SOCIETY OF ACTUARIES International Section

International News

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Actuaries
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International
News
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This newsletter is free to section members. A subscription is $20.00 for nonmembers. Current-year issues are available from the communications department. Back issues of section newsletters have been placed in the SOA library and on the SOA Web site (*www.soa.org*). Photocopies of back issues may be requested for a nominal fee.

Editor's Note

By Carl Hansen

WELCOME TO THE REDESIGNED *INTERNATIONAL NEWS.* The SOA staff has made a few changes so that the newsletter looks more updated and better fits with the new SOA branding. We hope the changes are appealing to our readers.

This issue includes two articles from our 2008 Country Feature Competition. Thank you to all authors who submitted articles for the contest, but especially at this time to Alistair Cammidge and Javier Campelo for their patience while waiting to see their articles in print. I hope that all readers will agree that the entries were all excellent and that Nhon Ly's article "Vietnam: An Emerging Market, No Longer a War" (featured in the December 2008 issue) was a deserving winner of the competition. We look forward to sharing the 2009 contest entries in the upcoming issues.

This issue features a summary of the results of a membership survey done by the International Section Council last year. The survey gave the council excellent feedback that helped to guide initiatives for this year. The council represents the membership of the International Section, so please pass along additional suggestions to any of the council members. Or, take leadership in the section by running for one of the council positions. If you are not currently a member of the International Section, please consider joining.

Perhaps more than any other SOA Section, the International Section represents a very diverse group of actuaries, coming from many countries and working for many different types of employers. Hopefully, this diversity is reflected in our newsletter content. In this issue, we have articles from five different continents and topics covering a wide variety of issues. We are always looking for new and interesting content for future issues, whether it is an article, an update on what is happening in your country, or just an announcement of an upcoming event.

We hope you enjoy reading this issue. Please feel free to contact the editorial staff (or the SOA) if you have any comments, suggestions, or content for future newsletters. □

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Chairperson's Corner

By Bosco Chan

Before I introduce our 2009 activities, I would like to thank our outgoing council members, Alex Kogan and Catherine Lyn for their tremendous contribution to our section in the past three years. Alex is a people-oriented leader who has motivated all of us to be heavily involved in council activities. He gave us no chance to take breaks. I think the positive feedback from our section surveys speak louder than any marketing materials that we could have possibly used. Catherine's talent and creativity have brought together the Country Feature Article Competition which is a well-known success story. This competition has enabled our council to gather informative and interesting articles related to actuarial profession development, market trends, consumer behaviors, social values and culture from across the globe. Our newsletter is so thick that anyone can spot it from a messy office desk.

As the new chairperson of the International Section and successor of a well performing council, I am dedicated to deliver superior service to our members. I feel very honored and fortunate to have the opportunity to work with a team of great talent. Our diversified background allows us to benefit from business knowledge, solution-based orientation to problems, strong creativity, a track record for excellent execution, passion and commitment to the success of our section. We will continue to make worthy investments today so that in the future our successors can reap the rewards and can expand their goals—just as we have built upon our predecessors' investments to achieve our current success.

Our transition meeting occurred in Orlando last October. We started the 2008-2009 council year with a review of last year's performance metrics and our scores. Generally speaking, we are doing very well.

1. We have a high membership retention rate of 85 percent compared to the average of 82 percent. Members are satisfied with our deliverables.
2. Given our members' wider geographical spread compared to other sections, we are doing well with a volunteer participation rate of 13 percent compared to the 14 percent average.
3. 36 percent of our members perceived good value with our educational seminars. Given our members belong to a wide range of practice areas, this is a high score. This shows that we are sensitive to the market conditions.
4. We have maintained a healthy surplus level which permits our council to take appropriate risk in testing new ideas and invest in opportunities for a better future.

