


International News

ISSUE 51 AUGUST 2010

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International News

ISSUE 51 AUGUST 2010

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Editor's Note

By Carl Hansen

We are delighted to announce the winning article for this year's Country Feature Competition. The winner, "The Netherlands: Going Strong After the Financial Crisis," written by Sunil Sen appears in this issue of *International News* on page 44. The second place article, "Indonesia," by Mitchell Wiener (plus some other entries) will appear in the December 2010 issue of *International News*. Thank you to everyone who submitted an article this year. I encourage all readers to start planning for the 2011 competition.

This issue features several articles highlighting activities at the International Congress of Actuaries and related meetings in Cape Town this past March. I hope that some readers were able to attend the Congress in person. If not, Paul Thornton, Tom Herget, and John Robinson give a good flavor of the events. It was an impressive gathering of 1,600 actuaries from over 100 countries. Where else can an actuary from the United States enjoy drinks at the same table as actuaries from Colombia, South Africa, and Sudan? The South Africans were wonderful hosts and Cape Town was a spectacular setting. It will be a hard act to follow when the U.S. actuarial organizations host the 2014 Congress in Washington, DC!

You should notice that we have greatly expanded the "Ambassador's Corner" feature for this issue, with additional news and updates from various countries. The International Section is committed to the SOA's ambassador program as a way of enhancing communication on the local level. *International News* is happy to support these efforts.

Finally, August is the time of year when the SOA asks its membership to vote on the new leadership of the organization. I encourage all readers to participate in this important process (if you have not already done so). □



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Chairperson's Corner

By Darryl Wagner

2010 is in full swing for the International Section! We received several entries to our Country Feature Competition, and the section council has chosen this year's winner. We have had several new ambassador appointments this year, with more in the works. I am excited about this expansion to our ambassador program. Special commendation goes to Alycia Slyck who has recruited eight new ambassadors to the Europe and Africa region! On the education front, we are preparing materials for our Hong Kong financial reporting seminar in late August. Our Hong Kong speakers will again be visiting other countries in the region to meet with their local actuarial communities. Domestically, the two sessions we sponsored at the Life & Annuity Symposium were well received, and we are now working on sessions for the SOA '10 Annual Meeting in New York in addition to planning our annual International Section reception. We hope to see you there! I'd like to thank the section council and the many other volunteers whose hard work makes all these accomplishments possible.

I'd like to touch on a three topics that I believe are important and relevant to our section members.

First, Alan Cooke and I had the privilege of representing the International Section at the Section Chairs meeting in Chicago in late April. This was a great chance to meet the leaders of other sections and discuss ways we can work together. Don Segal, SOA president-elect, challenged the group to "break down the silos" and look for ways to connect the efforts of our sections. This advice is particularly on target for the International Section as our members practice in many areas and benefit from many of the offerings of other sections. The SOA has already begun to expand the delivery of other section materials internationally through webcasts including translated information. Your section council will be exploring ways in which we can further facilitate and aggregate such efforts with the goal of providing our members with easier access to information on topics in which they are interested.

Second, I had the great opportunity in late May to speak at a conference jointly sponsored by the China Association of Actuaries and the SOA's China Region Committee in Beijing on the implementation of new financial reporting requirements enacted in China as of year-end 2009 (new PRC GAAP). The large room in which the conference was held was full with over 230 participants in attendance! I was struck by the reflection of both the size and growth of the

actuarial profession in China, as well as their interest in and contribution to cutting edge topics such as evolving financial reporting requirements. Given the similarity of the new PRC GAAP to the emerging IFRS Phase II requirements, actuaries in other countries who most likely will soon face the implementation of IFRS Phase II will benefit from the experiences of the Chinese companies and actuaries who have implemented the new PRC GAAP. This is a great example of how actuaries globally may benefit from stronger international connections. I would like to thank Sharon Huang, Shirley Shao, and August Chow for their invitation to speak and their kind hospitality.

Third, the SOA has formed an International Membership Strategy Task Force of which I will be serving as chairperson. Over the next several months we will be working to articulate the SOA's international mission and strategy, including better defining areas of focus such as international member services, SOA presence and involvement in other countries, and partnerships with local actuarial associations. This is clearly of importance to international section members, but one of my hopes is that this process will help identify other areas where the SOA can "internationalize," always with the intention to further strengthen and promote the credentials and services the SOA has to offer. I invite you to provide me with your thoughts on this topic, and I look forward to reporting back to you as the work of the task force progresses.

These points come together for me around the topic of connections, as I talked about in our last newsletter. Whether its connection with other sections, connecting with experiences from other countries, or connecting to the SOA strategy, international actuarial connections are vital in our increasing global business community. Let's stay connected! □



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The International Actuarial Association—Moving the Actuarial Profession Forward Internationally

By Paul Thornton

This article is based on a presentation on the Vision, Mission and Strategic Objectives of the International Actuarial Association (IAA) which I gave during the opening of the recent International Congress of Actuaries in Cape Town, and on my concluding remarks given at the closing. Together these provide a good overview of IAA objectives and achievements.

I would like to tell you a little about the IAA and why it matters to every actuary in the world. The IAA was originally formed in 1895, reconstituted in 1998 and restructured in 2010. The IAA has 63 Full Member Associations and 22 Associate Member Associations, representing over 50,000 actuaries in over 100 countries.

To advance the work of the IAA, the council and committees meet twice a year. The most recent meetings in Cape Town attracted nearly 250 representatives of actuarial associations from all over the world.

The Society of Actuaries is heavily involved in the IAA on your behalf and regards it as a vital organisation for the advancement of the profession internationally.

The IAA also has Institutional Members, which include such influential organizations as the International Association of Insurance Supervisors (IAIS), the International Social Security Association (ISSA), the International Accounting Standards Board (IASB) and the International Organisation of Pension Supervisors (IOPS). These are organizations that we work particularly closely with; we are working with other similar organizations towards establishing such a relationship.

MISSION AND VISION

The mission of the IAA is to represent the actuarial profession and promote its role, reputation and recognition in the international domain and to promote professionalism, develop education standards and encourage research, with the active involvement of its member associations and sections, in order to address changing needs.

The vision of the IAA is that the actuarial profession is recognised worldwide as a major player in the decision-making process within the financial services industry, in the area of social protection and in the management of risk, contributing to the well-being of society as a whole.

STRATEGIC OBJECTIVES

Our first strategic objective is about building relations and becoming engaged with the supranational organizations that matter to actuaries. The IAIS, ISSA, IASB and IOPS are particu-

Prevention of future financial crises

**The G 20's
common
principles for
reform:**

- Strengthen transparency and accountability
- Enhance sound regulation
- Promote integrity in financial markets
- Reinforce international co-operation
- Reform international financial institutions

**Actuaries believe
additional
measures are
needed:**

- Introduction of more counter-cyclical regulatory arrangements
- Creation of Country Chief Risk Supervisor role
- Wider use of comprehensive risk management concepts in banks and non-regulated sector
- Improved use of ERM & risk governance



larly key ones, but others include the OECD, the IMF, the ILO and the World Bank, to name but a few.

An example of our agenda is the work that we did following the Global Risk Crisis of 2009. We believe that more widespread use of actuarial approaches throughout the financial sector could assist in the prevention of future financial crises, and we took this message to the Financial Forum and to the regulators in various countries. Most recently, we took our ideas on addressing systemic risk to the IAIS in Basel and have been invited to share our ideas with the Basel Committee on Banking Supervision about introducing actuarial principles into the risk management of banks.

Our second strategic objective is about extending the scientific knowledge and skills of the actuarial profession. The briefest glance at our website www.actuaries.org will reveal a database in which you can access more than 440,000 items of research.

You will also find that we have produced major publications on insurer solvency assessment, measurement of liabilities and, just recently, stochastic modeling. A forthcoming project is a publication on The Determination of Discount Rates for Financial Reporting Purposes.

Here I must mention the role of the sections in the IAA. It is the coming together of these sections that create the Congresses we enjoy

every four years. We hope that we will soon have a section for actuaries working in Enterprise Risk Management.

The sections are for individual actuaries to join, and I would go further and say that individual actuaries SHOULD join, if they want to achieve their full career potential.

Our third strategic objective is about common standards of actuarial education, common principles of professionalism and standards of actuarial practice. The current focus of education activity is on Enterprise Risk Management. Last year, fourteen (14) of our Full Member Associations signed the Global CERA Treaty. This was a key first step in the process for each to offer the Chartered Enterprise Risk Analyst (CERA) credential.

In the area of actuarial standards we are working hard, both on introducing model standards and seeking to encourage convergence of the various standards that currently exist around the world.

Our fourth strategic objective is about the development of the actuarial profession in developing countries. We have been making prodigious efforts to assist new associations to come to be born.

Our fifth strategic objective is about providing a forum for discussion among actuaries and actuarial associations throughout the world. The Congresses, in Cape Town this year, in Washington, D.C. in 2014 and in Berlin in 2018 do exactly that!

Strategic Objective 1

Identify, establish, and maintain relationships with key supranational audiences and provide them with actuarial input to improve the soundness of decisions being made on important issues with a global impact.

Strategic Objective 2

Facilitate the use and expansion of the scientific knowledge and skills of the actuarial profession, including beyond the traditional areas of actuarial practice, to help enhance the scope, availability, and quality of actuarial services offered by individual members of its member associations.

Strategic Objective 3

Establish, maintain and promote common standards of actuarial education, common principles of professionalism and model standards of actuarial practice for use by member associations worldwide.

Sections of the International Association of Actuaries:

ASTIN	Actuarial Studies in Non-life insurance
IACA	International Association of Consulting Actuaries
AFIR	Actuarial Approach for Financial Risks
IAAHS	IAA Health Section
PBSS	Pensions, Benefits and Social Security
AWB	Actuaries Without Borders
LIFE	Life Section

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Strategic Objective 4

Support the development, organization and promotion of the actuarial profession in areas of the world in which it is not present or is not fully developed.

Strategic Objective 5

Provide a forum for discussion among actuaries and actuarial associations throughout the world.

It is quite a challenge to attempt any summing up of a Congress with such a diverse range of topics. Instead I will highlight what, for me, was the single most important direction to come out of this particular Congress, and one which has the greatest strategic importance for the global actuarial profession—the contribution we can and should make to managing the risks of the world’s financial systems.

Helen Zille, the premier of the Western Cape who hosted the Congress welcome event at her State home on the evening of March 7, asked “Why did the Actuaries not see the Financial Crisis coming?” Dr. Mamphela Ramphele, a former managing director of the World Bank and a prominent participant in national debate about the future of South Africa, repeated that question in her address at the closing session and told us to be more assertive.

A number of the sessions addressed this question.

First, Paul Embrecht’s keynote address on *Lessons Learned and Implications of the Financial Markets Crisis* made us all feel perhaps we could, as a profession, have done much more to head off the financial crisis, had we only realized the power of our thinking. He quoted L.C. Rogers, who said “The problem is not that mathematics was used by the banking industry, the problem is that it was abused,” and showed a slide where he listed the 10 weaknesses we should have learnt about by 2006, before this latest crisis began:

1. (I)liquidity
2. Leverage (investments banks 30+:1)
3. Model uncertainty
4. Non-normality, Extreme events
5. Regulatory arbitrage

6. Off-balance positions, OTC (shadow banking)
 7. Greed, Non-rationality, Human factors
 8. Short-term financing of long-term risks
 9. Accounting deficiencies
 10. Global financial networks, IT vulnerability
- Etc ... etc ...

Next, in a session on the global ERM designation for actuaries, Harry Panjer described the way in which the actuarial profession is moving forward into the broader area of Enterprise Risk Management. In the discussion which followed, the panel suggested that the unique selling point of the actuarial profession compared with other risk managers is our use of professional judgment, not a slavish belief in the latest mathematical models. I would add to that the reliance that users of actuaries can place on our strong Code of Professional Ethics. I was also struck by a slide which Harry borrowed from Jim MacGinnitie, with 10 things that “Actuaries Understand,” namely:

1. Risks seldom are normally distributed.
2. Models need to be recalibrated as new data become available.
3. ‘Models drift’ occurs as use of models influences market behaviour
4. ‘Spirals’ occur. Slicing, dicing and repackaging risk multiple times can lead to the ultimate holder of risk not understanding and not managing its risk exposure.
5. The challenges of valuation where no deep market exists.
6. The importance of the long-term view in making short-term decisions.
7. The ‘actuarial control cycle’ as a framework for updating and overall management of models.
8. The importance of transparency of producing reports.

The International Actuarial Association provides a vital vehicle for coordinating worldwide engagement.

9. Professional standards as guideposts for professional practice.
10. The quasi-fiduciary role they play in the lives of those who rely on them.
(Source: "Actuaries Would Have Made a Difference," W. James MacGinnitie, *Beyond Risk*, Fall-Winter 2009)

Yoshihiro Kawai, secretary general of the International Association of Insurance Supervisors, confirmed the vital role of actuaries in helping the IAIS address the problems of systemic risk in the global insurance industry. As if to reinforce the message, I received a letter from the chairman of the IAIS, Peter Braümüller, while we were in Cape Town, emphasizing their strong need to have our input on the issue of financial stability, and our assistance with developing their new supervisory framework.

In the same building as the IAIS is the Bank for International Settlements in Basel. The Basel Committee on Banking Supervision, which is based there, proposes to introduce a countercyclical capital framework, and the IAA has been asked to explain how actuaries deal with expected loss provisioning allowing for the frequency and severity of losses. In other words, to explain to them about how the well established actuarial methodology which already exists for dealing with this in the insurance sector could be applied in banking.

If ever there was an opportunity for the global actuarial profession, this is it!

