The government is required to pay the social insurance contributions for those who are deemed poor.

The SJSN programs include:

- National health insurance,
- Defined benefit pension system paying monthly annuities,
- Old-age savings program—a defined contribution program providing a lump-sum benefit at retirement,
- Worker accident insurance, and
- Death benefit program.

The new system requires universal coverage and equal benefits for all Indonesians. This is particularly challenging because almost 70 percent of Indonesian workers are in the informal sector. In the United States, we think of the informal sector as tax-evaders and criminals, but this is not the meaning of the term in Indonesia. Instead, it is a term generally

applied to all workers who are not employed by a registered employer and receiving a fixed wage. Generally speaking, the informal sector is composed of self-employed workers, micro-enterprises, unpaid workers in family businesses and casual laborers.

In order to understand the SJSN law, it is first necessary to understand the current system of social protection and the institutions responsible for managing those programs. There are a variety of social insurance programs in existence in Indonesia today, but each covers limited groups of workers.

Social insurance institutes, referred to in Indonesia as "perseros," run each program. These perseros are for-profit state-owned enterprises and are required to pay taxes on their profits and pay dividends to the government. In recent years, the dividend and tax requirements have been wholly or partially waived by regulation, but this doesn't change their fiduciary obligation to the government.

There are four social insurance institutes providing benefits to civil servants, military and police, and employees of large formal sector employers. These same institutions are designated as the future administrators of the new universal SJSN programs. However, the law states that their legal form must be changed to not-for-profit institutions managing social security trust funds. These new administrative institutions are referred to in the law as BPJS.

The SJSN law also established the National Social Security Council (referred to as DJSN). It is responsible for oversight of the administrators and for managing the implementation of the new system. The council is a tripartite body composed of 15 members who are appointed by the president and contains representatives of key government ministries, employers, labor and outside experts. The DJSN members were appointed in November 2009.

The SJSN law is a "framework law"; it does not provide many of the details of the new system. Instead, most key system parameters must be specified in various types of additional laws and government regulations. Among the key aspects of the new system that are not specified in the law are benefit levels and contributions, manner of determining the number of poor, and the full legal and governance system.

As an advisor to the Ministry of Finance, I have been asked to assist the government in several key areas:

- Strategy for the governance structure, design, financing and administration of the new system;
- Design of the pension, old-age savings and death benefit programs;
- Management of the investment process for the old-age savings program;
- Harmonizing the new SJSN programs with existing social insurance and social assistance benefit programs;
- Development of a risk management and modeling capability within the Ministry of Finance; and
- Identification of the prerequisites and a roadmap for the start of the SJSN system.

The implementation of the new system of social protection will permanently change the social support structure of the country and the

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role of government.

This assignment presented me with many unique challenges:

- No other country with such a large informal sector has attempted to implement a universal social insurance system.
- Indonesia is the fourth largest country in the world, with a population in excess of 230 million scattered over a wide geographic area.
- The country's decentralization law passes a great deal of responsibility for social protection to the regions.
- The country is undergoing rapid demographic change and economic growth. It faces a whole new set of macroeconomic challenges as it becomes a middle-income country.

Some of the most interesting political and technical challenges I have faced in this project include:

- *Balancing affordability and benefit adequacy*. This is an issue in all pension design assignments, whether in the United States or overseas. However, the issue is particularly contentious in a country like Indonesia. Both employers and workers are opposed to high payroll taxes, but of course, labor wants high benefits anyway. In addition, the Ministry of Finance is worried about the impact of these programs on economic growth and unemployment. Private pension funds and insurance companies also do not want to see high taxes or benefits, as they are afraid it will crowd out the benefits they provide.

- *Severance pay program restructuring*. One of the biggest obstacles to labor market growth and mobility in Indonesia is the severance pay provisions of the labor law. A multiple of monthly salary must be paid to all terminating workers and the amount varies with years of service and cause of termination. This discourages employers from both hiring and terminating workers. The severance pay program is an unfunded defined benefit program that creates an accounting expense of about 15 percent of payroll. Employers are reluctant to support the SJSN programs unless it is accompanied by severance pay reform, while labor is reluctant to agree to reductions in benefits.

- *Acceptable financing arrangement for the pension program*. The pension program does not grant past service benefits and requires attainment of retirement age and 15 years of contributions in order to be eligible for a benefit. Consequently, benefit levels start out at virtually zero and then increase rapidly over time and benefits don't fully mature until about 40 years after system inception. At the same time, the Indonesian population is rapidly aging and will move from about 13 percent of the population over age 60 today to close to 40 percent by 2050.

- *Private vs. public asset management models*. Only formal sector workers currently have a quasi-defined contribution savings program. The social security institute manages the investment of assets and rates of return have generally been below expectations There is significant disagreement about who should manage the assets in the new program.

- *Dealing with existing social insurance institutes and their vested interests*. The difficulty with reforming most social security systems is the need to reduce benefit levels and increase retirement ages. Indonesia does not have this problem, as there is currently no national system.

Since early 2007 I have been working with the Ministry of Finance of the government of Indonesia to implement a new social protection system for the country....

The legacy issue in Indonesia is the role of the existing social security institutes. Understandably, none of them want to give up programs they currently manage and all of them want to manage the new programs.

The other major obstacle is the lack of capacity to manage the new programs. Key areas that must be strengthened include:

- Redesign of the existing system of collecting and enforcing contribution payments. Current compliance rates are too low.
- Proper method for supervision and control of the technical operations and financial solvency of the new administrators and the social security trust funds;
- Creation of an Office of the Actuary and risk management capability within the Ministry of Finance;
- Creation of a new organizational structure, job descriptions, business processes and IT systems for the transformed administrators;
- Creation of a strong DJSN capable of strategic and political leadership in the SJSN implementation and management process.

At this time, there is no true "champion" managing the implementation process. As a result, various parts of the SJSN implementation have been moving forward, but the progress has been uneven and uncoordinated. DJSN is the logical body to take the lead. However, it is in its infancy and has not yet developed into a strong institution.

Another recent blow to the SJSN process is the resignation of the minister of finance, Sri Mulyani Indrawati. She resigned as minister in early May 2010 and started a new job as a managing director of the World Bank on June 1, 2010. She was one of the leading reformers in the country and is well respected internationally. Her successor will have to be educated quickly about the SJSN programs and their potential impact on the country's social structure and the state budget.

At the current time, the SJSN programs have little impact on the state budget, employers or labor since they have not yet begun. However, once the programs begin, the cost of the programs will have an immediate impact on the budget and the macroeconomy. My estimates indicate the initial cost of all the SJSN programs will be about 3.1 percent of GDP, increasing to 6.1 percent by 2050. The government is obligated to pay contributions for the poor from the state budget. Depending on the number of poor, the cost will range from 0.2 to 1.4 percent of GDP in the early years of the program to 0.7 to 3.8 percent of GDP by 2050.

It has been my pleasure to work with senior policymakers on these challenges over the past three years. Although it will undoubtedly take longer than planned to implement, the new social protection system will ultimately create a more just society, reduce poverty, and provide greater stability in dealing with future macroeconomic and financial shocks.