A goal without a plan is just a wish. We set our goals and directions in the November planning meeting which was followed by the December budgeting meeting. The council has agreed to sponsor several activities including but not limited to the following:

1. Domestic educational activities to bring solutions to the market that reflect market conditions and actuaries' needs.
2. Convert our successful overseas US GAAP seminars to an IFRS focus to reflect harmonization of accounting standards.
3. Ambassador program with funding to sponsor local activities.
4. Expand overseas membership by providing one-time free trial to 1,000 overseas ASAs.
5. Organize a joint social event with other actuarial organizations to share networking.
6. Newsletters and Country Feature Article Competition to scan the market environment around the world.
7. Membership survey to collect feedback and to identify areas for developments.

2009 will be a challenging year for all industries including the actuarial profession. Although it is difficult to maintain focus in this time of uncertainty, we will do our best to keep focus on our goals and objectives. You have elected a great team and we will not disappoint you. □

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Message from the SOA President

By Cecil D. Bykerk

It is a great privilege for me to greet the 1800 members of the Society of Actuaries' International Section. As you may know, I have been involved in a number of international initiatives throughout my professional career. Most notably, I have served as a volunteer on several International Actuarial Association (IAA) committees and working groups, including two terms as chairperson of the IAA Education Committee. Ensuring that North American actuaries are kept informed of international developments in the profession and ensuring that our overseas members maintain a strong connection to our association are two objectives that are important to me. With 10 percent of all SOA members residing overseas and a growing number of international students, the International Section plays a critical role in the sustaining of those two ideals and I encourage you to continue to actively support this section.

Standing from the left are Raymond Tam, Albert Chan, Tommy Ng, Brian Chiu, Jerry Brown, Cecil Bykerk, Steve Hui, and Michael Ross. Seated from left to right are Doreen Tan, Martha Sikaras and Pat Kum.

I was quickly ushered into the international reality of the SOA presidency when I embarked on two-week trip abroad just three days after receiving the gavel. That trip included stops in Shanghai, Singapore, Cyprus and London. In Shanghai, I enjoyed the hospitality of some local actuaries at a dinner arranged by the staff of the Joint Actuaries Office. Our dinner discussion proved that the current financial crisis has no geographical boundaries and that actuaries around the world are being called upon to help address many of these concerns.

I was also privileged to meet about 60 actuarial candidates through our Associateship Professionalism Courses held in Shanghai and Singapore. For some reason, all of these students were amused by the fact that many were not yet born at the time I earned my FSA! These smart and engaged students did however demonstrate to me that our profession has a bright future. The addition of e-Learning to our basic and continuing education offerings is one way that the SOA is addressing the needs of our overseas constituents.

From Asia, I traveled directly to Cyprus to attend the meetings of the International Actuarial Association (IAA). At the IAA meetings, association delegates discussed the pros and cons of an international education program, aimed at actuarially developing countries as well as a global ERM credential. That trip was concluded in London with two-days of meetings with our colleagues of the Institute/Faculty of Actuaries (UKAP). Part of that trip included a walking tour of the city of Oxford and its namesake university.

"Ensuring that North American actuaries are kept informed of international developments in the profession and ensuring that our overseas members maintain a strong connection to our association are two objectives that are important to me."

The month of December brought with it snow to my hometown of Omaha, which led to me gratefully accept the invitation of the Caribbean Actuarial Association's annual meeting, held this year in Trinidad. Previous SOA presidents had told me that they considered this event to be their favorite. Now that I've had the chance to experience the hospitality of the Caribbean actuarial community, I understand why. This association recently celebrated its entry into the IAA as a full member. I spoke to its members about our newest credential, the Chartered Enterprise Risk Analyst (CERA).

One of the benefits of the SOA presidency is the opportunity to travel; meet new people; see and experience new cultures, foods and traditions. In Singapore, for example, I was able to enjoy the night safari at the Singapore Zoo as well as an evening meal at the Newton Circus food centre. The greatest benefit of course is the chance to meet the current and future members of the SOA as well as other professionals in the financial services industry. I look forward to meeting many of you in the coming year as I travel around the United States, Canada and the world. □

New International Section Council Members

The membership of the International Section elected three new representatives to the Section Council during the recent SOA elections. Joining the council for a three year term are Alan Cooke, J. Peter Duran, and Joanna Chu. Thanks to the outgoing Council members—Alex Kogan, Cathy Lyn, and Liang (Jason) Zhang—for their service to the International Section.

