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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.

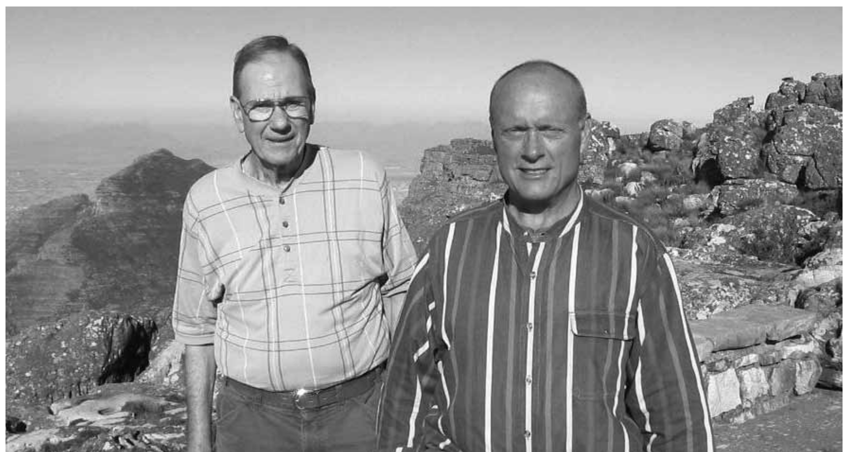
TUESDAY MARCH 2 THROUGH THURSDAY MARCH 4

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 active 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.



Pictured L-R: Burt Jay and Tom Herget

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, nonnormality, 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 defendable 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. □