The IAA believes that more widespread use of actuarial approaches throughout the financial sector could assist in the prevention of future financial crises. We must not delude ourselves that we can in fact prevent future financial crises, but we can certainly do a huge amount to help prevent them.

In addition, the sections also arrange colloquia around the world in the years between the International Congresses. Plans are still being finalized, but for 2011 you can look forward to an ASTIN/AFIR Colloquium in Madrid, a LIFE Section Colloquium linked into the U.K. Annual Insurance Convention, a Pensions, Benefits, Social Security Section (PBSS) Colloquium in Edinburgh, IACA colloquia linked to the annual conferences of the Association of Consulting Actuaries in the United Kingdom and with the Conference of Consulting Actuaries in the United States, and an IAA Health Section Colloquium linked to the Global Conference of Actuaries in India.

In 2012 you can choose between a joint IACA/IAAHS/PBSS Colloquium, planned to be in Hong Kong, and a joint LIFE/AFIR/ASTIN Colloquium in Mexico from October 1-4.

I hope by now that I have convinced you that the International Actuarial Association provides a vital vehicle for coordinating worldwide engagement for actuaries.

In 2008, the IAA published a Decennial Report highlighting its first 10 years as a restructured organization representing the actuarial profession globally. The IAA's first Annual Report for the year 2009 was published and distributed at the Congress in March 2010. It is available on the IAA website at www.actuaries.org. □

SOA 2010

Annual Meeting & Exhibit

Oct. 17-20, 2010
Hilton New York
New York, NY



Join us at the **SOA 2010 Annual Meeting & Exhibit: Fresh ideas. Innovative seminars.** Top-notch speakers. Plus—oodles of networking opportunities. We're heading to New York—a city on the move. Vibrant. Electric. And we plan to infuse that energy into this year's meeting.

Be sure to sign up for these informative sessions:

Session 58

IFRS: The Future of Accounting for Insurance and its Implications

The release by the IASB in June of an exposure draft is making the prospect of a new accounting standard for insurance contracts appear likely in the not-too-distant future. Actuaries and accountants who had long taken a "wait and see" attitude to insurance accounting under IFRS are now taking notice of the potential implications of a new standard. Separately, the Financial Reporting Section of the SOA has sponsored research into the potential implications of revised IFRS accounting standards on insurance products.

Session 107

International Section Dinner

Start your night on the town with the International Section, the International Association of Black Actuaries, the Caribbean Actuarial Association and the Chinese Actuarial Club (CAC). All are welcome to join us for fun, a delicious dinner and global actuarial news. Enjoy a banquet dinner, networking and other fun events at one of the city's great Chinese restaurants. Come to see old friends and make plenty of new ones from all over the world.

Be there—in the city that doesn't sleep
Learn more at www.soaannualmeeting.org.



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Good Hope from Cape Town, South Africa: Three Actuarial Meetings—IAIS, IAA and ICA

By Tom Herget

Three actuarial meetings were held back-to-back-to-back in March 2010. Having unsuccessfully retired, I decided to attend. I enjoyed seeing old friends and meeting new colleagues. I followed the life company and solvency tracks of the meetings and I'll share with you samples of interesting presentations, observations and conversations.

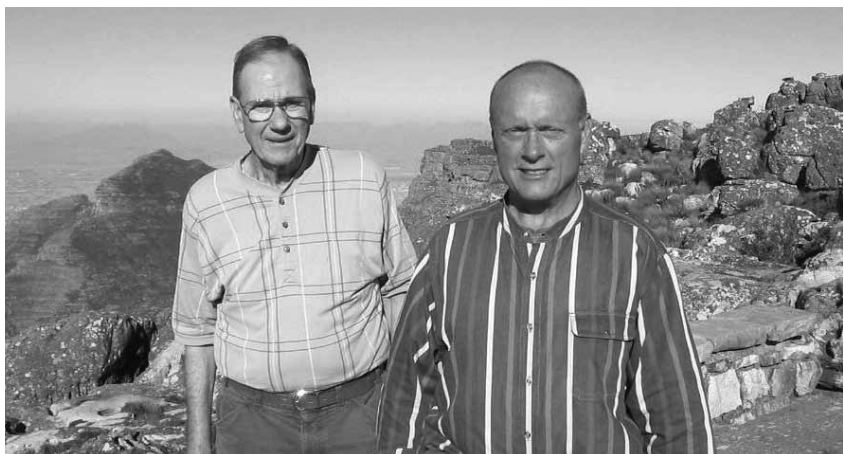
TUESDAY MARCH 2 THROUGH THURSDAY MARCH 4

The International Association of Insurance Supervisors (IAIS) is an association of the regulators responsible for regulation of insurance in nearly 100 jurisdictions around the world. Its Solvency and Actuarial Issues Subcommittee met for three days. Attending were 30 regulators representing 20 countries and 10 observers representing five countries. The leadership was very hospitable and welcomed observers' comments. The meeting was conducted in English where nearly every person had his or her own dialect.

The chair of this subcommittee is Rob Curtis of the United Kingdom; the IAIS executive director, John Maroney, is based in Switzerland.

The days were spent wordsmithing papers, developing stances, looking ahead, discussing the environment and developing a near-term timetable. Acronyms abounded—for example: an ICP is an Insurance Core Principle and the FSB is the Financial Stability Board, created by the G-20 in response to the financial crisis.

One morning was spent brainstorming how to respond to the IAIS Executive Committee's three year plan to introduce ComFrame (Common Framework for supervising internationally ac-



Pictured L-R: Burt Jay and Tom Herget

tive companies). It was felt some insurance regulation could fall through the cracks or couldn't be effectively supervised without international awareness and cooperation. ComFrame is designed to facilitate this.

Four IAA members attended and led discussions on capital adequacy, ERM, internal models and investments. Standards and guidelines by the IAIS are already established in these areas, but the IAA is just finishing some additional work products on ERM & internal models.

The World Bank and the International Monetary Fund jointly sponsor the Financial Sector Assessment Program (FSAP) whose scope includes insurance regulation. They are in the process now of evaluating the United States. They are using the IAIS's ICPs for measurement. They have already reviewed other countries such as Switzerland and Canada in years past.

One U.S. life company (well along the way in using internal models) can run its capital model

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Pictured L-R: Henny and Vincentius Wilianto

in two days. A French life company (new to the process) takes two months to complete. Worldwide, insurance is 10 percent of the size of the banking industry. The banking industry continues to have more influential spokespeople than the insurers do.

IAA actuaries presented papers and fielded questions on stress testing, internal models and Comprehensive Actuarial Risk (CARE).

THURSDAY MARCH 4 THROUGH SATURDAY MARCH 6

The International Actuarial Association (IAA) held its bi-annual meeting.

I attended one of five insurance accounting committee meetings. Talk about passion ... talk about diversity... this committee has it all. Members from all over the world express their views on what the IASB is deliberating for its insurance contracts project. I was impressed by the articulation of the participants. There is clearly more than one right answer and more than one viewpoint on the many issues. I don't envy the chair who will try to develop consensus opinions.

What is the best way to get a viewpoint across to the IASB? Is it a four page letter with ample technical support or a one page tabloid-style plea? The IAA, the CIA and the AAA all wrestle with this issue.

Should the IAA say that risk margins need more clarification ... or leave the issue alone so the actuaries are in a better position to provide guidance (as opposed to the accountants)? It is possible that companies will have to go back to look at profits at issue for all existing policies in order to generate an opening balance residual margin.

The South African leg of the AAA tennis open was played on cracked and cratered courts. Chicago led New York 6-4, 4-4 before exhaustion claimed the combatants. This contest will be continued in Vienna.

At the Insurance Regulation Solvency Subcommittee session, the status of papers, their purpose and progress were discussed. Reverse stress testing means under what scenarios could I lose a billion currency units? For internal models, not all outcomes result in dollar outlays—results could be data backup, second home office, de-concentration, etc. Scenarios reveal severity but not frequency.

A systemic risk paper will be written. Just what is the definition of systemic risk—a total failure of a market or just enough failure to be significantly disruptive? The paper will look at collective behavior. It is generally thought that insurers are not causes of, but perhaps carriers of, systemic risk. If credit default swaps are insurance, then insurers would be causes of systemic risk.

European bankers or bank regulators are attempting to quantify systemic risk; their report is due December 2010.

Solvency II will likely be effective January 1, 2013. Solvency II will be the capital framework for all of Europe's 5,000 insurers in 27 countries. CEIOPS will evolve to European Insurance and Occupational Pension Authority (EIOPA). Groupe Consultatif is the association of European actuarial associations that has been providing input to CEIOPS and its Solvency II project.

Significant Solvency II open issues are the discount rate (its liquidity premium component) and the classification of liabilities by degree of liquidity.

Japan will be introducing market consistent valuations in two stages. Mexico will be introducing (modified for Mexican practices) Solvency II.

Further research is needed on the risk margin cost of capital method, in particular the use of six percent—why it is appropriate and how it should vary.

A systemic risk regulator needs to be international in scope.

Six buses took us to the group dinner at Stellenbosch vineyard. It was lots of fun. I tried the antelope, hoping I would be able to run faster. Unfortunately, it was negated by the ox tail.

On the last morning, the Regulation, Solvency, Reinsurance, Accounting and Enterprise/Financial Risk Management Committees held a joint meeting to discuss each committee's current work. It was shared that banks will be exploring the possible use of actuarial techniques to determine loan loss reserves and we are invited to comment on this. Also, a 600 page book on stochastic modeling (mostly case studies) will be released soon.

Because we didn't explicitly discuss mortality tables, many participants addressed this oversight by taking the cable car or hiking up to Table Mountain, which overlooks not only Cape Town itself but the Atlantic and Indian oceans.

SUNDAY MARCH 7 THROUGH FRIDAY MARCH 12

The International Congress of Actuaries' welcome reception was held at the ministerial palace. It was an excellent venue for networking;

calamari for all. I met many friends there, including four who returned intact from a safari.

Sixteen hundred delegates and 200 guests, representing over 100 countries, attended this conference. The keynote speaker was Yoshihiro Kawai, secretary general of IAIS. The last three years of huge damage caused by mismanagement of risks now brings us significant opportunities. How can we be ready for the next crisis? The G-20 sent a message to regulators—don't focus solely on the institutions; get the big picture. Financial stability should be part of the mandate; develop tools; regulate systemic risks.

Systemic risks cause an impact to all or part of the financial system; systemic risks have the potential to generate serious negative consequences for the economy. Three criteria identify the severity of systemic risk: size, degree of substitutability and strength of interconnectiveness.

The world needs to have coordinated regulation of the 45 international firms that account for 50 percent of the global insurance premiums. G-20 wants cross-sectional cooperation and no regulatory arbitrage.

Caption: Participants listen to a presentation at the ICA 2010 conference in Cape Town, South Africa.



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Enterprise Risk Management (ERM) was a popular topic. ERM identifies where to focus corporate attention and where to spend corporate capital. Regulators can use ERM to determine who to pay attention to. ERM can explain to shareholders how you are adding value. Risk can have five views—eyes closed, quick look, one eye, two eyes and 360 degrees. Bad money drives out good. Some of the causes of the 2008 crisis were: unbalanced or lacking governance, forgotten liquidity risk, compliant authorities and misaligned incentive structures.

Interest rates had significantly differing components within two years. In 2008, a six percent rate comprised five percent risk-free and one percent credit spread. A year later, the rate was seven percent, but only two percent risk-free and five percent was the spread. What should policyholders be credited?

One session addressed model uncertainty and ERM. A British lord said, regarding the financial crisis, that mathematical sophistication provided false assurance. Risk is randomness with knowable probabilities; uncertainty is randomness with unknowable probabilities. The complexity of our models is difficult for boards and management to understand. Underlying assumptions and limitations must be communicated.

A pricing model deals with a subset of risks and calibrates parameters to today's market prices. A risk management model deals with a wider range of risks and calibrates to historical data. A risk measurement model incorporates irrationality and inefficiencies, such as overconfidence, information asymmetry and negative risk premiums.

Think of a bell curve representing likely profits/losses. The regulator is concerned about the left side. The investor is concerned about the middle. The rating agency is concerned about the left and middle. The CEO with stock options is concerned about the far right.

The actuarial profession needs to be more visible to the purchasers of risk management services. The keynote speaker addressed lessons we should have learned from earlier financial crises. By 2006 we should have been wary of illiquidity, leverage, model uncertainty, non-normality, regulatory arbitrage, off-balance sheet, greed, accounting deficiencies and global dependencies. I guess our memories were short. As 2008 approached, shouldn't we have been wondering where all the credit risk had gone?

Now, we learn from 2008, that regulation was outdated or missing; industry structures were complex; accounting rules were not transparent; more disclosures were needed; and there was a global imbalance of cash flows. Why did capital disappear? Stock market drop, corporate bond spreads increased, volatility increased, and yield on risk-free assets dropped. How did insurers react? We de-risked the asset (switching to classes requiring less capital); de-risked the liability (dropped features or lowered volume); increased capitalization (but that is expensive).

Is efficient market theory still relevant? It relies on rational behavior and symmetrical information. Financial models fell short; volatility was triple what was expected; tails were not fat enough.

When risks are correlated, no amount of diversification will eliminate risk. Moral hazards appeared—securitization (careless underwriting since most or all risk was passed on) and government intervention (Why worry? They will bail us out).

Here are some comments I overheard at cocktails and in the halls. I don't necessarily agree with most of this, but it's always good to know what other people are thinking. The United States, while once leading with its RBC and asset adequacy analysis, now lags behind the world regarding regulatory solvency determination. American solvency analysis has



Pictured L-R: Roger Smith, Shirley Shao and Jackie Smith

plateaued for 20 years while the rest of the world caught up and moved ahead. The state insurance commissioners are more interested in their political advancement than in the regulation of insurance. The United States will soon be part of the Pacific Basin.