Here is some background information on the three new council members.

Alan Cooke, FSA, FCIA, MAAA, Recently Retired Principal, Mercer, Vancouver, BC, Canada. He can be reached at *vancooke@telus.net.*

Professional Background: Consulting actuary specializing in providing advice to major international institutions on international pension issues.

Society of Actuaries Activities: Past presenter at actuarial meetings; Exam grader; Task Force member on the Future of Social Security.

Relevant Experience: Over 30 years of international experience including advising on pension issues in more than 50 countries and working in several countries.

Why are you interested in leading your section?
I have had the good fortune in my career to work on pension issues in over 50 countries in Europe, the Americas, Africa, and Asia. As a result I have had first-hand experience in dealing with a wide variety of cultural and technical issues that could be helpful in the work of the International Section.

J. Peter Duran, FSA, MAAA, PhD, senior manager, Deloitte Actuarial and Insurance Solutions (Hong Kong) Limited, Admiralty, HK. He can be reached at jpduran@deloitte.com.hk.

Professional Background: Consultant specializing in life insurance financial reporting, risk management and related matters. 33 years experience in the insurance industry, 13 with an insurance company, and 20 with professional services firms.

Society of Actuaries Activities: Former chairperson, Committee on Valuation and Related Matters; Former member, Financial Reporting Section Council; Former member, Academy Committee on Life Insurance Financial Reporting; speaker at numerous SOA meetings.

Relevant Experience: Nine years experience living and working in Asia, both Tokyo and Hong Kong; Advised numerous clients, both domestic and foreign, on financial matters affecting their U.S. insurance businesses.

Why are you interested in leading your section?
For the past nine years I have been working in Asia and have come to realize that SOA members outside the United States have special needs requiring special consideration. These relate primarily to continuing professional education. I would like to be an advocate for such members.

Also, I feel there is a need for SOA members outside the United States to network in their local areas among each other as well as to communicate in an organized way with the U.S. based membership. I would also like to support the SOA's recruitment efforts in Asia by organizing information briefings for young people who may be considering an actuarial career.

Joanna Kam-Ieng Chu, FSA, MAAA, actuary, AIG–American International Underwriters, New York, NY. She can be reached at at *joanna.chu@aig.com.*

Professional Background: Product development actuary specializing in Individual Life and A&H products for diverse distribution channels in various markets outside the United States

Society of Actuaries Activities: Lead the Younger Actuarial Network (YAN) which is a subsection of the Actuary of the Future (AOF) Section; Current council member for the AOF; Regular contributor to the newsletter of the AOF; Session coordinator for the AOF Section at 2007 SOA meetings; Moderator for the AOF Section at 2008 Spring Meeting.

Relevant Experience: Active member of the Actuarial Society of New York (ASNY)—coordinated a session, "International Product Landscape," in 2007 and helped coordinate a session, "Vietnamese Mortality Workshop," in 2008; Volunteer for Chinese Actuary Club (CAC)—help coordinate networking events.

Why are you interested in leading your section? I've been working in international markets, especially in Asia markets, for almost four years, and believe that this area is filled with opportunities and challenges. By actively getting involved with the section and leveraging my relationship with the AOF/YAN, I would like to help local SOA members and/or potential SOA members address their needs and provide solutions, such as mentor programs and exam assistance. □

Ewart S. Williams is Governor of the Central Bank of Trinidad and Tobago in Port of Spain, Trinidad.

The International Financial Crisis: Implications for our Financial Sector Stability

Keynote Address from the Caribbean Actuarial Association Conference

By Ewart S. Williams

Thanks for inviting me to give the opening address at your 18th General Conference.