For those who are interested in a more comprehensive description of the Indonesian challenge, a summary of my work over the past three years can be found in a white paper that has been publically released as a joint work product of the Ministry of Finance and the Asian Development Bank. A copy of this report is available from my website at *http://web.me.com/mcwiener/Mitchell_Wiener/Links.html.*

*This article was written prior to the author joining the World Bank. The article represents the views of the author and not necessarily the views of the World Bank.* □

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# Country Focus: Euroland

*By Matthew Modisett*

Europe is the place to be for anyone interested in risk management. The regulations coming on line focus on risk management and require even the most reluctant insurance executive to do the same. Those who embrace these changes will be the true winners, in terms of reduced capital requirements, excess returns on capital and enhanced competitive position.

While Europe is not actually a country, the European Union (EU) constitutes a separate regulatory jurisdiction for insurance in its own right, or at least it will when Solvency II hits. The term Euroland only approximates the situation, since the set of countries that make up the Euro differs from that for the EU.[1] Here, our focus is on Solvency II, an EU issue, but it must be noted that the EU itself is changing, with new countries coming in over time. So, Solvency II's impact goes beyond the current EU. But this doesn't matter. The EU is a poignant concept, whether or not it's fuzzy around the edges and still evolving.

The same can be said of Solvency II: fuzzy and evolving. Its final version remains under development. Only earlier this year did standard setters accept that such a basic assumption as the liability discount rate would include a credit-linked spread over SWAP rates, a change with major ramifications. This spread formula may change further after the next industry trial run, QIS5.[2] Portfolio allocations of insurance and pension entities will dramatically change in any event. (But I am getting ahead of myself.)

However, like an excellent wine, one's inability to definitively describe it does not diminish its taste. Nor its price. The expense estimates for implementing the new regulations are commonly viewed as enormous. Still, I have never been one to turn down a good wine just because I couldn't pronounce it (though perhaps because I couldn't afford it). So too, I appreciate the new regulatory regime. (Nice bouquet.) And while I do understand managers' hesitations arising from risk of the fuzzy, the evolving and the expensive, the costs are likely overplayed, and the potential upside for capital savings has been largely ignored.

We should not view Solvency II as merely a regulatory exercise. It is an opportunity to manage (lower) capital requirements. This requires sharper management processes, and, as we get into later, a wider collection of asset classes. Companies that do this well will become the most competitive to attract both customers and capital.

## CONCEPTS AND CONSEQUENCES

So, what is Solvency II? International standard setters describe it as a principle-based system, a phrase which allows a good-natured jab at

### FOOTNOTES

1 Countries using the Euro: Andorra, Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Kosovo, Luxembourg, Malta, Monaco, Montenegro, The Netherlands, Portugal, San Marino, Slovakia, Slovenia, Spain, Vatican City.

Countries in the European Union (EU): Austria, Belgium, Bulgaria, Cyprus, The Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, The United Kingdom

2 Quantum Impact Study (QIS) 5 is the first industry walk-through in which an illiquidity spread is allowed over SWAP rates.

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standards across the pond with their formulaic approach, historically replete with safe harbours here and there. In point of fact, FASB and the IASB have stated their intentions for financial reporting convergence, a development that will lead American standards to eventually look like Solvency II. In the spirit of sibling rivalry, some paint this convergence as "the United States catching up" while others say developments are occurring in parallel. All teasing aside, these developments shape all of our futures. Even though U.S. standards might change later, any companies holding EU subsidiaries will be impacted with the rest of Europe.

Solvency II's lack of safe harbours, replaced by judgment and accountability, may lend an ill-defined air for some. Nothing could be farther from the truth. Solvency II's principles are actually quite concrete.

### PRINCIPLE 1: STANDARD OR INTERNAL MODEL

Solvency II accepts differences in company practices while attempting to standardize requirements. It specifies a standard model but allows an internal one (if it passes muster). A stronger reliance on professionalism replaces a reliance on formulae, and even the standard model requires considerable judgment.

The more sharply defined standard model almost certainly increases capital requirements (at least if asset portfolios are held constant). These increases appear far in excess of any implementation costs for an internal model. Even if a company cannot implement a full-blown internal model, customization is permitted for a company to focus on critical (read "capital-expensive") assumptions and produce a "partial internal" model, at lower cost.

Some companies feel an internal model may be difficult to implement, probably impossible is the feeling. They certainly have no lack of consultants whispering in their ear to say that the implementation represents a historically unprecedented onerous task. The advisors seem to be using scare tactics, playing up difficulties in implementation (no doubt hoping for more work). However, this stance may actually be backfiring, as many companies, especially the larger, more bureaucratic ones, opt for the standard model.

While the cost of developing models is a factor, reasons other than costs motivate the choice of a standard model. For starters, nobody is sure what form of internal model would be acceptable, so planning on one represents a roll of the dice; even CEIOPS'[3] "Pre-Application for Internal Model" comes with a disclaimer that it is not a pre-approval process, only an opportunity for feedback. Further strikes against an internal model might arise from the use test, which is the next principle.

### PRINCIPLE 2: INTEGRATION OF AN INTERNAL MODEL INTO THE COMPANY: THE USE TEST

The internal model must be integrated into the business management. "Integrated" is stronger than merely "used," but the regulations speak of a "Use Test". Any parsing of company divisions in an internal model must match existing business structures, legal and reporting. However, "use" goes farther than that. The model must be integrated and used.

Management in general must become more conversant with the risk models and processes, and in particular must be sufficiently conversant in their limitations (the models', that is).

#### FOOTNOTES

[3] Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) is the entity designing and implementing the Solvency II standards.

The regulatory requirement to establish this integration of the models into the company's day-to-day business no doubt leaves some executives wondering how much of their organizations must be overhauled. "Will this be on the final?" Indeed, do they need to pass some pop quizzes, or how exactly will it work? The standard model seems easier.

## PRINCIPLE 3: THE 1-IN-200 YEAR EVENT

Assets should be sufficient for the company to survive a 1-in-200 year event. While this paradigm does not come with specific formulae, it does represent precise criteria.

This goal standardizes the target for capital sufficiency, for either a standard or internal model. One-in-200 provides the single tool through which we can funnel every risk. Perhaps with this paradigm, executives who have many more tasks than risk management have a hope of coming to grips with models. Executives can leave the specifics of any particular risk (and correlation) analysis to the professionals, still understanding enough to identify critical issues and address them, while ensuring the professionals carry out all details day-to-day in the most state-of-the-art manner.

## SUB-PRINCIPLE 3A: CORRELATIONS (-LIKE) AGGREGATION OF INDIVIDUAL RISKS.

Each dimension of risk (e.g., mortality, equity levels, interest rates, currency rates, etc.) must be modelled. These individual risk dimensions are, in the standard model, blended via a correlation matrix approach. This employs a two-tiered approach, in which the top tier includes: Market risk, Default (of reinsurance counterparties), Life Insurance, Non-Life Insurance and Health. A lower tier breaks out further Life, Non-life and Market risks.

This proves to be a practical approach. A full model varying all risks simultaneously would be huge. And slow. Not everybody's cup of tea. Modelling each risk separately and appealing to the correlation approach avoids exponential model growth. Further, it at least gets the first order of interdependency into the calculation.

This practicality comes at a theoretical price. Clearly, any relationship involving more than two variables is lost. Also, while correlation provides a useful statistic for some distributions, it likely is poor for non-standard (e.g., thick-tailed) distributions. Besides, the paradigm of a 1-in-200 year event is a measure of tail events, like Value-at-Risk. Aggregation using correlation formulas is not theoretically justified. In fact, guidance from CEIOPS[4] recommends using the correlation parameter as a free variable to calibrate 99.5%-VaR estimates for sums of variables, a method on tenuous theoretical ground.