There was considerable discussion of Actuarial Standards of Practice. Should there be a single set of actuarial standards that apply to all actuaries world-wide? Or, should standards be prepared as models for each country to adapt? Or, another option, should each country develop its own standards reflecting its practices, products and environment? For U.S. actuaries, if there are differing American and international standards, you would probably need to meet both if you are working for a company that is international.

On the last day, six colleagues presented on capital modeling. For mortality, age-dependent adjustments are more appropriate than across-the-board shocks. Risk margins, as envisioned by the IASB, can have up to 30 percent variation between proposed methods and defensible assumption choices. Cost of capital of six percent is not overly conservative. The popular assumption that Solvency Capital Requirement (SCR) is proportional to future liabilities is not adequate in general; ratios typically increase.

Solvency II's pillar one requirement is the sum of best estimate reserve, margin for cost of options and 99.5 percent one year Value At Risk. So, only once in every 200 years would a company not be able to meet liabilities over a one year period.

Pillars two and three address risks not contemplated by pillar one. The speaker postulated four possibilities of events to consider:

1. The ability to hedge or trade at any time may not exist.

2. Humans are not independent of each other.
3. Humans are bad at assessing risks.
4. Internal models themselves, if comparable across companies, could be a cause of systemic risk.

Most companies hold far more capital than SCR. Pricing is usually done on SCR and not the level the company actually intends to hold. Why can't reporting actuaries present a range of values? A single value will never be what exactly happens; it is just an indicator.

A government minister delivered the congress's closing remarks. She avowed that the actuary should be the Queen profession of financial services. The actuary must be more assertive and speak with thicker voice. What were actuaries doing when rating agencies continued to bless financial weapons of mass destruction with AAA rankings? Actuaries shouldn't look at just insurance and pensions; they should take it to all financial services.

CONCLUSION

These three conferences were a great place to meet people and exchange ideas. You will hear most spoken languages including 100 different dialects of English. It's a good place to ascertain what the world is doing as well as to influence it.

Speeches and presentations can be found on www.ICA2010.com. Doing an encore will be a challenge, but the five American actuarial organizations will step up to host the ICA 2014 meeting in Washington, D.C. Plan to come. You don't need to be a scientist to benefit from this meeting. □



John Robinson, FSA, is chief actuary at Capital Region BOCES in Albany, N.Y. he can be reached at jrobinson@gw.neric.org or 518.464.3949. He is the current president of the International Association of Black Actuaries (IABA).

IABA Makes Connections with Actuaries in Africa and the IAA

By John Robinson

The International Association of Black Actuaries (IABA) has a mission to increase the number of black actuaries in North America. Currently, our membership is just north of 100. We are supported by an advisory group of twelve actuarial employers and three actuarial organizations: the Society of Actuaries, the Casualty Actuarial Society and the Actuarial Foundation. Membership in IABA is open to any person interested in supporting the organization's mission.

The Association of South African Black Actuarial Professionals (ASABA) has a similar mission in South Africa and the Actuarial Society of South Africa is fully supportive of this mission. The current president elect of the Actuarial Society of South Africa is Themba Gamedze, the country's first black fellow and the first president of ASABA.

Wanting to bridge the gap between these two organizations and our sister continent Africa, I contacted current ASABA president Lusani Mulaudzi last September and proposed a mini-conference on March 6, to precede the International Congress of Actuaries (ICA) 2010 held in Cape Town, South Africa on the 7-12. My vision was to invite the leaders of all the African and Caribbean countries who might be attending the ICA. Lusani agreed that ASABA would host it, and we were off and running. The conference theme was **A Conference to Promote Diversity in the Actuarial Profession Worldwide.**

Contacting the leaders proved to be a bit of a challenge; first we had to locate them and then we tried to elicit a response and found that calling worked better than e-mail, but cell

phone calls to Namibia can get a bit pricey! However, we eventually issued invitations to actuarial leaders in Benin, Botswana, Côte d'Ivoire, Egypt, Ghana, Kenya, Morocco, Mauritius, Nigeria, Namibia, Senegal, South Africa, Tanzania and Uganda, as well as the Caribbean Actuarial Association. In addition, the International Actuarial Association (IAA), which runs the ICA, sent two representatives. The result was an impressive 17 attendees from 14 organizations.

The primary goal of the Diversity Conference was to explore ways the respective organizations could help each other. Each organization was expected to leave the conference with a to do list of either bi-lateral or multi-lateral projects. This gathering was organized as a whole-day affair. To kick-off the day, each organization introduced itself, its history and its goals, and then we discussed ways to assist each other. Throughout the day, as we worked together to understand each others needs and challenges, there was a real spirit of cooperation amongst the participants. We came to a mutual consensus and all organizations present signed a Memorandum of Understanding, indicating our intention to continue to support each other's missions. After the meetings, there was a dinner to which the Actuarial Science students at two nearby universities were invited. College students don't pass up free food, so it was well attended. Dinner speakers were Jeffrey Johnson of the IABA and Themba Gamedze. Jeffery highlighted the respect for the actuarial professionals by telling an anecdote about having a fellow-passenger on the flight request his autograph, after learning he was an actuary. Themba emphasized the value of diversity in the profession and in society generally.



Front row: Lusani Mulaudzi (South Africa), Soshan Sobramoney (South Africa), John Robinson (USA), Kamal Benchekroun (Morocco), Basil Reekie (South Africa), Cathy Lyn (Jamaica), Kgodiso Mokonyane (South Africa)

Second row: Jean Hendricks (South Africa), Odwa Madolo (South Africa), Adrian Vugs (Namibia), Eugene Woodard (USA), Astor Duggan (Jamaica), Guillaume Moussa (Benin), St. Elmo Whyte (Jamaica)

Here's some feedback and comments we received about the Conference:

From Lusani Mulaudzi, ASABA president:

ASABA hosted the Diversity Conference on March 6, 2010 at the Sanlam Offices in Bellville. This was a major success, although some of the delegates did not manage to be with us for the whole conference. The discussions were fruitful and have culminated in ASABA taking a more active role in developing the actuarial profession in Africa. ASABA has decided to establish an International Mentorship program with a focus on African countries—Kenya being the first beneficiary. We intend to raise funds from local and international organizations to support this initiative.

From Charles Mpundu, Actuarial Society of Zambia president:

The Diversity Conference held in Cape Town in March 2010 under the auspices of IABA couldn't have come at a better time for the Actuarial Society of Zambia (ASZ) which at that time was only two weeks old. The interventions, encouragement and networking that the conference presented were just great and provided a strong foundation for us on which to build diverse and sustainable actuarial outreach programs. The proceedings and exchange of experiences that took place have helped us in focusing and prioritizing initiatives to enable us to contribute effectively to the development of the actuarial profession in Zambia and elsewhere. Arising out of the interactions, we are already following up on areas of local capacity building as well as how best we could benefit from the expertise provided by IABA and IAA through the Actuaries Without Borders and other similar

programs. As ASZ, we cannot thank IABA and IAA sufficiently for making it possible for me and two other colleagues to attend this important conference and the ICA2010 that followed. ASZ and its members are appreciative and will remain indebted to the two institutions for their support and on our part we will remain committed to play an active role in ensuring the diversity and growth of the actuarial profession.

Faith Mpatwa, Actuarial Society of Tanzania vice president:

I thoroughly enjoyed the Diversity Conference as it provided a common forum for discussing challenges and experiences facing the diverse Actuarial societies worldwide. It was evident that most of these societies face similar issues and the conference provided a common ground to address these. I saw a picture of how the societies in other countries achieved their success stories. This was quite beneficial in particular to the Actuarial Society of Tanzania (AST). Being at infancy stage, the AST drew key ideas how other societies overcame similar issues we face as a society. With this knowledge I took back the lessons and expect our society to achieve all our key objectives by implementing the ideas gathered at the conference.

This conference was largely a successful event and we plan to continue with our purpose. We have our eye on the future and have already started discussions with Bob Conger, who represented the IAA at the Diversity Conference and serves as the chairperson for the Organizing Committee of ICA 2014, to be held in Washington, D.C.

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IABA Makes Connections ... | from Page 15

ORGANIZATIONS IN ATTENDANCE

Association of South African Black Actuarial Professionals (ASABA, host)
 Actuarial Society of Tanzania
 Actuarial Society of Zambia
 ASSA Africa Interaction Committee (AIC)
 Caribbean Actuarial Association (CAA)
 Ecole Supérieure d'Actuariat (ESA), Benin
 ASSA Sub-committee for Africa
 ASSA Transformation Committee
 IAA Advice and Assistance Committee
 IAA Fund
 International Association of Black Actuaries (IABA)
 South African Actuarial Development Program (SAADP)
 Society of Actuaries of Namibia
 Association Marocaine des Actuaire (AMA)
 Institute of Statistics and Applied Economics (ISNEA), Morocco

The IABA will be working with Bob in two areas:

1. Identifying black actuaries interested in supporting the IAA's mission of promoting the actuarial profession in Africa, by travelling to Africa to give presentations on the role and value of actuaries;
2. For ICA 2014,
 - (a) scheduling another Diversity Conference to precede the ICA;
 - (b) introducing a professional development session about Diversity during the ICA; and
 - (c) identifying a charitable project in the D.C. area.

I look forward to what we will accomplish in the future and would like to extend a great thank you to Lusani and ASABA for hosting the first Diversity Conference, and to all who attended. I hope they got at least half as much out of as I did. I would also like to recognize and thank our sponsors: Sanlam Group of South Africa, the IAA Fund and the Conference of Consulting Actuaries.

Our leadership of the Diversity Conference has established IABA as an international leader in diversity in the actuarial profession, which is part of our vision. Our initiative to "increase awareness" has now gone global—we are now known and respected by the leadership of the IAA and we will be expected to continue to play a key role in the important area of diversity. □

SOA 2010 Elections Let your voice be heard!

SOA 2010 elections are just around the corner. Online voting will be open 24 hours a day from Aug. 9 through Sept. 3 at 5:00 p.m. Central Daylight Time.

Visit SOA.org/elections to learn more about candidates for SOA president-elect, vice presidents, board of directors and section council positions—and to vote.

Have questions? E-mail elections@soa.org

Ambassador's Corner

The International Section is pleased to advise that ambassadors have recently been appointed for eight more countries: Cyprus, Egypt, Germany, Greece, India, the Netherlands, the United Kingdom and Pakistan. In this edition of the Ambassador's Corner we are providing biographies and 2010-11 work plans for these new Ambassadors. (We have appointed co-ambassadors for the United Kingdom because of the large SOA membership in that country.) In future Ambassador's Corners we will be featuring articles from these and our other Ambassadors on their respective countries.

CYPRUS



Christos Patsalides,
FSA, CERA, FCA
Group Chief Actuary and Risk
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Biography

Christos studied at Georgia State University in Atlanta, in the United States where he received an undergraduate and a master's degree in actuarial science. He was on a full Fulbright Foundation scholarship during his undergraduate studies and a C.V. Starr scholarship during his graduate studies. He has been living in Cyprus since 1993 when he started his career as a consulting actuary, mostly involved with pensions and social security valuations. In 1994, he moved on to the life insurance industry. Until mid 2009 he worked in three different insurance companies as manager, Insurance Operations and Actuarial Services, general manager and managing director. Since May 2009 Christos has worked as group chief actuary and risk manager with Nest Investments (Holdings) Ltd, a multinational group with insurance (largely

property and casualty), reinsurance and other holdings in a number of countries. His current role largely involves the development and/or enhancement of actuarial services throughout the group and the establishment of formal ERM frameworks.

He is a founding member of the Cyprus Association of Actuaries where he served in the executive council as secretary, vice president and currently as president.

He is married with three children.

2010-11 Work Plan

- Provide assistance to the Society of Actuaries (SOA) in communications with members in Cyprus
- Present to the local actuarial association the ambassador program and the SOA educational and qualification system
- Assist new SOA members as they arrive in Cyprus
- Present the actuarial profession, the Society of Actuaries, the SOA educational program and the ambassador program to University of Cyprus students
- Contact and meet periodically with SOA members in Cyprus to discuss issues and areas of concern. Help identify appropriate continuing professional development (CPD) opportunities.
- Collaborate with local actuarial association to develop training programs or actuarial" meeting events" with support from the SOA that could meet CPD requirements.
- Develop checklist for actuaries considering relocation to Cyprus.

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EGYPT



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Biography

Mr. MF Amer started his career as a teacher at Cairo University and after about four years moved to the United States to pursue an actuarial career. He worked as an actuary for over 50 years throughout the United States, Europe and Egypt. He is currently retired, but continues to lecture at the University in Cairo and keeps busy as the president for the Egyptian Society of Actuaries. As SOA ambassador to Egypt, he aims to get the Egyptian Society of Actuaries more involved in the continuing professional development (CPD) program by hosting monthly meetings and plans to arrange a local conference to report on the recent mortality study.

2010-11 Work Plan

- Set up a website for the Egyptian Society of Actuaries
- Prepare a report on the current status and regulations of insurance in Egypt
- Arrange a local conference to present recent mortality study and possible similar study in other Arab countries
- Coordinate with the Society of Actuaries, the Casualty Actuarial Association and the Institute of Actuaries
- Work to have the Egyptian Society of Actuaries more involved in the CPD program by introducing monthly gatherings

GERMANY



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Biography

For the last 19 years, Dr. Dirk Nieder has been working in the offices of Gen Re, which is the global brand under which Kölnische Rückversicherung (Cologne Re) operates its international life and health reinsurance business as part of the Berkshire Hathaway Group. After having spent the first 28 years of his life predominantly in Cologne, he had the opportunity to gain exposure to a variety of international markets, notably in Asia, through two overseas assignments to Singapore and Tokyo. Whilst working in the reinsurance domain, the focus of Dr. Nieder's work has been related to the development and pricing of innovative life and health insurance products, e.g., critical illness and long-term care insurance products. For example, he initiated the first critical illness claims survey in Asia—a survey which today covers more than 100 million life years of exposure and a participation in Asian markets varying from 76 percent to 99 percent.