Let me congratulate the Caribbean Actuarial Association on becoming a full member of the International Actuarial Association. This is a commendable achievement and in my view, is testimony to your commitment to pursue and achieve a level of proficiency that is consistent with international standards. This achievement augurs well for our financial sector as a whole and for our insurance and pensions industries in particular.

I also want to extend my appreciation for your collaboration with the Central Bank, ATTIC and the Institute of Chartered Accountants of Trinidad and Tobago, to develop a standardized actuarial valuation methodology for the local insurance industry. The development and implementation of such a standard is of critical importance as we strive to enhance our ability to effectively supervise the insurance industry.

My topic today is "The International Financial Crisis: Implications for our Financial Sector Stability." While my references will be largely to our financial system (Trinidad and Tobago) I expect that participants from other countries in the region could also identify with my sentiments.

I would not be surprised if many of you are more than a bit tired of hearing about this "unprecedented" international financial crisis that the world is going through; and the fact that "it is the most severe financial crisis since the Great Depression." To be honest, these words are now so over-used that there is a risk that the whole thing is perceived as a big exaggeration, particularly for populations far away from the Center, as we are.

I will try not to go over all the "unprecedented" financial developments of September and October but rather try to pry a bit behind the simple explanations and more so importantly, focus on the more important lessons that the financial meltdown should have for financial regulators in the Caribbean and particularly for us in Trinidad and Tobago.

It has become commonplace to see the roots of the ongoing global financial turmoil in the sub-prime crisis in the United States, triggered by the turn of the housing cycle and increasing defaults on subprime mortgages. The fact is however, that the crisis had deeper causes including, in particular, the under-pricing of risks and debt-accumulation in several countries, during a period of low real interest rates and easy access to credit. All of this was grounded in the increasing macro-economic imbalances between the G7 economies, particularly the U.S., and the major emerging market economies.

According to this thesis, the years of accommodating monetary policies in the United States which led to rapid economic growth, a consumption boom and asset bubbles (particularly in the housing sector), also brought a widening external imbalance. Of course, the flip side to the U.S. deficit was the ballooning surpluses in many emerging market economies—mainly China, India and some of the major oil producing countries in the Middle East.

Now, the savings glut in these emerging economies led to the extraordinary flow of funds back to the developed world, and to the United States in particular. That in turn kept interest rates low, allowing the rapid growth of credit but fuelling an

"…what the crisis has certainly done is to remind us of the vulnerabilities of our financial sectors…"

increasingly risky search for yield—for example, in sub-prime housing in the United States.

In this explanation, the villains were the extended period of low interest rates and the inflated aggregate balance sheets of the large banks all over the United States and Europe. And with interest rates low, these banks, which are driven by their bottom lines, became consumed in a search for higher yields and thus they expanded into assets, whose underlying value was uncertain and whose credit quality was exceptionally risky.

Moreover, in order to expand their balance sheets at the accelerated rate, these banks could not depend on deposits but rather increased reliance on wholesale funding (inter-bank loans), whose maturity was often short.

Two other elements added importantly to the brew: firstly, inadequate capital and liquidity buffers given the high asset and liability risks; and secondly, the under-appreciated but potent links between firms in the global financial system.

And as it turned out, with increasing defaults on sub-prime mortgages, the credit ratings of the structured products were significantly downgraded; this created uncertainty about the creditworthiness of the big banks worldwide, led to the now famous drying-up of the inter-bank market, and the credit crunch.

A long complicated story that is still evolving but in the meanwhile has led to a major global recession.

What are the main lessons of the crisis for Caribbean regulators?

As you know, the first round impact on the Caribbean financial system has been fairly limited for several reasons.

For one thing, our banks had not invested heavily in sub-prime mortgages and secondly, credit expansion of our financial institutions is based on deposit mobilization and only marginally on foreign loans. Some observers see our financial resilience as a reflection of the region's limited integration in global financial markets (which has turned out to be a benefit, this time around).