Practicality may trump all of these. A little theoretical license saves a lot of computing power. Besides, were those higher correlations (copulae) really calibrated and scenario tested to truly be adding value? (If you answered yes, make an internal model.) Furthermore, regulatory correlations need not be set as the "best estimate" from history. (The standard formula correlations are notably high.) Setting correlations to be higher certainly makes sense within the 1-in-200 paradigm, but it is clear ahead of time that increasing the correlations increases the final capital requirement; as an expedient, correlations are not shocked separately, rather they are simply made higher in the standard model.

### FOOTNOTES

[4] CP 74, Point 3.15

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We should admire the regulators' goals, whether or not they have gotten it totally right yet. They provide a workable model as a standard but it is likely to be capital expensive. This suggests they are encouraging insurers to customise to internal models, but if this is so, why are the requirements for this so opaque? Like I said, it is a work in progress.

## PRINCIPLE 4: MARKET VALUES

Some feel this is the principle that started it all. While market-valuing assets proves less problematic, the market valuation of liabilities has been debated since at least the early 1990s.

The liability discount rate is crucial, which has an obvious leveraged effect. The industry has been quite clear that using a governmental discount rate would increase reserves unreasonably, potentially wiping out current capital. In February 2010, CEIOPS accepted the CRO Forum's view that an "illiquidity"[5] spread (over SWAPS) should be used when discounting liabilities.

This represents an enormous development, a decisive convergence between regulators and industry. In the first place, it coincides with most ALM techniques, facilitating the validation for the use test. More importantly, the industry avoids (or at least mitigates) a huge hit to surplus that would have arisen by using governmental rates.

Companies who disagree often do so because this development does not go far enough. The illiquidity premium currently comes in below half the credit spread and, in turn, only half of this gets used in the liability discount rate (for most liabilities). Accordingly, when the "spread shock" is performed, only a quarter of the spread shock used on the credit assets applies to the liabilities. So, for insurers that have exactly 25 percent credits in the portfolio (duration considerations aside) there would be no spread charge for capital. Anything more (or less) would incur an onerous capital charge, perhaps more than doubling capital requirements.[6]

The CFO/CRO Forums jointly appealed this May for more illiquidity spread to be allowed for the liabilities, but even if their pleas are heard, the neutral credit position would only move from 25 percent to 37.5 percent.

## ASSET PORTFOLIOS MUST CHANGE

Theoretically, the change might seem easy and not require anything new: credits could be reduced to the neutral position on a duration

### FOOTNOTES

[5] Some say "liquidity."

[6] For example, with spread duration of 5, and a shock of 200bp and a portfolio of 90% credits, this single stress test would have a capital charge of (90% - 25%) x 5 x 200 bp = 7.5% of assets.

weighted basis and governments used to adjust non-credit duration.

Well, no. In Europe, governments trade at a spread to swap (and to each other). In a 1-in-200 paradigm, this spread must be tested. This would be akin to testing the spreads on state or municipal bonds in the United States. (This has not been said yet, but the writing is on the wall, in Greek. To see, do an internet search for "PIIGS.") Interest rate derivatives can be used to manage non-credit duration. Still, attractive alternative assets are needed, assets unrelated to spreads. They should also have little relationship to equity and property risk. For example, intellectual property rights could be a new class unrelated to traditional investments. What else?

As you can see, while Solvency II is evolving, it's not fuzzy. Its principles are clear, relying on professionalism. Also, it is clear that some practise will change, and employing new assets tops the list. Solvency II represents more than a regulatory exercise. On offer are capital requirement reductions and increased ROE[7], and will those rising to the occasion will become more competitive? In any event, actuaries have a golden opportunity to lead and shine. So, update your passport. □

### FOOTNOTES

[7] This competitive motivation could be tempered if country regulators decide to maintain separate (additional) requirements that amount to a minimum amount of capital. For example, in the United Kingdom the author knows of no decision as to whether or not the Pillar 1 (more formulaic) capital requirements will be maintained when Solvency II comes into play. It is foreseen that Solvency II will replace the U.K.'s Pillar 2, also called the Individual Capital Assessment (ICA). Watch for what local EU countries say on this issue. Eventually, however, it is expected that only the CEIOPS would remain, without a minimum standard from the individual countries.

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# How a Developing Actuary Defines Today's U.K. Annuity Market

*By Caroline Liu*

The evolution of the annuity market in the United Kingdom is strikingly similar to one's progression through the actuarial examination system, as I have learned over my first 18 months working in the United Kingdom.

Let's begin the development of my realization of this parallelism.

It all began with the 1956 Finance Act, which opened the doors to the compulsory annuity (also known as Compulsory Purchase Annuity, or CPA) market in the United Kingdom. It was this act that allowed the Defined Contribution plan to become a truly viable option for retirement income by granting tax relief to such schemes while requiring the funds to be annuitized at retirement. Similar to actuarial students taking their first exam, companies became aware of the potential monetary benefits that awaited them in the seemingly distant future. At that moment, each was an actuarial infant, if you will, of the game. One is both doubtful and afraid of being the first of his or her peers to enter the market, and similarly, register for the exam. It's hard to know what to expect and exactly how much time and effort is enough to succeed. And often in the initial phase, it's difficult for some not to compensate for their fears by overanalyzing the situation or over-studying. Hopefully, for the few that do end up initiating themselves, the final resolve comes that one really just needs to have faith in oneself to attempt that first hurdle.

There are simplified rules and definitions, of course, that aid today's annuity provider and actuarial student. An explanation of the path to becoming an actuary, for example, is the requirement of the successful completion of a series of examinations and a minimum number of professional development hours. Likewise, an annuity is basically a series of payments, usually guaranteed for life but sometimes for a fixed term. The payments may be level, increasing, decreasing (depending on the spousal percentage options), or linked to an investment fund. Also, the current U.K. rules for CPAs obligate the purchase of an annuity between ages 55 and 75.

Those are just the basics. Once you enter the market, it doesn't stop there. You soon realize you are competing with the best of the best risk managers, statisticians, and economists, all vying for the same limited number of "pass marks" in a multi-billion pound market. There are admittedly more overachieving types who have the ability to repeatedly pass several exams simultaneously than firms, or even pricing actuaries, who continuously maintain the best annuity rates in the market, but the latter do exist. Eventually, an unsustainable investment outlook, the risk of severe operational inefficiencies, and a combination of internal and external pressures will bring a long-time leading company back in line with its competitors. From many come few. Those less diligent are driven out, leaving an increasingly elite group. Annuity rates are viciously competitive in the United Kingdom, to the extent that a 2 percent difference in the periodic annuity payment can take a company from first to fifth place overnight. Last year alone, the top five annuity providers adjusted their conventional annuity rates almost 70 times! That averages to over 13 times a year per provider.

A couple of years' experience in the system and now you've got some momentum. Your confidence increases as you realize you can keep up with the big boys by continuing to pass exams

The evolution of the annuity market in the United Kingdom is strikingly similar to one's progression through the actuarial examination system, as I have learned over my first 18 months working in the United Kingdom.

and being acknowledged as a solid competitor in the market. You start to recognize the same faces in the exam room, at professional development events, in sales and marketing conferences, and on board committees. You grow more comfortable and stable.