Today, he is based in Cologne and leads the life and health activities of Gen Re in Japan and Korea.

Having studied for fellowship outside of the United States, Dr. Nieder is aware of the challenges with which students based in international markets are faced. He has hence, for example, organised seminars which allowed students to earn professional development credits to attain fellowship.

2010-11 Work Plan

- Assist in establishing exam centers as needed.
- Contact members of SOA in Germany. Identify needs, develop a list of concerns, and follow up with the International Section or SOA.
- Contact leaders of actuarial associations and clubs in Germany:
 - o Discuss feasibility of joint research projects.
 - o Discuss feasibility of participation in local working parties: Bringing in experience gathered by the SOA and feeding back results into respective SOA sections.
 - o Facilitate exchange of information (e.g., the German Actuarial Society considers the introduction of a qualification in line with CERA; impact of Solvency 2 in Germany).
- Set up country web page for Germany on the SOA website.
- Write an article for inclusion in *International News* (topic: tbd).
- Write year-end report on developments in Germany.

GREECE



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Biography

Ioannis Chatzivasiloglou currently works for the Greek Private Insurance Supervisory Committee (PISC), as head of the actuarial department. He is responsible for the actuarial supervision of insurance companies operating in Greece. Ioannis was appointed

by the PISC to participate as a national expert in the meetings of the working groups of the European Council, for the negotiations of Solvency II directive at EU level and to participate in the periodic meetings of the Members of Committee of the European Insurance Supervisors (CEIOPS).

Prior to joining PISC in 2007, he worked for an employee benefits consulting firm, as a consulting actuary, for eight years.

Ioannis holds a BSc in Mathematics from the University of Athens and an MSc in Decision Sciences (major in Financial Engineering) from the Athens University of Economics and Business. He is a designated fellow of the Hellenic Actuarial Society (FHAS), associate of the Society of Actuaries (ASA) and member of the American Academy of Actuaries (MAAA).

2010-11 Work Plan

His ambassadorship goals include the strengthening of the link between the Greek members with Society of Actuaries and establishing an active two-way communication for issues of common interest.

INDIA



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Biography

Sanjay is currently head of pricing and product development for RGA in India. He began his career in 1996 at Hewitt as a pension consultant and since joining RGA in 1999 has been

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involved in the areas of pricing, product development, valuation, financial reporting and risk management. Before moving to India in 2008, he was helping RGA develop its Continental European markets out of RGA's office in Toronto, Canada.

Sanjay has a master's degree from the University of Toronto. He is also a fellow of the Society of Actuaries and a member of the American Academy of Actuaries.

2010-11 Work Plan

- Assist the Society of Actuaries in communications with members and correspondents in India.
- Assist in the coordination of SOA examinations.
- Write one article per year for inclusion in *International News*.
- Create a country Web page for India on the SOA website.
- Assist in the logistics for official visits to the region by members of the board of the SOA.

THE NETHERLANDS



Sunil Sen, ASA

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Biography

Sunil Sen is a consultant with Towers Watson based out of the Netherlands. He specializes in the areas of ERM, Solvency II, and merger and acquisitions. He is an accredited actuary and is

an alumnus from the University of Texas. His working and living experience includes many countries across the world, most predominately in the United States and Europe.

He has lived in the Netherlands since the beginning of 2008 and speaks Dutch, Spanish, and English.

2010-11 Work Plan

Work Plan Objectives

- Increase the awareness of the SOA within the Netherlands
- Create an actuarial community with existing SOA members
- Assist new actuaries emigrating from the United States to The Netherlands.
- Work with Actuarieel Genootschap to facilitate communication with the United States and attempt to gain equivalency for U.S. actuaries within Dutch system.

Work Plan

- Give two presentations annually at the Actuarieel Instituut and The Amsterdam University
- Contact SOA members and host a social event for SOA members to increase communication between SOA members and awareness concerning the Ambassador Program.
- Coordinate with the AG Instituut to create a permanent exam center in The Netherlands.
- Write an article over the Dutch market for the *International News* (topic to be decided in conjunction with editorial board).
- Write year-end reports concerning developments and progress.

PAKISTAN



Naveed Shahid

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Biography

Naveed graduated from the University of Karachi with a master's degree (First Class) in Applied Mathematics. He has 15 years of varied experience including actuarial, life insurance operations, group benefits and investments in the life insurance sector. He started his career in 1996 as an actuarial student at the largest life insurance company in Pakistan. He worked there for seven years specializing in actuarial valuations and product pricing. He has been working with EFU Life Assurance Ltd, the largest private sector life insurance company in Pakistan since 2003 and has worked at various senior positions. He is currently heading the Investments Department. Naveed is also teaching at the Actuarial Science & Risk Management Program at the University of Karachi.

2010- 11 Work Plan

- Increase awareness about the actuarial profession and SOA in Pakistan
- Give talks about Actuarial Profession and SOA at various educational institutions
- Assist SOA in communications with its members
- Write article about the development of actuarial profession in Pakistan and its role in the development of insurance sector. Will try to write another article about the activities and role of Pakistan Society of Actuaries
- Work closely with Pakistan Society of Actuaries to identify the needs of actuaries in Pakistan in general and members of SOA in specific
- Create and maintain the country Web page on Pakistan on the SOA website

THE UNITED KINGDOM



Nick Dexter

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Biography

Nick Dexter is a fellow of the Institute of Actuaries (FIA), fellow of the Society of Actuaries (FSA), fellow of the Actuarial Society of South Africa (FASSA) and associate of the Institute of Actuaries of India. Since joining KPMG in 1991, Nick has been the life actuary controlling the actuarial audit of a number of clients.

Working as the lead actuarial audit partner for certain insurance companies and working on consulting engagements with U.S. colleagues has led to an active interest in developments in the United States and becoming a member of the Society of Actuaries (SOA). Nick has been active in consulting on risk and capital management, including advising companies on their risk management frameworks and risk measurement, including Economic Capital/ICA reviews and advice on Asset Liability Management.

Nick is experienced in leading financial reporting and risk management engagements including UK GAAP, US GAAP, Economic Capital, IFRS, EEV/MCEV and is currently leading Solvency II engagements in the United Kingdom and overseas for a number of companies. His experience includes work in United Kingdom, continental Europe, South Africa and the United States, as well as several Asian countries such as Hong Kong, India, Indonesia, Korea, Malaysia, Singapore and Taiwan.

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He is a member of the U.K. actuarial profession's Life Practice Executive Committee a member of the Validation Committee and regularly lectures on the profession's Professionalism courses.

2010-11 Work Plan

Proposed goals include:

- Establishing a U.K. Web page on the SOA website
- Assisting the SOA in coordinating jointly sponsored research projects
- Assisting the SOA in communications with members and Correspondents in the United Kingdom
- Establishing a close link with the U.K. profession (e.g., in relation to CERA)
- Assist in identifying appropriate Continuing professional development (CPD) opportunities
- Writing year-end report on developments in the United Kingdom more generally



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Biography

Anna is an associate of the Society of Actuaries (ASA). She holds a BMath Honours Actuarial Science from University of Waterloo and a BBA Honours Finance from Wilfrid Laurier University.

Since joining Towers Watson International (previously Towers Perrin Global Consulting Group) in London in 2008, Anna has been actively involved in a variety of projects. Her main area of focus is year-end pension

accounting consolidations for multi-nationals; other projects include expatriate plan design and management, pension plan closure and change, total rewards benchmarking and studies, and pooling and captive feasibility and implementation.

Anna has experience working in Canada (Toronto, Ottawa, Waterloo, Vancouver), the United States (New York), and the United Kingdom (London). While attending University of Waterloo, Anna interned at the Government of Canada, Royal & SunAlliance, Maplesoft, Mercer HR Consulting, and Towers Perrin.

Anna is currently studying to complete exams for fellowship with the Society of Actuaries. The lack of an SOA network for those in the United Kingdom studying for SOA exams prompted her to become an ambassador.

2010-11 Work Plan

- Assist the SOA in communicating with members and correspondents in the United Kingdom
- Reach out to SOA members in the United Kingdom still taking SOA exams—establish additional exam centres if necessary
- Communicate with U.K. members to determine points of interest and concerns; depending on number of members and interest, organize members to discuss
- Establish and maintain a U.K. Web page on the SOA website
- Write for the *International News*. □



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Rich de Haan, FSA, FIA, MAAA, is principal at Ernst & Young LLP in New York, N.Y. He can be reached at rich.dehaan@ey.com.

International Section 2009 Survey

By Rich de Haan

INTRODUCTION

In late 2009, the International Section Council conducted a survey seeking feedback from our members as well as non-members on the activities of the section as well as suggestions on how to deliver good service and better interact with our members. This followed a similar survey we conducted in 2008. We were encouraged by the volume of responses and the thoughtful input we received. The council incorporated the feedback we received from you into our strategic plan for 2010. In this article, we share with you the results from the survey as well as areas the council is focusing on in 2010.

SURVEY RESULTS

We received 568 responses from around the globe (compared to 353 responses last year) with over half of those from outside North America. Chart 1 shows the breakdown of survey responses by location of those responding. We were encouraged to see the strong response from over 22 different countries. The right hand graph on chart 1 shows a breakdown of international responses where we had more than 10 respondents.

MEMBERSHIP DRIVE

Whilst the survey was primarily targeted at section members, we were also keen to hear from non-members, and in particular to find out what would encourage them to become members. Chart 2 shows the breakdown of responses by section membership with around 40 percent of responses coming from non-members (compared to 30 percent responses from non-members last year). Of the non-members responding, the majority

Chart 1: Survey Responses by Location

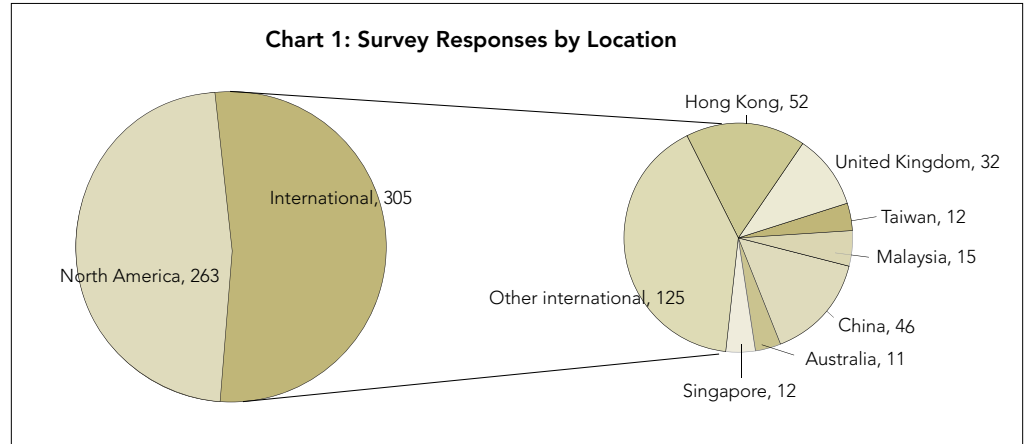
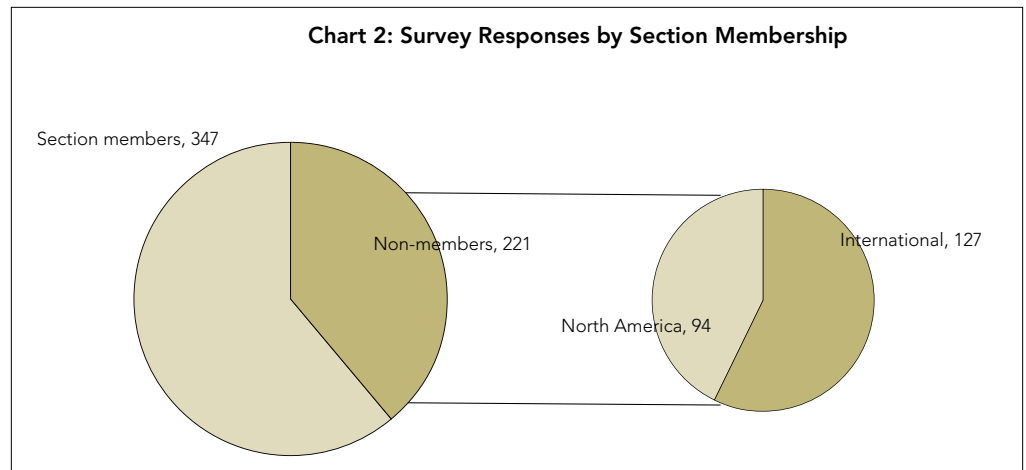


Chart 2: Survey Responses by Section Membership



came from outside North America and their willingness to participate indicates demand for overseas services and opportunities to broaden our base internationally.

We asked non-members why they were not members of the section yet. The primary two reasons indicated were lack of awareness of the section (31 percent) and the fact that employers do not reimburse section membership fees (24 percent), similar to last year's results. To increase international membership size, the council is addressing this feedback by increasing accountability and funding to our Ambassador program and providing a one-year membership fee waiver to actuarial students working in developing countries.

SEMINARS AND MEETINGS

The section organized and co-sponsored domestic and international seminars and meetings, with our US GAAP seminars being the most well known. Our survey asked what additional topics would be of interest to North American and international respondents. The international respondents indicated that the top three areas of interest would be, in order of priority, International Financial Reporting Standards, Economic Capital and Solvency II and Enterprise Risk Management. The top three areas of interest for North American respondents were the same in the same order of priority. Last year's survey results also indicated that the top three areas of interest were International Financial Reporting Standards, Economic Capital and Solvency II and Enterprise Risk Management. We are discussing these findings with the Financial Reporting and Risk Management sections and are looking to incorporating some of these topics in the seminar schedule for this year.