Undoubtedly, the steady passing of exams doesn't come without its challenges. Just as the annuity industry must evolve to meet the demands of its clients, competitors, and regulators, so too must the actuarial candidate adapt to changes to the examination process. Is more experience going to be required in the future? How do the new rules affect my organization and me? How can I best approach and possibly capitalize on my new situation? Rapid memorization and only a basic understanding are no longer enough to get by, let alone sustain one's foothold. Coincidentally, in the same year as the CA3, or Communications exam, is offered for the last time as a three-hour written exam and is replaced by a two-day course, so too do the Institute of Actuaries and the Faculty of Actuaries propose an increase in the Professional Development requirements for actuaries practicing in the United Kingdom. Further, in the same month the exam is last offered, the minimum annuitant age of 50 is raised to age 55, so that the market is flooded with annuitants hurrying to retire early and likely a record number of students registering for the CA3 exam for the April 2010 sitting.

A more serious issue affecting the annuities industry today is the implementation of the new Solvency II (SII) regulation by the European Commission. SII is an update to the former set of capital requirements and attempts to unify insurance services in the EU by setting a consistent economic basis for the valuation of assets and liabilities using a risk-based approach. It also enforces higher levels of consumer protection and capital adequacy in an effort to promote the overall financial stability of the industry. Although SII does not formally come into effect until late 2012, its ramifications compel insurers to prepare for it well in advance. This regulation cannot be outlined here in the details with which it deserves; suffice it to say, it will have significant effects on the entire European annuity industry and has been affectionately termed the "Basel for Insurers."

Developing actuarial students are often employed, so they must learn to optimize their time to succeed in the exam room, at the office, and at home. The ability to nourish both one's professional and personal lives is a real skill, as many of us will remember. Passing one exam is only one small step in becoming an actuary, just as learning how to price one type of annuity will only get a company so far. In the United Kingdom, for example, it became apparent that pricing by age, gender, and fund size was no longer enough to capture the mortality risk accurately. Improving longevity and fierce competition forced the introduction of new rating factors, so providers sought to improve their pricing sophistication. Notably, in 1995, Stalwart launched the first smoker annuity, while Partnership Assurance (formerly the Pension Assured Friendly Society) offered the first enhanced annuity, or one based on medical factors. Milestones in annuity pricing continued with the aggressive launch of postcode pricing by Legal & General and, not unlike study groups that are formed to encourage fellow students in

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their exam endeavours, annuity providers co-operated with each other to design the Industry Common Medical Form. This questionnaire for enhanced annuities has enabled the retrieval of better quality health information.

Certainly, in the last five years, the U.K. annuity market has undergone a massive phase of evolution, especially with the expansion of the enhanced annuity market. A myriad of rating factors varying from postcode, marital status, and occupation, to lifestyle factors (e.g., smoking, body mass index, hypertension, diabetes, and high cholesterol) to even more serious medical conditions is now becoming the norm.

Ask any actuarial student who has ever failed an exam and he or she will describe a feeling not too different than that experienced by providers who have invested heavily in the marketing and development of the U.S.–styled variable annuities. While conventional, postcode, and enhanced annuities constitute the bulk of the market, this product has struggled in an area already rich in diversity, and may ultimately end up being stripped down and simplified by providers in the United Kingdom, possibly then becoming a realistic export!

Like the future of a newly qualified actuary, the outlook of the U.K. annuity market looks promising at the least, with over £10.8 billion in premiums last year, according to the Association of British Insurers (ABI), and a forecast of £18 billion by 2012. The innovations continue with more sophisticated online quoting tools and are expected to tighten the market even more as companies scramble to find the next best thing.

So, what is the moral of this story? That one's goals should be clear in order to achieve success. That innovation and perseverance can help both the actuarial student and insurance company to excel. And that it takes hard work and serious dedication, not to mention courage, to become an actuary, particularly one who has decided to focus her attention on the rapidly evolving annuity market in the United Kingdom. Hats off to all the actuarial students and annuity providers for their relentless efforts. And three final words for this small fish who has recently crossed the pond: Wish me luck! ☐

**Frequency of Conventional and Postcode Annuity Rate Changes in 2009**

| Company | Number of Changes |
|---|---|
| Aviva | 16 |
| Prudential | 14 |
| Legal & General | 13 |
| Canada Life | 13 |
| AEGON Scottish Equitable | 11 |
| TOTAL | 67 |

Source: Legal & General

**ABI 2009 New Premium for Top 5 Annuity Providers**

| Company | New Premium (£million) | % of Total ABI |
|---|---|---|
| Prudential | 2,189 | 20.2 |
| Aviva | 1,688 | 15.6 |
| AEGON Scottish Equitable | 1,185 | 10.9 |
| Legal & General | 1,033 | 9.5 |
| Canada Life | 760 | 7.0 |
| TOTAL ABI Companies | 10,835 | 63.3 |

Source: Association of British Insurers

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# Switzerland: The Income Protection Market

*By Carlos Arocha*

The Swiss spend heavily on insurance. With a total premium (i.e., life and non-life) per capita in 2008 of USD 6,380, Switzerland's insurance density ranks number three in the world (USD 3,552 in life business per capita, or world rank four).[1] Life assurance penetration in 2008 was 5.5 percent of GDP. Some life assurance products are compulsory, e.g., contributions to the state pension scheme, which are deducted at source from salaries, and health insurance which every resident must secure privately. An average Swiss family spends about one-fifth of household budget on insurance products, placing the Swiss among the world leaders on private insurance expenditure.

Despite the embedded insurance culture, Swiss carriers earn about one-half of their revenue abroad. Including reinsurance, Switzerland is one of Europe's leading insurance exporters.

| Company | In Switzerland | Abroad | Total |
|---|---|---|---|
| Zurich | 4.5 | 59.0 | 63.5 |
| Swiss Life | 8.2 | 18.5 | 26.7 |
| Swiss Re | 0.7 | 25.5 | 26.2 |
| AXA Winterthur | 10.3 | 10.3 | 20.6 |
| Basel | 3.9 | 7.0 | 10.9 |
| Helvetia | 3.1 | 5.7 | 8.8 |
| Allianz Suisse | 3.9 | 3.9 | 7.8 |
| Die Mobiliar | 2.8 | 2.8 | 5.6 |
| SCOR Switzerland | 0.1 | 2.2 | 2.3 |
| Generali Switzerland | 2.1 | 2.1 | 4.2 |
| National | 1.2 | 1.7 | 3.9 |
| Vaudoise | 0.9 | 1.8 | 2.7 |

Premium volume of large insurance/reinsurance groups in 2008 [2] (bn. Swiss Francs[3]).

The Swiss life assurance market consists primarily of savings and pension products. Individuals and families can be protected against economic insecurity through the purchase of individual life and health insurance. Savings can be accumulated to meet the financial impact of economic insecurity. Individual retirement account benefits are often available. The worker and family are also protected against economic insecurity through various group insurance programs of private companies. Employers provide private pension plans. Group life, health and disability benefits may also be available.

Under Switzerland's Federal Disability Insurance Scheme (IV–*Invalidenversicherung*), all workers are compulsorily covered with a state-provided disability monthly pension up to 70 percent of salary. The Federal Law on Occupational Retirement, Survivors' and Disability Pension Plans (BVG–*Bundesgesetz über die berufliche Alters-, Hinterlassenen- und Invalidenvorsorge*) provides for a mandatory occupational scheme that complements state benefits. In addition, individuals may opt for private contributions to a "third-pillar" tax-deferred account, up to a maximum annual amount.

### FOOTNOTES

1. Sigma 03/2009: World insurance in 2008, Swiss Reinsurance Company
2. Facts and Figures 2010: Swiss Insurance Association
3. All USD Figures herewith are based on the exchange rate at the end of July 2010, i.e., CHF 1 = USD 0.96

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Insurance products are designed within the above framework in mind. Most products offered today will feature the following:

- flexible, individual solutions to meet specific needs;
- financial security and maintenance of living standards in the event of disability, as complement to state- and employer-provided benefits;
- waiver-of-premium on disability;
- tax-savings on "third-pillar" restricted plans;
- non-smoker premium discounts; and
- benefits paid as pensions of lump sums.

In pricing their products, insurers consider non-smoker experience and profit-sharing schemes. Few companies offer dread disease products as an acceleration-type benefit, and stand-alone covers are not commonly found.

A typical disability product is structured shown in the table below.

| | |
|---|---|
| Premium mode: | Monthly, quarterly, semi-annual or annual |
| Minimum insurable pension: | CHF 6,000 (approx. USD 5,735) |
| Entry age: | 18 |
| Maximum final age: | 65 |
| Minimum policy term: | 3 years |
| Waiting periods: | 2–24 months |
| Disability pension payments: | Quarterly, with first payment after expiration of waiting period |
| Policy loans: | Usually not allowed |
| Surrender value: | Usually none |
| Taxation of disability pensions: | Fully taxed |
| Taxation of premiums: | Fully tax-deductible up to a maximum limit |

Future product development activities will be impacted by an overhauled solvency requirement system. Through a risk-based solvency standard (i.e., Swiss Solvency Test, or SST), insurers are answering the question of how much capital at the beginning of the year is required to cover liabilities at the end of the year with a 99 percent confidence level. The SST, a market-consistent valuation of assets and liabilities, is Switzerland's answer to Solvency II. Already adopted by insurers, capitalization under SST will be mandatory in 2011.

In 2008, life insurance premiums in Switzerland grew by 2.3 percent to CHF 30 billion (approx. USD 28.7 billion). In contrast, global life assurance premiums fell by 3.5 percent, a result triggered by a 5.3 percent decline in premiums in the industrialized world.

The financial crisis severely impacted new sales of unit-linked products, particularly those sold on a single premium basis. Countries like Britain, Ireland and France experienced a marked decline. However, sales of fixed annuities and savings-oriented life policies in Switzerland offset declines in unit-linked business. The income protection market remains competitive. The sector demonstrated its resilience. □

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# It Is Politics

*By Nian-Chih Yang*

You heard a sigh of relief when the haggling in the U.S. Congress over the health care reform bills was over. A compromise was reached and majority ruled, as it ought to be in a democracy.

In another thriving democracy on the other side of the Pacific Ocean, theatrics as in the United States are also unfolding. Partisan politics played out in Taiwan is as intense, if not more! Watching political talk shows is a national pastime. These programs are broadcast live during the prime time and always receive high ratings. Interestingly, tourists from neighboring regions are known to choose staying in to watch these programs over going out on the town. The programs tend to have obvious political leanings and are blamed for fueling political polarization. They are full of conspiracy theories and false accusations. Objectivity is secondary to attaining high ratings.

It is difficult to have a constructive discussion on public issues in this charged environment. Policy debates quickly turn into finger pointing and mudslinging. Public officials on the island country govern with their eyes on the polls constantly and take the route of least resistance. Sadly sometimes the polls only reflect the shortsightedness of the public. The desire of staying in office results in quick reversals in decision and temporary fixes.

## EPISODE I: HEALTH CARE SYSTEM DEBATE

In early March, Yaung Chih-Liang, the health minister in Taiwan, suddenly announced his resignation. It is because he would not go along with the premier's proposal where 75 percent of the people should be unaffected by the premium increase for the national health care plan and only the wealthiest 25 percent should be made to pay more.

Minister Yaung had previously been blamed within his own party for making blunt statements on rate increases at inopportune times that might have contributed to a few defeats in local elections.

He felt obligated to transform the program into a financially viable system. The system is under stress, with a projected US$3 billion shortfall by the end of 2010. The majority of the rising costs, similar to the United States, came from the aging of the population and demands for high quality care with the latest technological and medical advances. The deficits increase over time. The issue of fraud and drug pricing contribute only a minor part to the rising cost problems.

Minister Yaung blamed the issues on a short election cycle (yearly elections), which he claimed made so the government unable to put forward a sensible policy (e.g., delaying necessary rate increases). During his resignation press conference, he even offered to put up his own money for a referendum of election reform (fewer elections).

Minister Yaung's resignation announcement quickly turned public opinion to his favor. The premier modified his position. The government will now make up the funding shortfall, even though the rate adjustment is still limited to the wealthier group.

The minister had to deal with the pressure from the opposition party, which was in office for

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eight years prior to the current administration and had ignored the deficits. However, the prior administration's role in current problems has not stopped them from accusing the present administration of not having a consistent policy and lacking the backbone to take on difficult decisions.

Aside from the funding obstacle, the public regularly gives high marks to their health care system. The health care program is generally credited with providing freedom of selecting service providers, a high level of care, universal coverage, a broad range of services (including Western medicine, dental, traditional Chinese medicine and mental illness services,), easy access, short waiting period, and low costs. The single-payer, government-administered system, coupled with advances in data processing capability, provides a high administrative efficiency to the health insurance system in Taiwan. The adoption of the electronic identification card and the payment of fees directly to health care providers further improve the convenience of access.

Based on data at the end of 1999, health care spending in Taiwan is 6.1 percent of GDP, which was among the lowest of all the developed countries (United States 15.3 percent, Canada 10 percent).

Taiwanese were filled with pride when Nobel Laureate and New York Times columnist Paul Krugman hailed Taiwan's health care system in his column as a model of success. He pointed out that the savings from going with the single-payer system had expanded the coverage to a previously uninsured population without a major increase in health expenditures. Mr. Krugman was warmly received when he paid a visit to Taiwan in May 2009.

## EPISODE II: SALE OF AIG ASSETS

Politics played a role in the sales of AIG/ Nan Shan in Taiwan. During the credit crisis last year, the U.S. government rescued New York-based AIG with a Troubled Asset Relief Program (TARP) loan bailout package worth up to US$182.5 billion in exchange for 79.9 percent ownership of the huge insurer.

AIG recently sold most of its Asian subsidiaries to pay back a portion of the TARP loans. Hong Kong-based AIA was sold to UK Prudential PLC for US$35.5 billion. ALICO, another subsidiary based in Delaware, was sold to MetLife for US$15.5 billion. A third subsidiary, Taiwan-based Nan Shan, was sold for US$2.15 billion to an investor group led by Hong Kong's Primus Consortium that also includes investment firm China Strategic Holdings Ltd. The investors are mostly the wealthiest businessmen in the region.

*(Author's note: The AIA deal with Prudential U.K. ultimately failed to happen due to Prudential's inability to finance it. The Nan Shan deal was rejected by the regulators citing sensitivity/ suspicion of investors' Chinese connection. As*

*of October 2010, AIG is scheduled to make a public offering of AIA at the Hong Kong Stock Exchange, while Nan Shan employees' and customers' uncertainties continue to hurt Nan Shan's market presence.)*

The Nan Shan deal is waiting for the local regulatory approval. Even though this deal was announced much earlier than the other two and has the least amount of investment fund involved, it has managed to drum up the most controversy. During this period of uncertainty, Nan Shan's market share in terms of the first year premium has dropped from the top to the eighth place.