AMBASSADOR PROGRAM

The section has an Ambassador Program where local ambassadors are appointed by council based on their involvement in the local actuarial community and their desire to develop a stronger bond between the SOA and the local actuarial community. The survey provided us with a chance to listen directly to overseas actuaries on how they feel about the program.

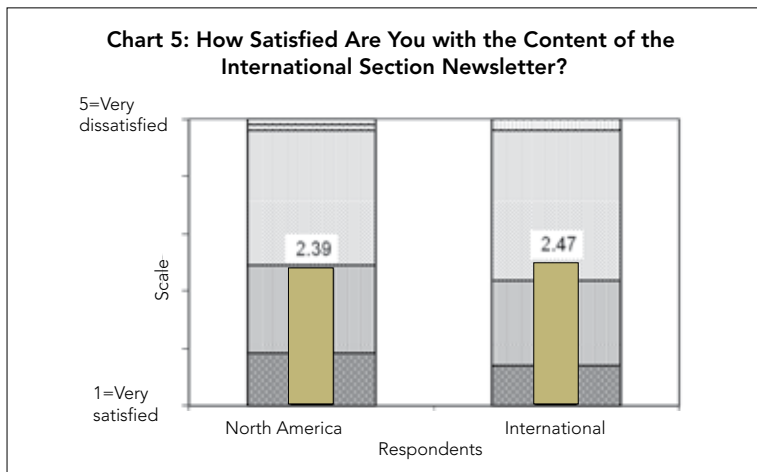
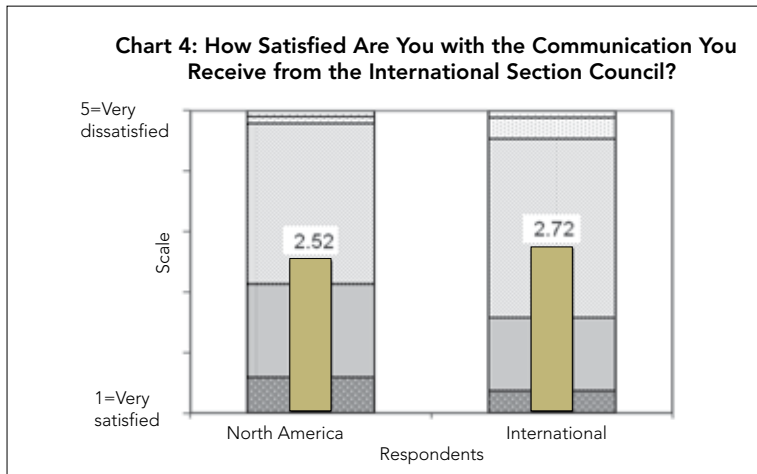
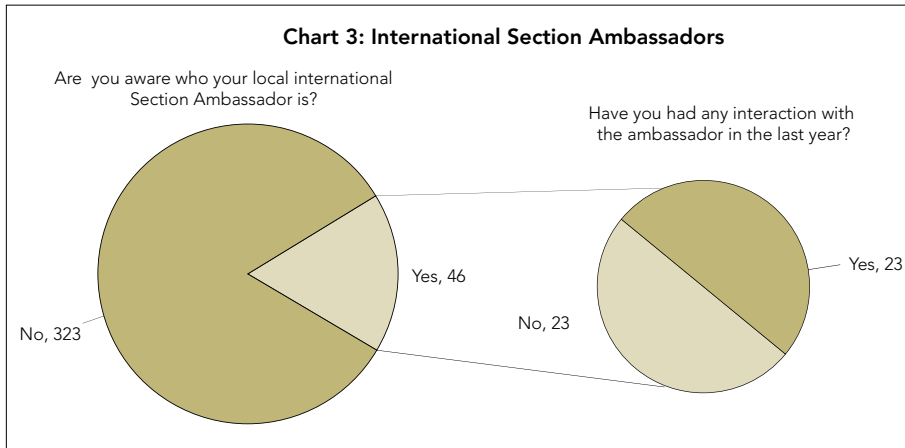
The survey results showed (see chart 3) that a small portion of respondents are aware of who their local ambassador is. Of the respondents who are aware of their local ambassador, around 50 percent of them had recent interaction with their ambassador, a significant improvement when compared to 20 percent last year. Although we acknowledge the geographical limitations and the natural challenges in operating this program, our council is committed in improving the score.

Section leadership has undertaken the following initiatives over the year and will continue in 2010:

- Revisit who our local ambassadors are, re-establish their commitment to the role, and finding replacement when appropriate
- Identify countries where we have substantial membership without a local ambassador and seek a suitable candidate
- Position ambassador coordinators who are members of section council to have more regular contact with local ambassadors and provide them support to actively communicate with local members

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- Provide, where appropriate, financial support to ambassadors to facilitate networking events

We have already approved funding requests for networking events from several new ambassadors which is a positive sign. With maintained discipline, focus on larger and then smaller countries, and nomination of suitable candidates, the program will deliver on its desired objectives.

To find out more about the Ambassador Program and local networking events, visit the international section page of the SOA homepage. If you have any comments or suggestions, please reach out to any members on section council.

COMMUNICATION

The Society of Actuaries and the International Section leadership wanted to know whether members received sufficient communication from the section. Keeping in mind that location impacts the response, the survey responses fall within our expectation. Members located in North America and closer to the SOA head office experienced more interaction and communication when compared to overseas members (see chart 4).

In addition to the section’s primary membership communication tool, the section newsletter council agreed to look into creative ways to communicate with our members. A number of suggestions were discussed and we are working with the SOA to determine what is both practical and implementable.

SECTION NEWSLETTER

The International Section newsletter has been the primary communication tool used with our members. Contributors and editors have invested a considerable amount of effort in making it

a great newsletter. We wanted to obtain feedback from our members on how they rate the articles and content of the newsletter. We are very encouraged by the feedback you provided. On a scale of one being excellent to five being poor, Chart 5 shows that North American respondents gave the newsletter an average rating of 2.39 (very similar to 2.35 last year), and international respondents gave an average rating of 2.47 (improved from 2.72 last year).

We will continue to bring you news from the actuarial community around the world, and as we did last year, we will continue with the very successful country feature article competition.

SUMMARY

Section leadership was very encouraged by the feedback obtained through the survey. We want to thank all of you that provided input and we hope that you will obtain value from the actions we are taking to improve your section membership experience. □

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An Interview with Shiraz Jetha from Actuaries Without Borders

By Susan Robertson

The last decade has seen increasing internationalism of the actuarial bodies around the world (even as exams become more localised) and the increasing profile of the International Actuarial Association. With our own international focus here at Quantum Selection and some involvement in less developed countries, we are especially interested in the activities of Actuaries Without Borders (AWB) and Shiraz Jetha, joint vice chairman of the committee of AWB, has kindly taken time out of his holiday weekend to tell us more about what they are up to...

WHAT IS AWB?

Established in November 2003, AWB is a section within the International Actuarial Association (IAA). Its mission is described as “to make available actuarial services on a temporary basis, to assist in the development of social security, pensions, insurance, investments, or health care infrastructures. It focuses on countries in which there is an emerging actuarial profession and insufficient resources to fund such services.”

Shiraz sees this mission as a chance to ensure that projects in less advantaged places are not short changed due to lack of the resources to hire expensive and scarce actuarial skills.

After an early community-based micro-insurance initiative in Puné, India, AWB only really picked up project momentum from 2008, when Shiraz himself volunteered to go on very short notice to deliver a series of lectures on ERM in Kazakhstan. He tells us more about this rewarding experience in the December 2008 issue of *International News*.

Other projects have included very positively received lectures at the University of Kenya towards the end of last year, teaching projects in Azerbaijan and a repeat visit to Kazakhstan. A total of five projects are planned for 2010, including a session in Nairobi arising from follow up interest after the Kenya project. The repeat trip to Kazakhstan involved four actuaries, two from the United States, one from China and another from New Zealand—Shiraz finds it particularly heartening to be able to source actuaries from opposite ends of the world.

Currently, AWB has around 300 members, from 33 countries, with around half this membership coming from Australia, Canada, France, South Africa, the United Kingdom and the United States. Members do not need to be qualified actuaries. When a new project is announced, the committee seeks volunteers from within its membership. A selection process takes place to find the volunteers most appropriately matched to the project requirements and also one or two *reserves*. While all expenses are paid, the volunteer would typically not receive any payment for their services. Periods of volunteering have tended to be short, perhaps one or maybe even two weeks, but there is also time spent on preparation before the trip is taken. AWB does expect longer projects to occur from time to time.

WHAT DOES IT TAKE TO BE A GOOD VOLUNTEER?

Shiraz feels that a good volunteer would give his or her very best to the project, in the same ways as when dealing with an employer or client in a normal work situation, recognising that intellectual property rights belong to the receivers of the services.

AWB provides benefits to not just the requestors of services and volunteer actuaries, but perhaps even the entire profession, in terms of raising the profile of actuaries and building the industry in less developed locations.

He goes on to say that a typical volunteer does not need to be some hardy traveller accustomed to crossing war torn regions, but he or she will have an open mind, be flexible and prepared to make an effort. Creativity is important too, for example, being able to come up with ideas to cross a language barrier (and having a little fun at the same time). Given the short time of each project, preparation is key. So, if you can manage this much, an expedition with AWB might just bring out your latent traveller instinct!

Aside from volunteering, members can contribute by making the availability of AWB services known to those concerns that could benefit by accessing these services. They can also help with support work and documentation, improving processes within AWB and increasing the reach in terms of sourcing volunteers on short notice.

WHY VOLUNTEER TO HELP AWB?

Personal growth is top of the list for Shiraz and the other volunteering actuaries who have provided feedback. Shiraz also points out that AWB provides benefits to not just the requestors of services and volunteer actuaries, but perhaps even the entire profession, in terms of raising the profile of actuaries and building the industry in less developed locations as volunteers practice and showcase the profession. The providers of funds also benefit and an effort is made to provide a win-win-win solution for all key stakeholders.

From a career perspective (after all that's what we do!), volunteering can broaden your network, not only within AWB, but with actuarial and other professionals in different countries. It provides insight into potential future markets

and allows you to view some things from an entirely different perspective, particularly in view of today's globalisation.

Your current employer may also view your volunteering in a positive way, irrespective of whether your organization is global in operation or not. Shiraz observes that when you take an assignment outside your comfort zone, you are making a strong statement about yourself.

WHERE TO FROM HERE FOR ACTUARIES WITHOUT BORDERS?

The AWB committee would like to see the membership grow and also plan to improve the efficiency of internal processes. They are enthusiastic about sourcing new projects and welcome requests, for example, from insurance regulators, government ministries, local actuarial bodies, universities or even private industry in developing economies—really anywhere that lacks local actuarial expertise.



Shiraz Jetha

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OK, we admit, Actuaries Without Borders may not be quite as glamorous as *Médecins Sans Frontières*, but Shiraz points out it provides the actuarial profession with a means to contribute to facilitating growth and development in third world and other developing economies, in a sense improving the quality of life in those environments and perhaps saving lives in the process. All in all, he finds it a wonderful collaboration, encompassing geographical and technical diversity.

You can find more about Actuaries Without Borders at the Actuaries Without Borders section of the International Actuarial Association website and also in an article by Shiraz in the March 2009 edition of *Contingencies*. For more detail on Shiraz's volunteer trip to Kazakhstan, see page 16 of the December 2008 issue of *International News*.

If you have any further questions, do not hesitate to contact Shiraz (s.jethaa@gmail.com) or any other relevant committee members at the e-mail addresses provided on AWB website.

Shiraz Jetha, FSA, CERA, MAAA, is an actuary at the Office of Insurance Commissioner in Olympia, Wash. and co-vice chair of Actuaries Without Borders. In addition to his work for OIC Shiraz also assists organizations in multi-disciplinary projects involving actuarial work on a voluntary basis—recent examples of which involve a locally based health care program design, funding and monitoring project and a feasibility study for AKDN on Microinsurance in Kabul, Afghanistan. □



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Combined Investment and Funding The Holy Grail?

By Norbert Fullerton

Not long ago it was acceptable for defined benefit (DB) pension scheme trustees to consider funding and investment solutions separately. Typically, pension fund trustees spend a lot of time with their actuary discussing assumptions and finalising a triennial valuation. After the valuation, they might review the fund's investment strategy and, just maybe, alter their portfolio. Often, they realised that any changes to the investment strategy would have to be small, to avoid invalidating the valuation results and agreed funding plan. While there was often a desire to reduce investment risk, there was generally no appetite to reopen the funding debate. So, the sponsor and trustees shook hands and waited for three years to repeat this process.

Those days are now gone. Rising deficits, weakened company covenants and a more risky investment world have led trustees and sponsors to look for ways to manage the finances of their pension funds more effectively.

Some sponsors in the United Kingdom and North America have made tough decisions such as closing their private (corporate) DB pension funds to new members and reviewing the design of future benefits. While this reduces future risks and costs, many realise that there is still a large 'legacy' built up that has to be carefully managed.

Many sponsors and pension fund trustees say they have found the "Holy Grail." They now integrate their funding and investment decisions while at the same time take account of the strength of the sponsor's covenant. This way, they say, all parties can better understand the risks facing the pension fund and make holistic funding and investment decisions. In practice,

this means that pension fund trustees and sponsors should only agree to a funding plan with full knowledge of the amount of risk required to achieve it.

THE POWER OF INTEGRATION

Corporate pension fund trustees and sponsors often have different views on how pension funds should be invested and funded. What is important, however, is that both parties should agree to run their pension funds with a long-term business plan, in a similar way to other big organisations.