Some of the terms of the deal are known. The acquirer agrees to maintain the Nan Shan brand. It also has agreed to retain existing compensation and benefit packages for Nan Shan's 4,000 employees. The agency organizational and commission structure will be kept for at least two years after the deal is closed. The current Nan Shan management team will stay put.

The employee union's demands include the full return of provident fund (retirement contribution made by the agents and employees). They also raised concerns with the lack of industry knowledge of the new owners and with their intention of staying for the long haul. The Hong Kong financial authority at one time censored China Strategic Holdings Ltd for improper stock manipulation. The union is concerned that the new investor may be a corporate raider.

However, the deal breaker turns out to be whether money from China is involved in the purchase. Even though cross strait relations with China have improved, people are still cautious. There are laws on the books prohibiting investment from China. The Economic Cooperation Framework Agreement (ECFA), a broad-based business agreement between China and Taiwan, is expected to be signed in June. The restrictions on investment from China will be greatly reduced. Yet, in the current political atmosphere, any matter involving China is an easy target that can be stirred up from all possible angles and manipulated by anyone for legitimate concerns or for hidden agendas. The regulators must be very deliberate in every step of the review process for fear of being challenged by any of the interested parties.

Taiwan Insurance Bureau (TW IB) has reviewed and agreed that there is no source funding from China based on the information provided by Primus and China Strategic Holdings Ltd. The investors pledge that there is no such funding involved and they are willing to forfeit their money if proved otherwise.

Nan Shan serves more than 4 million life insurance policyholders in Taiwan. It is the third-largest life insurer in the country in total premiums, with an asset of US$30 billion. The departure of AIG saddens many veterans in the industry. Nan Shan first successfully introduced the Western-style agency system into the island. Nan Shan alumni filled many key positions for insurance companies in Taiwan and other Asian countries.

## EPISODE III: NEGATIVE INTEREST SPREAD BUSINESS

AIG's sale of Nan Shan is consistent with the exodus of other foreign life insurance companies in Taiwan. The timing was fortunate for AIG in the sense that there are many local carriers to bid for its business. Based on Fitch Ratings' report last November, life insurers in Taiwan have to provide an additional reserve of US$26.5 billion for negative interest spread.

The Taiwan Financial Supervisory Commission has scheduled the implementation of IFRS 4 (Phase I) next year. Insurers will have to phase

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in the larger liability reserve that reflects the interest rate loss. For those foreign insurers that have to comply with the more stringent fair value valuation requirements, the additional reserves required are many times larger than the new local requirement.

MetLife, Aegon, ING and UK Prudential have sold their respective life insurance businesses in Taiwan in the last couple of years. The key reason for the European insurers to get out of the Taiwan market was the coming Solvency II requirements, as well as Embedded Value and Market Consistent Embedded Value. By selling, they can recoup some of their loss by releasing the burden of the huge reserve liability. Their embedded values actually increased after these transactions.

UK Prudential sold its agency business to Taiwan's China Life for NT$1.00 (US$0.03). In this case, the acquirer put up the reserve and assumed all the liability. On the other hand, the seller walked away empty-handed but the lien on the seller's bank account of hundreds of million dollars was removed.

By acquiring the additional inforce businesses from the foreign carriers, the local companies gain market share to achieve certain economy of scale. Under statutory accounting rules, the local companies are required to establish a much smaller reserve. In the meantime, they hope the investment environment will turn around before long. Both parties expect to gain from these transactions. Only policyholders with a high guaranteed rate may lose out from the possible reduction of future benefit.

Even back in 2003, life insurers were facing a serious negative interest spread situation. The Taiwan regulators provided relief by lowering the valuation rate for new business to 2.5 percent and raising the oversea investment ceiling to 35 percent. Unfortunately, the investment rates have not risen and the insurers are in an even tighter bind.

In the deepest stagnation of a decade ago, Japanese regulators allowed the insurers to credit a lower interest than the guaranteed interest rate specified in the contracts. With many insurers having negative net worth and receiving dismal investment returns both locally and overseas, Taiwan's regulators may have to provide similar relief to the insurers. If the regulators choose to take this route, it would be hard for the policyholders to stomach.

For political expediency, it is easier for the regulators to allow for these benefit adjustments, if this negative interest spread business is held by domestic carriers rather than by foreign carriers. By design or not, after the recent transactions, the local insurers now hold most of these businesses.

## FOOD FOR THOUGHT

Politics played out in a democracy often seems to be messy and ineffective. During Krugman's visit to Taiwan and on many other occasions, he made the rhetoric statement that he wishes the U.S. government could be like China's for a day. Reportedly, he was frustrated with the development of health care reform and addressing global warming climate change in the afterglow of the Chinese government's success with the 2008 Olympics. This fueled the debate of the virtues of democracy.

The possible benefit of more effective yet non-democratic government is pitted against the risk of deviation of public interest and political elites' desire. Does our actuarial insight of balancing risk and reward influence our personal opinions on this debate? □

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# Writing SOA Exams Abroad—Challenges and Rewards

*By Anna Dyck*

## TIME TO STUDY

It's August. I'm sitting the SOA Design and Pricing (Canada) exam this November, so I'm only about knee-deep in studying. September will be waist-deep and October it will hit the neck.

There are about 200 or so people knee-deep in the exact same material (many more if you consider all of the FSA exams offered this November)—unfortunately, almost all of them are across the Atlantic. I'm in London, and as far as I know I'm the only one here studying for this particular exam.

I have been in London for almost two years now, working for Towers Watson (previously Towers Perrin) in their International Consulting Group—it was a great opportunity and I jumped on it in my last year of university. When I moved, I knew nobody, was fresh and naïve just out of university, and due to some unforeseen circumstances ended up starting work just 24 hours after touching down. However, I settled in fairly quickly, enjoying work and making new friends.

Arriving with all my preliminary SOA exams complete, I spent the first year in London finishing up my FAP modules. Then the FSA exams hit, and I realized there were additional difficulties I should have prepared myself for.

## CHALLENGES

First of all, living and working in London is a challenge all on its own. It's crowded, noisy, expensive, and (according to some) unfriendly. I have met many people who moved to London (most from Canada, like me), "toughed it out" for a year or so, and then retreated back home. Some, like me, find their place and love it, unsure of how they will ever move back.

The challenges I'm referring to here, however, are those to do with working and taking the SOA exams anywhere outside of Canada and the United States.

## WORK DEMANDS

This may be an overgeneralization, but it's been my experience that the demands of working in London are higher than in Canada and the United States. Having previously worked in Canada and the United States, also in consulting, I did not see people working as long of hours as I do over here. Even if this does not hold true for where you move to, consider this —everybody, everywhere, to some extent, struggles to take their study days and to balance work with study.

For me, "busy season" at the International Group starts in October and doesn't ease up until February, which will mean I have to be very disciplined in the weeks preceding my exam. Most problematic is the fact that my exams have slightly different timings than the U.K. exams, and are not automatically considered when looking at workflow and resourcing. I have to constantly remind people that I can't be put on projects that peak in late October or early November of this year.

## CONFLICTING STUDY PROGRAMS

As I just mentioned, there is the timing issue. This sitting, most of the U.K. exams finish three weeks before my exam, meaning everybody is celebrating long before I'm ready to. Conversely, by mid-September, I am likely to need to

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take on extra work as all the U.K. students hit crunch time, and my exam will still be deemed as far away.

Then there is the company-sponsored study program. The U.K. exams are structured in a very different way and, as a result, my study program is a mirror of a typical Canadian and U.S. study program—but with the study days curtailed a bit, so as not to appear more generous than the U.K. program. Another peeve is that the North Americans get a bonus for each exam they pass on their first try, but there is no such incentive in the United Kingdom, and therefore no such incentive for me.

## SUPPORT NETWORK

The biggest challenge I find is the lack of anybody around you that's going through the exact same process. Especially after university, when everybody goes on their own separate paths, it's daunting suddenly having nobody to very directly relate to. My Canadian friends back home writing the same exams have completely different lives. My U.K. co-workers and friends have completely different exam requirements, schedules, and study programs.

There are not only no study groups for me, but also nobody to ask any questions I may have, run any ideas by, or even have a bit of a moan with.

## SUGGESTIONS

**Go to the seminar**

Towers Watson's official study policy for students studying for SOA exams in the United Kingdom (yes, they created such a policy—pretty much purely for me) states that any seminars are not covered. However, I managed to get an exception for this exam, on the basis of my previous exam performance and the fact that it will be my last.

**Make use of the forums**

As a first, check the SOA website. Chances are, if you have a question, the answer is there or there will be someone suggested you could contact. If you can't find your answer or a point of contact, *customerservice@soa.org* can probably point you in the right direction.
If you just want to discuss or debate an exam or module topic, the forums in the e-Learning centre of the SOA *(http://elearn.soa.org)* and the Actuarial Outpost (*http://actuarialoutpost.com)* can also both be helpful resources.

**Get involved with the SOA**

The United Kingdom has only about 200 SOA members,[1] less than I was expecting. It makes sense though, because most people are members of the U.K.–based Institute of Actuaries,[2] who offer their own exams. However, there are at least some of them out here that are active.

At my last exam, CSP-RC in April, I noticed when papers got handed in that there was in fact a girl writing the same exam as me. However, by the time I saw the paper, she was out the door. If she got involved in the SOA, we could have met!

## REWARDS

Overall, moving to London was the best decision I've ever made. If you're a member of the international section, chances are you are of a similar mindset. I've gotten to explore Europe and the world, both from a personal travel perspective, and a work perspective, since working in the International Group has allowed me to work on many international projects.

Just don't underestimate the culture shock you may face—personally, professionally, and academically! ☐

### FOOTNOTES

1 *http://www.soa.org/about/membership/about-analysis-of-membership-outside-canada-us.aspx*
2 *http://www.actuaries.org.uk*

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# Outlook of the Actuarial Profession and Economics in Argentina

*By Javier Campelo*

## THE ACTUARIAL PROFESSION IN ARGENTINA

In Argentina, there are about 700 qualified actuaries. About 200 are matriculated at the Professional Council of Economic Sciences (CPCE). The schools that offer actuarial science undergraduate degrees in Argentina are the University of Buenos Aires (UBA) and Universidad del Salvador (USAL). The Professional Council of Economic Sciences offers continuing education. There are about 1,800 people studying actuarial science (most of them at UBA). Of those, about 300 are in the last two years of the program.

The Argentine Actuarial Institute (AAI) is a national association of actuaries. This Institute is an associate member of the International Actuarial Association (IAA). The members of the Society of Actuaries (SOA) in Argentina are few. As per the ambassador work plan, actions have been taken to promote the SOA in Argentina.

## OUTLOOK OF THE ACTUARIAL PROFESSION IN ARGENTINA

A growth in actuarial positions is expected this year in developing, pricing, and evaluating financial insurance products (e.g., life, auto, health or homeowner's insurance). A particularly fast employment growth is expected in areas such as finance and investment, banking and investment advice, software development and data processing services, health services and management and actuarial consulting.

Companies are increasingly hiring external consulting actuaries to develop their pension and retirement planning programs. Faster-than-average growth is expected in management consulting (particularly in HR consulting, in the health care and retirement planning field). Actuaries will find more roles as financial planning advisors to meet the growing needs of the aging population.

Actuaries are also expected to find more jobs in the banking and investment industries. As financial services—such as insurance firms, commercial banks and financial advisory firms—continue to consolidate, new opportunities will emerge. Analyzing the risks associated with entering a new market with new products or facilities, or merging with an already established company, will require actuarial skills.

## ECONOMIC OUTLOOK FOR ARGENTINA

The time remaining before the 2011 presidential election will likely determine Argentina's long-term economic and political outlook. The loose fiscal policy exhibited by the administration of President Cristina Fernández de Kirchner ahead

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of the election will be unsustainable afterwards.

As domestic funding options are running out (including the private pension fund assets and the central bank's foreign reserves), a return to international capital markets—for the first time since the default in 2001—is what the government hopes to achieve.

The economic situation in Argentina, especially regarding issues of rampant inflation and growing financing needs, is thought by many analysts to possibly become more acute if the current president is reelected next year.

Following the mid-term election defeat in June 2009 in both chambers of Congress, the Kirchners' popularity had dropped and they found themselves in congressional gridlock. However, this year, with the economy witnessing a bounce in activity, there has been an increase in the current government's popularity. Moreover, the opposition is becoming increasingly fragmented and has failed to overcome differences among factions. This has helped President Fernández de Kirchner to overcome last year's drop in popularity, and allowed her government to survive its confrontations with Argentine farmers.

Argentina's economic trajectory beyond next year's presidential election remains uncertain, even with a favorable external climate. The government's ability to finance its spending habits in the near term is a crucial factor for maintaining GDP growth projections for 2010. Nevertheless, it is clear that much will depend on the successful conclusion of Argentina's ongoing debt swap of the defaulted bonds that the government could not settle back in 2005, which would allow Argentina back into international capital markets for the first time in nine years. □

# Ambassador's Corner

The International Section is pleased to advise that Ambassadors have recently been appointed for three more countries: Japan, the Gulf Region, and Israel. In this edition of the ambassador Corner, we are providing biographies and 2010-11 work plans for these new Ambassadors. We will continue featuring articles from all of our ambassadors on their respective countries.

## JAPAN


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**Biography**

Warren Rodericks works in actuarial consulting for Deloitte in Tokyo. Although originally from Canada, he speaks Japanese and has lived in Japan for the past four years. Prior to that, Warren worked in life insurance and actuarial software companies in Canada. He is a Fellow of the Society of Actuaries. As the new SOA Ambassador to Japan, he would like to create opportunities for the 50+ SOA members in Japan to interact with each other, as well as to provide a communication link between the members and the SOA. In addition, he hopes to strengthen the relationship between the SOA and the Institute of Actuaries of Japan (IAJ).

**2010–11 Work Plan**

As Ambassador, I would like to do the following:

1. Reach out to SOA members in Japan
   - Inform them of my ambassador status
   - Ask about member needs and concerns and, acting as liaison with, SOA, also facilitate SOA communications to members
   - Organize member get-togethers if there is interest

2. Provide support for continuing education requirements:
   - Research and inform SOA members of events in Japan and surrounding countries that comply with continuing education requirements
   - If necessary, conduct an informational session on the requirements (since they were implemented recently; many people in Japan were cut off from the dialogue and may not understand the requirements)

3. Provide support for exam centers and examination taking where possible

4. Write one or more international section news articles (many possible topics: Japan's move to IFRS, systemic risk regulation developments in Japan, solvency regulation overhaul in Japan, Japan's aging demographics, etc.)