Applying an integrated approach provides a robust and informed framework, placing all parties in a strong position when negotiating a combined funding, investment and covenant package. Handling negotiations well is very important for any sponsor or trustee group because the outcome directly affects benefit security and the sponsor's cost of providing future pension benefits.

This approach also helps to develop a clear map or journey plan of how the funding position and investment strategy might evolve over time. Certainly, no one answer fits all when it comes to finding ways to reduce risks of rising deficits or sponsors' costs. However, this approach leads to greater clarity when choosing appropriate actions, including:

- **Investment** – for example, switching from growth to liability-matching assets, diversifying growth assets and using derivative instruments (such as swaps) to better hedge interest rates and inflation.

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- **Funding** – set prudent funding targets and agree a robust deficit recovery plan that is reasonably affordable by the sponsor.
- **Covenant** – identify appropriate arrangements for improving the sponsor covenant, such as escrow accounts, parent company guarantees and so on.

- **Dynamic risk management** – avoid losses that could compromise the sponsor’s business, or look for attractive opportunities to lock into good outcomes when the fund is ahead of its journey plan.
- **Liability management** – such as, changing future benefits, trivially commuting members’ benefits or carrying out early retirement exercises.
- **Longevity risk management** – for example, purchasing annuities or using longevity swaps.

Figure 1: The Benefits of the Integrated Funding and Investment Approach.

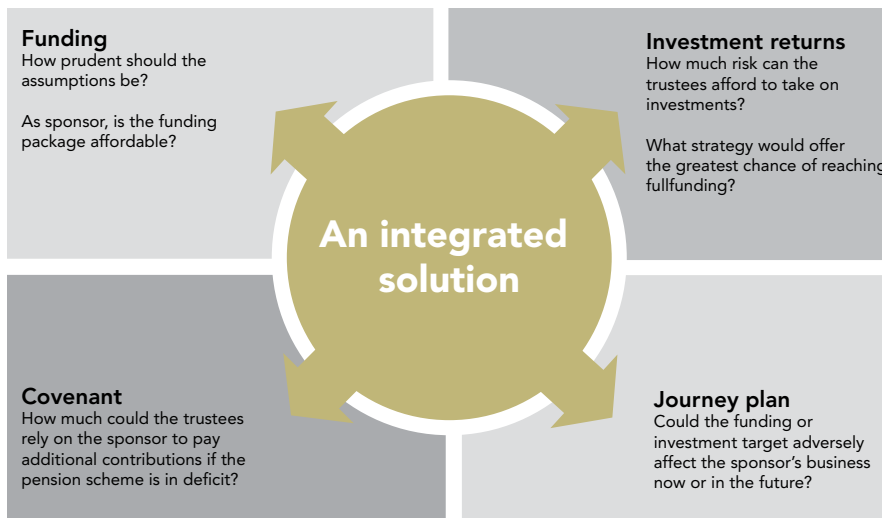
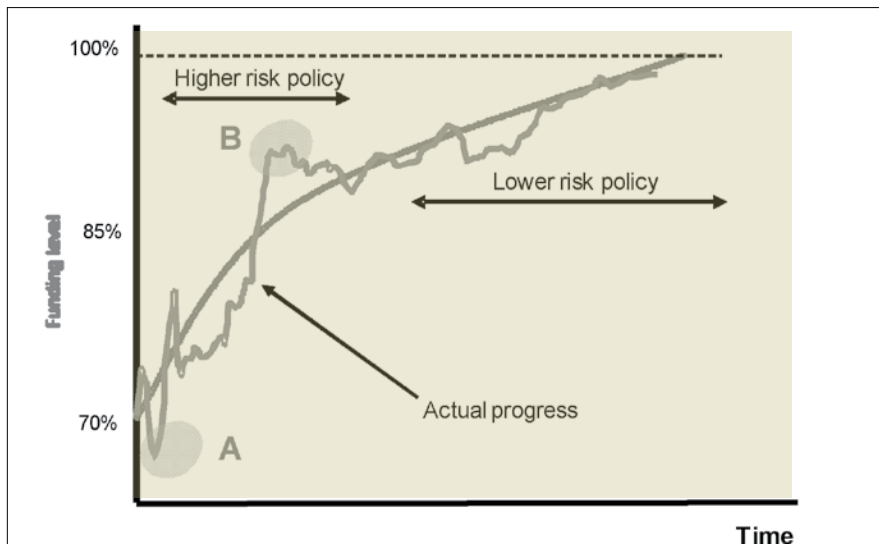


Figure 2: Consider decisions along the journey plan, monitor and take action.



FINDING THE RIGHT PACKAGE

A DB pension fund’s deficit can be considered a debt due from the sponsor. Therefore, pension fund trustees should take account of the quality of the sponsor’s covenant (the ability and willingness to support the fund) when making funding and investment decisions.

Sponsors, on the other hand, have competing demands and constraints on their capital and cash flow. It is a high priority, therefore, for them to agree with DB pension fund trustees a recovery plan, technical provisions and investment strategy that result in reasonably affordable contributions, both now and over time.

As shown in figure 1, considering financing, investment and the covenant together enables trustees and sponsors to decide on:

- how much investment risk they could take now and in the future
- the degree of prudence they should apply to their valuation assumptions
- a reasonable time to recover any deficits
- the level of contributions that are affordable, and
- a framework for designing a journey plan.

“...the journey plan should include a strategy for how to react if events turn out materially better or worse than expected.”

HOW COULD THIS WORK IN PRACTICE?

First, pension fund trustees and sponsors need to determine the level of funding they are ultimately targeting. With many DB pension funds running huge deficits, closed to new members and, in some cases, future accrual, many trustees and sponsors are targeting a point when their pension funds will no longer need to rely on high investment returns or the sponsor's capital resources.

Having defined this target, a range of suitable packages of investment return targets and sponsor contributions could then be analysed. Stochastic models, where appropriate, can then provide the parties with a greater understanding of the possible variability of funding levels over time, the timescales needed to reach full funding, and the probability of significant increases to sponsor contributions in the future.

Once pension fund trustees and their sponsor agree a suitable package, they have begun a journey (see figure 2). This journey should be monitored, with the parties regularly keeping track of how the pension fund develops over time. This may include regular updates of the financial position, the level of risk in the investment portfolio, the strength of the company's covenant, and so on.

At a basic level, a journey plan involves setting the level of contributions and investment returns required at the outset to achieve the desired funding target. However, the journey plan should also include a strategy for how to react if events turn out materially better or worse than expected. If the pension fund is **ahead** of the journey plan (point B), then there may be opportunities to choose from a range of de-risking solutions and still achieve the long-term objectives.

If the fund falls **behind** the journey plan (point A), this raises a number of questions. For example, at what point would an increased pension fund deficit have a detrimental impact on the sponsor's business and what protection might be needed to prevent this? At what point, if there were a deficit and the sponsor became insolvent, would the pension fund trustees not be able to recover enough money after the sponsor pays its creditors?

WHAT NEXT?

If you have an upcoming funding valuation, or opportunity to review sponsor contributions or the fund's investments, it would be worthwhile adopting an integrated approach outlined above. Doing this will ensure you make informed decisions relating to the funding assumptions, investment strategy, a deficit recovery plan, and the design of a journey plan; in other words, you will achieve the pension fund's crucial objectives in an effective and efficient manner. □



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Deferred Annuity Impacts of New Brazilian Mortality Tables

By Celina da Costa Silva, Geraldo de Mello Junior, and Michael W. Witt

Since the stabilization of the Brazilian economy with the implementation of the Real Plan in 1994, the deferred annuity market has grown, on average, about 30 percent per year, measured by total assets. Similar to deferred annuities in the United States and other countries, deferred annuities in Brazil offer annuitization benefits to provide lifetime income following the savings period. However, in their short history, the deferred annuities in Brazil have experienced significantly higher annuitization election percentages. As the annuitization benefits are defined at issue of the deferred annuity (using a mortality table and a defined interest rate), there is significant risk for insurers as mortality continues to improve. Further, the only tables available for determining the benefits were tables based on U.S. experience. The first generation of deferred annuities included a benefit based on the a-1949 annuitant table, and recent years have seen the market offer benefits based on the 1983 IAM or Annuity 2000 tables. Until recently, a mortality table based on the insured population in Brazil had never been developed. This article will examine the development of the new annuitant mortality table, and explore the current and future effects of this table.

In 2007, the groups that represent insurance companies in Brazil (FENASEG and FENAPREVI) proposed the development of mortality tables that represent the populations of annuitants and those with life insurance. To accomplish this, they contracted the Federal University of Rio de Janeiro (UFRJ), a leading research center for statistics and actuarial science

in Brazil. Mortality experience was provided by 23 companies, representing about 95 percent of the market, and the university was responsible for constructing the tables (BR-EMS 2010). Separate tables were developed for the annuitant populations, and for those with life insurance coverage, segregated by sex.

The BR-EMS 2010 tables were built with data from 2004 to 2006, with total person-years of exposures averaging about 19 million per year for males and 13 million for females. A total of about 114,000 deaths were included, and these deaths were cross-referenced with government systems and statistics to confirm the data.

In constructing the tables, UFRJ used the Heligman & Pollard method.¹ This model combines the mortality impacts of three distinct patterns—infant mortality, a “hump” for young adult mortality (primarily for accident-related deaths), and normal aging mortality. Each pattern has several parameters that can be changed to influence the shape, slope, and level of each piece. UFRJ used the raw mortality data to estimate the parameters of the Heligman & Pollard formula via non-linear regression tools.

Because of the relative immaturity of the Brazilian market, the data was somewhat scarce at older ages, making the calculation of mortality rates at older ages a little more art than science. The current plan is to repeat this study (and create new tables) every five years, thereby utilizing larger data sets and providing the industry with current experience.

¹ Heligman, Larry & Pollard, J. H. (1980). The Age Pattern of Mortality. *Readings in Population Research Methodology* v.2: pp. 97-104.

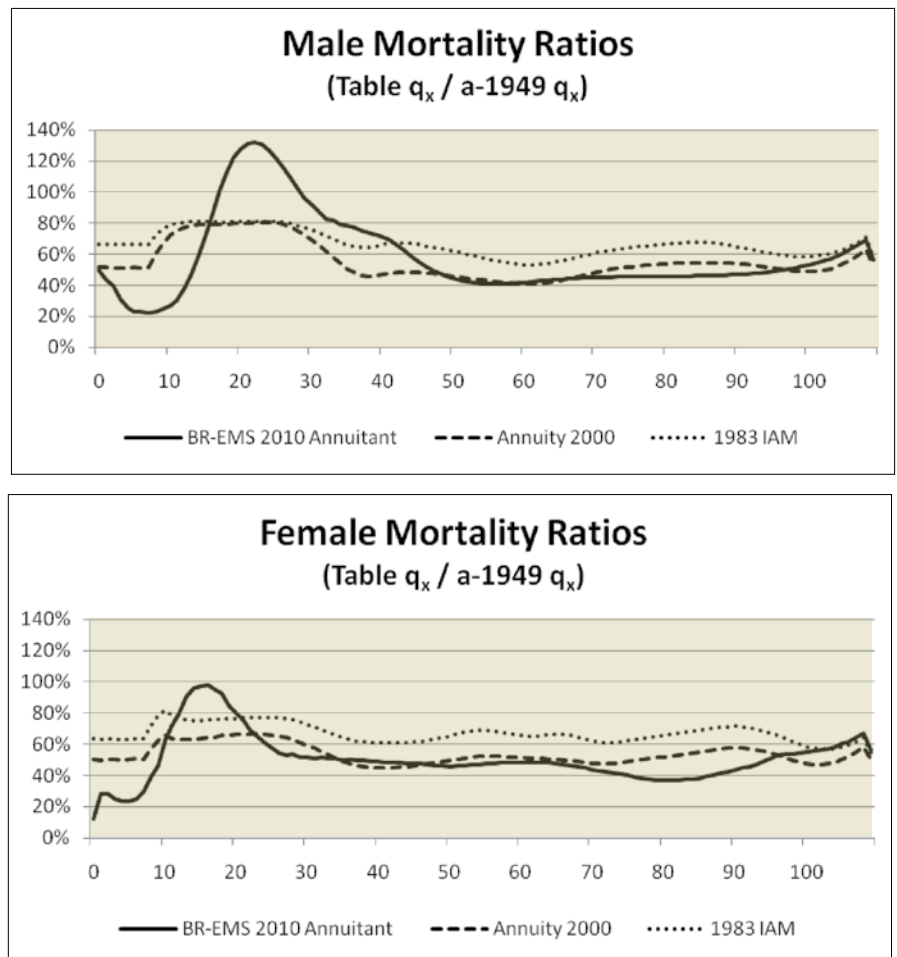
To provide some context for the impact that the new tables will have for Brazilian insurance companies, the graphs in Figure 1 compare the two most recent U.S. tables (the 1983 IAM and Annuity 2000) and the BR-EMS 2010 annuitant table. The rates are presented as a ratio to the a-1949 mortality table to better visualize the differences.

For both males and females, the BR-EMS 2010 annuitant tables track fairly close to the Annuity 2000 tables until about age 65 (excluding early ages, which have little relevance for annuities). Between ages 65 and 95, the BR-EMS 2010 annuitant tables have rates that are lower than the Annuity 2000 tables (with females significantly lower), before approximating the Annuity 2000 tables at very advanced ages.

In quantifying the differences, it is also useful to examine the annuity factors calculated from the different tables. The charts in Figure 2 show the annuity-immediate factors for 2010 issues, for males and females with issue ages between 65 and 85. The factors were calculated using the a-1949, 1983 IAM, Annuity 2000 (with and without G Scale improvement), and the BR-EMS 2010 annuitant tables, all at an interest rate of 3.0 percent. In the case of the improved table, improvement was assumed since 2000 and continuing in the future.