5. Develop the Japan Web page (if necessary? I have never seen one of these before, but would be happy to create one)

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6. Support any actuarial conferences and seminars in Japan, and help to arrange joint activities with the IAJ with whom I have contacts

7. Assist the Society with any research projects involving Japan

8. Other support as necessary

## GULF REGION

**Shoaib Soofi, FSA**
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**Biography**

Shoaib Soofi has been recently selected as SOA Ambassador for The Gulf Region, covering Saudi Arabia, United Arab Emirates (UAE), Qatar, Bahrain, Kuwait and Oman.

Shoaib has been based in Dubai, UAE since March 2008, working for American Life Insurance Company as their Principal Financial Actuary for Middle East, Africa and South Asia (MEASA) Region. Before that, Shoaib worked in Pakistan in various positions, including assistant general manager in State Life Insurance Corporation of Pakistan, director (insurance) in Securities & Exchange Commission of Pakistan and chief government actuary. Shoaib has over 18 years of experience in life insurance, pension, health insurance and Takaful in the areas of product development, financial reporting, regulations and policy making.

**2010–11 Work Plan**

We, the actuaries in United Arab Emirates, started in May 2008 to have meetings every three to four months in which an actuary gives a presentation on a topic and then we discuss our activities and how to expand them followed by a dinner. Initially, people from UAE attended the gatherings but actuaries from Bahrain and Qatar have also joined. Presentations included topics like communication, role of the appointed actuary, Takaful, enterprise risk management, etc. This has been going well and now we are working on the next steps i.e., organizing ourselves into a formal association. Talks are underway with the Dubai International Financial Centre for registration as the non-profit professional association representing the Actuarial Profession in Gulf.

There are 75-100 members in the Gulf Actuarial Community including students, associates and fellows with probably the highest number in UAE. We have also started compiling a list of actuarial resources in the Gulf Region.

I'm also supervising SOA Exams for about two years as the official supervisor for UAE.

In the future, I plan to:

- Continue with the Gulf Actuarial Meeting at least three times a year. As mentioned, in these meetings we will have a presentation on any topic of mutual interest plus discussion on the actuarial profession and how to expand our activity level. So far, our meetings have been limited to actuaries, but now we have started to involve others. In our last two meetings, the secretary of the Emirates Insurance Association also attended.

- I also plan to give a talk at a university once a year about the actuarial profession. There is good potential for the profession to grow in this region.
- Continue with SOA exam supervision for the UAE.
- Try to arrange an SOA Associate Professionalism Course (APC) in Dubai once a year benefiting students in the Middle East and South Asia.

## ISRAEL

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**Biography**
Eitan Fish is a senior marketing actuary in Swiss Re, Tel Aviv, Israel, responsible for reinsurance product development for life and health business in Israel, Greece, Cyprus and Malta, including pricing, product design, and marketing of reinsurance. Prior to Swiss Re, Eitan worked as a senior actuary for life and pension business in the Office of the Commissioner of Insurance, in Jerusalem, Israel, where he was responsible for the analysis of the government's modifications to the country's pension system and evaluation of insurance companies' submissions of policy and rate filings. Prior to this, Eitan worked at Guardian Life Insurance Company, New York.

**2010-11 Work Plan**
My work plan as an SOA Ambassador for Israel includes:

- Surveying SOA members and exam candidates in Israel to find out what their professional and educational needs are.
- Investigate how the SOA can help its members in Israel in their professional development.
- Identifing CPD needs and opportunities.
- Submiting articles to the SOA International Section newsletter regarding the insurance industry and on the role of actuaries in Israel.
- Developing an informational package and checklist for actuaries considering relocating to Israel. □

# International News **Announcements**

### 8TH REGIONAL SOCIAL SECURITY, PENSION & PROVIDENT FUNDS CONFERENCE

**Beirut, Lebanon**
7 – 9 March 2011

### THE 16TH EAST ASIAN ACTUARIAL CONFERENCE

**Kuala Lumpur, Malaysia, Shangri-la Hotel**
10 – 13 October 2011

### THE CONFERENCE OF CONSULTING ACTUARIES' ANNUAL MEETING

23 – 26 October 2011
For a listing of meetings and seminars cosponsored by the Conference, please visit *www.ccactuaries.org/events/calendar.html.*

### ASPPA

The ASPPA currently conducts a wide variety of conferences focusing on the most current retirement plan topics each year. National and regional conferences offer unique opportunities for participants to exchange views and meet with the top players and decision makers of the pension industry. Following are some key events in **2011.**

**Los Angeles Benefits Conference**
Los Angeles, California, JW Marriott, LA LIVE
12 – 14 January 2011

**NTSAA Annual Conference**
Orlando, Florida, Omni Orlando Resort at Champions Gate
2 – 5 February 2011

**The ASPPA 401(k) SUMMIT**
Las Vegas, Nevada, Caesars Palace
6 – 8 March 2011

**NTSAA 403(b) Compliance Resolution Summit**
Irving, Texas, Westin Dallas Fort Worth Airport
9 – 11 May 2011

**Western Benefits Conference**
Las Vegas, Nevada, Bellagio
24 – 27 July 2011

**ASPPA Annual Conference**
National Harbor, Maryland., Gaylord National Resort & Convention Center
23 – 26 October 2011

### INSTITUTE OF ACTUARIES OF AUSTRALIA UPCOMING EVENTS

**Biennial Convention 2011**
Sydney NSW, Hilton Hotel
10 – 13 April 2011

**International Actuarial Association Upcoming Events**
Council and Committee Meetings
Sydney, Australia
6 – 10 April 2011

### SOCIETY OF ACTUARIES IN IRELAND UPCOMING EVENTS

**Longevity Risk Management**
Alexander Hotel
20 January 2011

**SAI Professionalism Course for New Qualifier**
Druids Glen Resort
10 March 2011

**SAI Annual Convention**
Alexander Hotel
19 May 2011

### ACTUARIAL SOCIETY OF U.K.

**Session Research Events, London**
January, 2011
For more U.K. actuarial events, see *www.actuaries.org.uk/events/calendar* and *www.sias.org.uk/diary.*

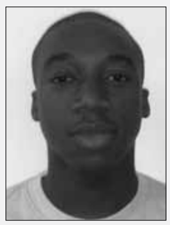
### THE SINGAPORE ACTUARIAL SOCIETY

Annual General Insurance Conference
June 2011.

### THE PACIFIC RIM ACTUARIES' CLUB OF TORONTO

**Annual Meeting and Dinner**
The Metropolitan Hotel, Toronto
1 February 2011
Visit *www.pacificrimactuaries.ca* for details.

Tashai Fung (Jamaica)



Johnathon Craig (Tobago)

## THE ACTUARIAL FOUNDATION AWARDS TWO UNIVERSITY OF WEST INDIES STUDENTS WITH 2010 SCHOLARSHIPS

**SCHAUMBURG, Ill. --** (August 30, 2010) – The Actuarial Foundation is pleased to announce that it has awarded two University of West Indies students with 2010 Caribbean Actuarial Scholarships. Tashai Fung (Jamaica), received $2,500 and Johnathon Craig (Tobago), received $1,500.

## 2010 SOA ANNUAL MEETING IN NEW YORK

From left to right:
Front row: Darryl Wagner, Cathy Lyn, Alycia Slyck, Lina Xu
Back row: Benjamin Marshall, William Horbatt, Michael Lockerman, Genghui Wu, Theo Iaponas, and Alan Cooke

Recent photo of International Section Council members and Council friends.

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# International News