For both the male and female tables, the annuity factors using the BR-EMS 2010 annuitant tables fall between the unimproved and improved Annuity 2000 tables at age 65. As the issue ages increase, the BR-EMS 2010 annuitant tables approach the improved tables (and surpass the improved tables for some female issue ages).

Figure 1: Male and Female Mortality Ratios

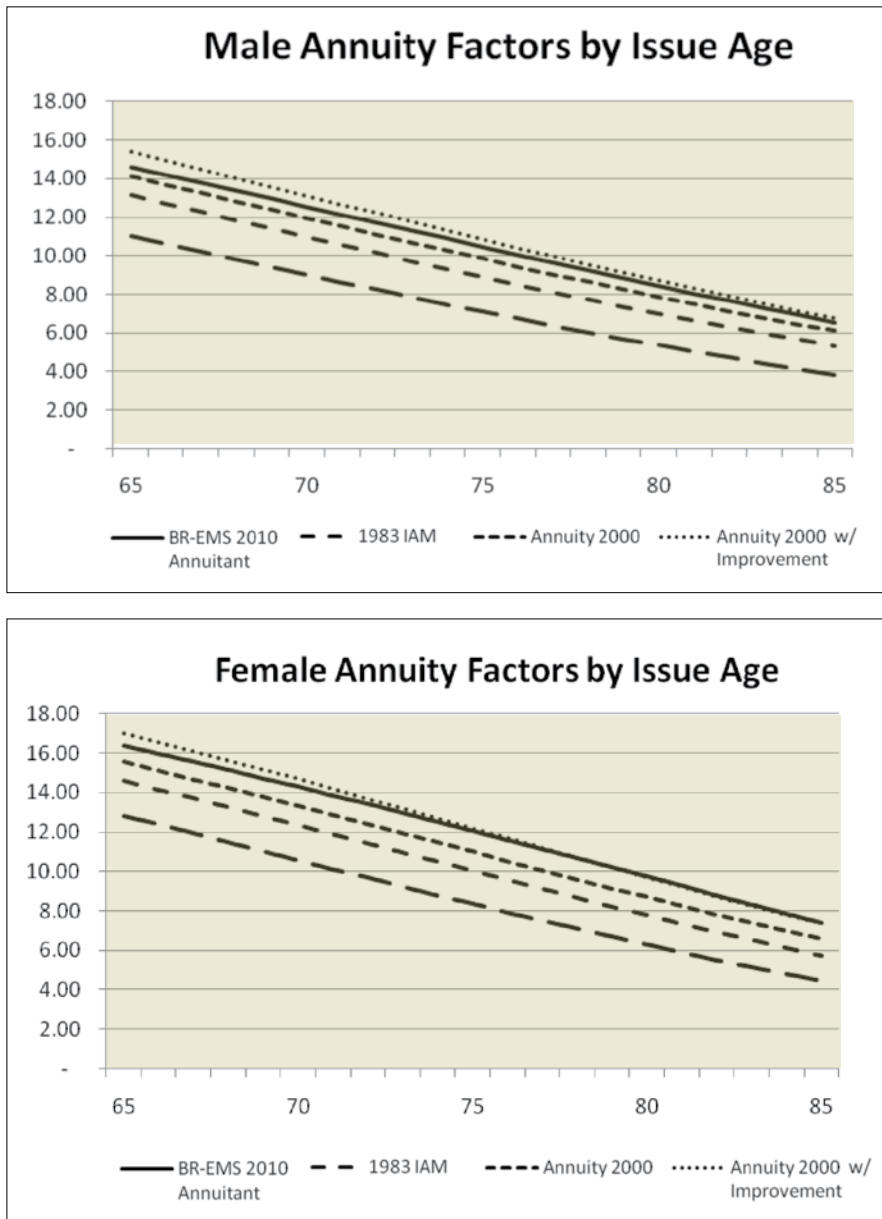


In immediate terms, the new tables will serve the purpose of significantly reducing the longevity risk for deferred annuities. The regulation has already been changed to allow companies to issue deferred annuities with the benefit calculated using the most recent table when the

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Figure 2: Annuity Factors



policyholder annuitizes, and not the most recent table at policy issue. Thus, a policy that annuitizes in 2030 will use the table released in 2030 to calculate the benefit, regardless of when the policy was issued. Prior to these new Brazilian tables, companies were forced to lock in the table used to calculate the benefit at policy issue, even though annuitization might not occur for 30 to 40 years.

Although companies will be able to use the new tables for calculating reserves, this will not be immediately required. The current regulations afford some liberty for companies to calculate reserves under their internal best-estimate assumption. It is possible that regulators will require that companies use the new tables for reserving purposes, possibly applying the assumption retroactively to in-force policies. As shown in Figure 2, this could have significant impacts for companies that have historically used weak improvement assumptions or the contractual tables used in calculating the benefits.

Finally, the new tables will certainly be tested by companies in embedded value calculations, asset-liability management (ALM) exercises, and other risk management activities. In the past, some combination of the Annuity 2000 table and improvement scales were used by most companies, without much confidence that the assumption represents the reality of the Brazilian annuity market.

It is still very early to determine all of the impacts that these new tables will have on the Brazilian annuity market, but it is clear that they are opening eyes and causing companies to think about how their business will be affected by mortality trends in the future. □



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Microinsurance 101

By Denis Garand and John J. Wipf

Both authors have worked as consultants in the field of microinsurance for more than 15 years. Aside from microinsurance product development, experience reviews, pricing, and other types of actuarial work, the bulk of their effort is in other areas of microinsurance development such as assisting with market research, operations training, business planning, IT systems development, and others.

WHAT ARE THE DIFFERENCES BETWEEN COMMERCIAL INSURANCE PRODUCTS AND MICROINSURANCE IN DEVELOPING COUNTRIES?

Since microinsurance is a very broad term with many definitions we adopt the simplest of these, “insurance products designed for low-income households.”

Most consumers in developed countries (and better-off consumers in developing countries) buy, or at least are familiar with, many kinds of insurance products which cover their lives, property, cars, and even the risk of their cancelled flights. These products exist largely because the market demands them.

Although microinsurance has been around for a long time under various names such as “industrial insurance,” the number of products has increased tremendously in the past few years as donors and development organizations realized the importance of insurance in complementing poverty alleviation programmes. At first the main suppliers, i.e., insurance companies, simply took existing commercial products and scaled them down to a level where poor households could afford the premiums. This approach did not work very well since the needs of the poor are different from the commercial market, and because the commercial products were

too complex. Today, more commonly, insurers and self-insured programmes are developing simpler products on the basis of expressed household needs with additional inputs from other stakeholders such as front-line distribution channels.

Generalizing, microinsurance products are usually much simpler, designed to cover the various needs of the poor, more inclusive, and often extend to all members in the household. Often, several microinsurance products are bundled as one composite product covering several risks. Premium is usually payable more frequently, even weekly, to suit the cash flows of poor households. At least one innovative programme in India collects premium through a network of agricultural cooperatives in the form of milk produced by its participating dairy farmer households.

HOW CAN THE POOR AFFORD THE COST OF INSURANCE?

The fact is the poor cannot afford to buy coverage for all of the insurable risks that they are exposed to. Typically, product development begins with a survey within the target market to determine the premium level that households can comfortably afford to pay, are willing to pay, as well as when and how they can pay. Another objective of such surveys is to build a priority profile of the risk events that households want to insure and the approximate coverage amounts expected.

The second step is to feed the summary information from the survey into an actuarial model from which the future financial performance of

CONTINUED ON PAGE 38

the microinsurance programme is studied. The premiums and benefits are adjusted until a suitable balance is achieved in the model. This process results in a sustainable product that is also affordable, and although coverage is based on the preferences of the majority it generally does not cover all of the household's risks.

One key to making products affordable is to minimize distribution costs. This is why microinsurance works best if it is offered through existing client/member servicing channels such as non-government organizations (NGOs), microfinance institutions (MFIs),¹ or credit unions. In the latter case, for example, the accounts of members can be accessed for frequent premium collection at marginal cost. Without taking advantage of such distribution synergies it is difficult to make microinsurance work.

Insurance can also be made more affordable by enforcing mandatory coverage for all members of a group. Although this policy is often criticized, it improves economy of scale, simplifies administration, and improves claims experience, hence making the products cheaper per unit of insurance.

By way of example, a product developed with the assistance of the authors for 25,000 clients of an MFI in south-east Asia costs USD\$0.07 per week and includes limited assistance if the head of the household is hospitalized (USD\$67, and it can be claimed only once every 5 years), as well as life insurance for the whole family (ranging from USD\$65-\$200). Participation is mandatory. In addition, the MFI requires each borrower to purchase credit life when taking out a new loan (single net premium of 0.40 percent of insured volume per annum). These products were carefully priced in combination using a survivorship/business planning model developed for

this purpose, but required extensive inputs from the MFI to project realistic expenses, lapse rates, investment strategies, etc. and to set important parameters such as targeted rate of surplus build-up. Affordability in this case was determined through a market survey and focus group discussions of the MFI's clientele.

CAN MICROINSURANCE WORK WITH THE VERY POOR OR ONLY WITH THE ECONOMICALLY ACTIVE POOR?

The description above on how products are developed should make the answer to this question obvious- products are developed based on what the target market can afford. Occasionally governments and donors will subsidize programmes but this usually does not achieve good long-term results since the subsidies are only temporary. It is near impossible to cross-subsidize products between higher and lower risk groups although it is sometimes possible to a degree in communities where the spirit of self-help and solidarity is high.

The main solution for the very poor is to include them in government-sponsored social protection programmes. This is equivalent to saying that redistribution of wealth within the country is necessary. Unfortunately, in most developing countries the tax base is much too small in proportion to the scale of poverty for this to work well. Some countries do achieve at least a measure of success, such as in Philippines where the poorest of the poor do not have to pay for participating in the government-run national health insurance programme.

WHAT KIND OF RISKS DOES MICROINSURANCE USUALLY COVER?

A recent study² showed that the main

¹ Note that some MFIs are NGOs, some are not.

² See The Landscape of Microinsurance in the World's 100 Poorest Countries
<http://www.microinsurancecentre.org/UploadDocuments/Landscape%20study%20paper.pdf>

“Product innovation is driven by the market and by other factors such as technology.”

microinsurance product is credit life; this pays off the outstanding loan of a borrower who dies. Generally this product is mandatory in order to take out a loan. Being driven by lending institutions is one reason why this is the most popular product and the fact that it is one of the easiest to manage is another.

Other popular products include term life, whole life, endowment, health, and some non-life products such as property protection. Savings products linked to such needs as education of children, cost of funeral services, or retirement are also in great demand but limited.

Most products are group products since individual underwriting and distribution is uneconomical for products with such low insured amounts.

Most market studies show that health insurance is in greatest demand. Unfortunately, it is also the most complex to manage for a wide variety of reasons. Today, a great number of health insurance programmes are self-insured because insurance companies do not want to assume the risk. The few successful programmes educate their market well, ensure that high quality and efficient care is delivered, and promote holistic health strategies to the market.

WHAT OTHER TYPES OF MICROINSURANCE PRODUCTS ARE BEING DEVELOPED?

Theoretically, products can be developed if there is demand and the risk event is insurable. Product innovation is driven by the market and by other factors such as technology.

Of late, index-based products are generating a lot of attention but most of these are still in pilot phase. One example is a product that is currently being piloted in the northern Kenyan

district of Marsabit where satellite technology is used to measure the amount of forage in pilot areas. This measure is used as a proxy for livestock mortality. Index-products such as this have some great advantages over indemnity-based versions since they practically eliminate moral hazard and the high cost of individual claims adjustment, but their utility is reduced since compensation is usually not reflective of real individual losses.

For some markets, products need to be modified in order to make them Shariah compliant, i.e., to ensure that they conform to Islamic principles and values.³

WHAT TYPES OF INSURANCE COMPANIES ARE BEST SUITED FOR MICROINSURANCE?

Generally, mutual insurance programmes with sufficient technical assistance and reinsurance are positioned to develop more relevant products and can service these more efficiently than commercial insurers. Some insurers, however, are working very hard to improve their performance in this area and some are succeeding.

Some commercial insurers are very innovative, such as one general company in India which distributes insurance to farm households by attaching a small amount of accidental death and disability cover (US\$90) to each bag of fertilizer sold by its agricultural distribution partner. The buyer of the fertilizer has coverage for a year whether or not he wants it since the premium is packaged with the cost of the fertilizer. Each farmer can only avail himself of a maximum amount of insurance (25 bags). The name on the fertilizer receipt is also the person covered. In 2005 the company sold over 25 million bags of fertilizer.

³ This is called Takaful insurance.

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WHAT ARE THE MAIN IMPEDIMENTS TO AND REQUIREMENTS FOR SUCCESS IN MICROINSURANCE?

In the authors' experience, limited availability and poor data creates some difficulties in pricing but this is not the most significant challenge by far. There are numerous other challenges, many of them situation and culture specific, but perhaps the most significant universal problem is the low level of awareness and lack of financial literacy. It is a surprise to many that after launching a new product, uptake is not as they had expected. This is often due to a lack of trust and limited awareness which can only be overcome with persistent and effective market education. Providers must enter a particular market for the long term in order to realize financial success.

Developing a cost effective distribution system is a key to success. Using traditional individual distribution methods is costly and difficult. It is important to work with organizations that the low income market trusts; therefore existing institutions that have gained that trust are excellent partners. One MFI in India offers credit life insurance plus a lump sum funeral benefit if the borrower or spouse dies. Being very close to its clients enables the MFI to effectively process and pay claims within 24 hours after death. Their total annual cost of operations including distribution is less than \$0.10 US per insured member. Without access to a trusted and effective distribution channel such as this there is little chance for viability.

For insurance companies, a principal challenge is to understand the operational changes that are required such as a) simplifying contracts to single pages; b) communicating simply yet effectively to clients; and c) changing claims adjustment policies by removing bureaucracy while maintaining control.

In the early 1990s a study conference was set up by the Indian regulator IRDA and a leading NGO in that country with an objective of creating a dialogue between insurers and NGOs on how to make microinsurance succeed. In that conference, insurers in unison presented their existing methodologies applied to smaller sums insured while the NGOs suggested alternative, simplified approaches to administration and developing products. Today, it is the insurers urging innovative and alternative changes to process and products. In fact, by engaging in microinsurance, a major learning for the insurance industry has been that by simplifying processes, profitability on their regular lines of insurance could be greatly improved.

CONCLUDING THOUGHTS

Actuaries interested in microinsurance are encouraged to study the many excellent publications that exist and are available on the website of the Microinsurance Network. To be effective, it is important to gain real experience and understanding on how to work with low income populations and in different cultural settings. Interventions should be regarded as a form of public service and one should not expect to earn regular fees when working with populations earning less than \$2 a day.

For insurance companies, there are valuable lessons from microinsurance that will improve their efficiency and profitability on their regular lines of business. Success will only follow those that are open and willing to change.

Working with microinsurance helps remind us all realize the tremendous social value that insurance has on society.

Although microinsurance has been around for a long time under various names such as

“industrial insurance,” the number of products has increased tremendously in the past few years as donors and development organizations realized the importance of insurance in complementing poverty alleviation programmes.

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John and Denis have coauthored a handbook “Key Performance Indicators for Microinsurance,” and will be releasing shortly a book on introduction to microinsurance. □

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The Netherlands: Going Strong After the Financial Crisis

By Sunil Sen

Editor's note: This article is the winning entry in this year's Country Feature Competition. Congratulations to Sunil for his excellent article!

We have all read countless number of articles written about the financial crisis. We have heard more stories from people personally affected than we would like. It is safe to say that the United States economy and, more importantly, its people were greatly impacted by the failures in the banking industry. Over three thousand miles away, the atmosphere in the Netherlands was quite different. Although the financial sector was severely hit by the crisis, it did not have the same impact on personal lives witnessed in the states. Job losses were relatively low, pensions were secure, housing prices did not drastically decrease, and the personal savings levels actually increased. The Netherlands experienced similar financial distresses to the United States; however, it did not experience the systemic problems which led to U.S. citizens being directly affected. These facts raise several questions. Most importantly, what structures successfully helped mitigate the impact of the financial crisis for Dutch residents and what can the United States learn or incorporate to ensure its own security?

THE DUTCH STORY OF FINANCIAL TURMOIL

The crisis in the Netherlands stemmed primarily from solvency and liquidity issues originating from losses in asset backed securities, in particular, those backed by sub-prime loans. The Dutch government reacted similarly to U.S. legislators and began issuing emergency lending to large multinational institutions and

guaranteeing troubled debt. Bailouts included €3 billion in aid to Aegon, €10 billion in aid to ING, and €1 billion in aid to SNS Reaal. The government also guaranteed more than €200 billion in corporate debt. These values may appear quite small when compared to the U.S. lending figures; however, one must remember that the Netherlands has only 1/20 the population of the United States!

Banks began to go insolvent in 2008 as witnessed across the world. The Netherlands insured deposits for customers with IceSave (Icelandic Bank) for over €1 billion, which was never repaid by Iceland. Fortis, once one of the world's largest 20 companies, went insolvent and was taken over by three governments overnight. The reaction to Fortis was so severe that it made the Belgium government fall, causing a political crisis. The Dutch portion was bought for a little over €16 billion and the vast majority is still under Dutch control. In many ways, the Dutch experience with Fortis paralleled the United States experience with AIG.

The most recent tragedy was DSB Bank. In late 2009, DSB witnessed a run on the bank scenario and quickly became insolvent. It is interesting to note that improperly priced insurance products were a main driver in its insolvency. DSB had sold term policies which were linked to mortgages using high upfront commissions and high cash surrender values. Legislation rules in the Netherlands forced commission rates to become more transparent. This had a negative consequence as many customers were offered products which they could not afford and felt misled. Further, the business model was under pressure as no high commissions could be charged anymore on their new business. Consequently, there was a huge spike in surren-



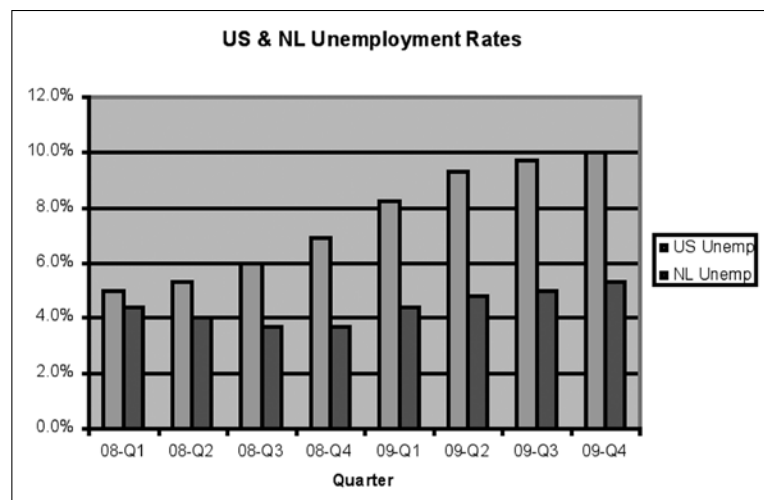
ders and a run on the bank, leading to DSB's insolvency.

In summary, the financial turmoil witnessed in the Netherlands was as severe as witnessed in the United States. So, why did it not devastate the economy as it did in the States?

WHAT STOPPED THE CRISIS FROM SPREADING TO OTHER SECTORS?

While the financial crisis in the United States quickly spread to the general economy, it remained relatively contained in the Netherlands. We must ask ourselves, what backstops were in place that led to such different reactions in the respective economies? We will focus on the main differences which led to Dutch stability, primarily: job security and employment, pension security, housing stability, and more evenly distributed wealth levels. We will analyze these individual impacts and investigate small alterations in the United States which could lead to significantly more stability.

Shortly after the financial crisis began, companies began cost cutting. In the United States, it is easy for a company to cut their expenses at the cost of their own employees through layoffs and redundancies. As a result, unemployment went through the roof. Soon began the downward turn into the recession where sales were low and jobs were scarce. Meanwhile, across the pond unemployment remained relatively unchanged, increasing by only one percent. Workers rights are quite strong in the Netherlands. Among these rights, employers must give required payouts in the case of layoffs and employees whom have a permanent contract have substantial legal rights which protect their job security in stressful times. Consequently, companies cannot transfer losses to employees by letting them go, only to hire them or a



replacement back in six months. Although the companies cannot react as fast and shareholders may suffer more, the employees within the organization do not have to also share in the economic loss.

The pension system in the Netherlands is structured and regulated differently than in the United States. First, most plans are defined benefit plans. This limits the impact for pensioners as the pension entity bears the funding risk. Second, companies may invest a maximum of 5 to 10 percent in a company's own stock, depending on organization classification. This means that a large drop in a company's stock price will have a much lower impact on the ...funding in the Netherlands than in the United States. Third, pension funds are required to be a separate entity by law and companies must transfer the appropriate funds to the pension entity on an annual basis to ensure that the pension is fully funded. In the United States, pensions

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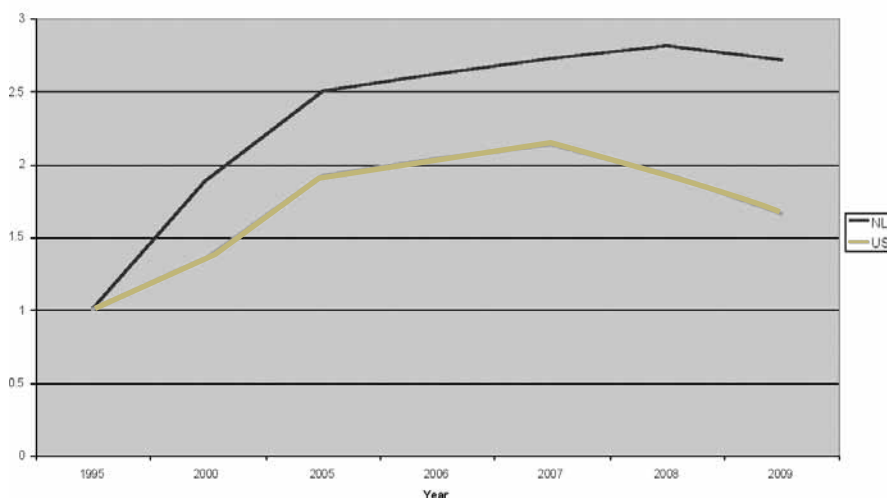
can be underfunded for years in a row and funding requirements are much lower. The Dutch regulations limit the systemic and long-term funding risk. These three impacts greatly reduced the loss due to the financial crisis for the aging population and helped stabilize the economy as a whole.

Wealth levels also played a large role during the financial crisis. Individuals without a substantial financial cushion were subject to extra hardships, sometimes significant extra hardships. The wealth distribution in the United States is skewed with the top one percent of the population owning over 20 percent of the wealth. Comparing this to the Netherlands, the top 10 percent of the Dutch population own 20 percent of the wealth. The trend is the same across the board as a percentage of population. The United States has substantially higher levels of lower income individuals who are prone to financial hardship. This means that the average American has much less of a financial cushion than his or her Dutch counterpart. When a crisis hits, there

is less money to cover the gap and American pocketbooks will be harder hit.

The Dutch housing market remained much more stable than in the United States. The striking commonality is that both markets experienced explosive increases in housing prices leading up to the crisis. The U.S. market increased primarily due to increased lending and low capital costs. The Dutch housing market increased as a result of the Euro zone. From 1995 to present, the average housing price more than doubled. Although both countries witnessed huge increases in housing prices before the crisis; their economies reacted quite differently. In the Netherlands, bankruptcy is much more painful than in the United States. In the United States your credit may be ruined for 10 years, but in the Netherlands, you could see your wages garnished for 10 years. Consequently, the option to walk away from a mortgage and leave the bank with the loss is much more costly in the Netherlands. As a result, less people exercised this option and prices remained relatively stable.

Housing index 1995-present



LESSONS LEARNED

So, what can we take away from this comparison? The legal differences in workers rights, pension security, and loan underwriting lead to different economic reactions within the two lands. I would not advocate that the United States should incorporate the same legislation as the Netherlands due to cultural differences; however, the United States could induce economic stabilization measures through regulatory reform. First, the United States should further its pension legislation reform. There is little opposition from the general population to greater pension security and independence and would be a win-win for both pensioners and macro-economic stability. As a result of the financial crisis, new funding requirements have been relaxed. The result is companies will weather the financial crisis better; however, at the expense of its employee's future pensions.

Personally, I would rather see the company take the loss rather than transfer the risk to its employees. The second point would be to introduce more workers rights to inhibit companies from transferring their short term losses to their employees. If a company was required to pay six months unemployment before any public unemployment benefits are given, it would be a natural preventive measure to reduce unemployment increases during moments of severe downturn. Furthermore, it would also provide greater long term stability for employees and consequently lessen the impact of consumer spending decreases during a recession.

The United States has primarily dealt with the

crisis through costly capital injections and debt guarantees. The national debt has increased tremendously during this period and we will be paying for the financial crisis for many decades to come. If we had had more backstopping measures to reduce the impact of a recession, how much money would the U.S. government have saved during the crisis? How much personnel and financial distress would have been avoided? This financial crisis provided the best hands on training concerning macro-economics and systemic risk in most reader's lifetimes. The question is: will we reform our system in order to withstand the next big one? □

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GULF ACTUARIAL FORUM

Realizing the growing size of the actuarial community in the Gulf (presently around 60-75 including fellows, associates and students), professional development requirements, interactions on latest issues and networking, the actuaries in UAE took an initiative in May 2008 and started to have a meeting once every three to four months in Dubai. So far, they have arranged seven meetings in which actuaries have given presentations on different topics including Takaful, solvency, role of appointed actuary, communication, Enterprise Risk Management, etc. Initially, only the actuaries in UAE attended the meeting but later actuaries from Qatar, Bahrain, Pakistan and the United Kingdom have also attended. In the last meeting, the secretary general of the Emirates Insurance Association also attended. These meetings have proven to be very useful for interacting on latest issues. The next meeting is scheduled on June 22, 2010 in Dubai. The forum is also discussing how to increase their activity level and establishing themselves into a formal association at some point in future is a possibility.

U.K. FORTHCOMING ACTUARIAL EVENTS

17 Sep 2010

Variable Annuities: Bridging the Divide

Location: Staple Inn Hall, London

12 Oct 2010

Open Forum: Latest Developments in Longevity Hedging for Pension Schemes

Location: Staple Inn Hall, London

12 Oct 2010

General insurance (GIRO) conference 2010

Location: Celtic Manor, Newport

7 Nov 2010

Life conference and exhibition 2010

Location: International Convention Centre, Birmingham

8 Dec 2010

Momentum conference 2010

Location: Celtic Manor, Newport

For details and more U.K. events, see http://www.actuaries.org.uk/media_centre/ap_events and <http://www.sias.org.uk/diary>



20TH Annual CAA Conference

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Hotel reservations can be made via the Web using the personalized group Web page at the following link: http://www.hilton.com/en/hi/groups/personalized/BGIHHH-CAA10-20101128/index.jhtml?WT.mc_id=POGon.



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