Of the countries in the region, Jamaica was perhaps the most seriously affected because of the decline in the value of its global bonds, much of which were held by domestic commercial banks. The Bank of Jamaica had to establish a US$300 million facility to provide assistance to the commercial banks. Jamaica, however, continues to face capital outflows and exchange rate pressures.

Of course all our economies are now suffering the effects of the crisis through the trade channel, but that is a separate discussion.

In terms of financial stability, what the crisis has certainly done is to remind us of the vulnerabilities of our financial sectors, underscoring the urgency to take corrective action.

For several years, we in Trinidad and Tobago had recognized the need to tighten financial sector regulation and supervision, and we have been doing it but "at our own good pace," which is a wee bit faster than very slow.

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After many years of discussion and preparation the Parliament finally approved a new Financial Institutions Act (FIA) on Tuesday; we are working on a new Insurance Act (the current one dates back to 1980) and new Securities, Pensions and Credit Union legislation is also expected over the next one to two years.

There is no doubt that our financial legislative framework is woefully inadequate and urgently needs to be upgraded. But the lesson from the crisis is that while robust legislation is certainly necessary, it is clearly not sufficient. So as we move more aggressively on the legislative front to bring our legislative infrastructure in line with international best practices, we need two other things to bolster financial stability.

- First, we need to shake the complacency that results from several years of continuous financial sector expansion and require our financial institutions to put robust risk management at the core of their operations (our institutions need to be reminded that the financial meltdown that happened to Jamaica in the late 1990s could happen here).

- Second, we need to reinforce our regulatory efforts by doing three things, getting a better balance within macro-economic policy; establishing a set of reliable early-warning indicators and developing, in conjunction with the government, a crisis management plan (to deal with systemic institutions).

The new FIA, approved Tuesday, would help us deal with many of the risk management issues that have traditionally plagued the financial system. The new FIA formalizes consolidated supervision, in order to identify and evaluate the group risk and the risk of contagion. It seeks to address related-party lending, which has been a traditional source of vulnerability of our financial institutions; the new FIA upgrades governance structures with such features such as requiring more independent Board directors, and an independent audit committee. It also gives more authority to the external auditors.

Very important from our vantage point, the new FIA gives more authority to the Central Bank to take early corrective and preventive action to protect depositors.

As noted above, new legislative structures are also urgently needed to reduce the vulnerability of the insurance sector. Currently this vulnerability derives in part from the absence of a standardized actuarial methodology to value insurance liabilities and the absence of an appropriate framework for setting capital requirements, commensurate with the risk profile of the particular institution.

One inescapable lesson from the global turmoil is the risk inherent in the operations of large unregulated financial institutions. Fannie Mae and Freddie Mac were perceived to be state institutions with an implicit government guarantee. In the absence of prudential supervision they were both driven to the edge of insolvency by the sub-prime crisis, and perception became reality. Both these institutions had to be taken over by the Federal government and the implicit guarantee has now become explicit.

As you may know, the investment banks—Bear Sterns, Lehman Bros, Merrill Lynch, Goldman Sachs and Morgan Stanley—were subject to minimal, if any prudential supervision. Three of the five got into serious financial difficulties and had to be absorbed by commercial banks. The other two converted into commercial banks subjecting themselves to rigorous prudential supervision.

> "The current crisis … should make clear to us the need for identifying risks to the financial system at the earliest possible opportunity."

There are similar gaps in our financial system that we are seeking to address. The Home Mortgage Bank has already been brought under the supervisory ambit of the Central Bank. Consideration is being given to making similar arrangements for the Unit Trust Corporation. As I said before, we are in discussions with the Credit Unions to formulate legislation that will promote an appropriate prudential framework without compromising the unique cooperative character of the movement.

But there are lessons that can not be addressed by legislation. One such issue is ensuring consonance between monetary policy and financial sector regulation. It is a thorny difficult issue for most central banks. Take our case, the present anti-inflationary posture requires occasional increases in interest rates. However, under certain conditions, higher interest rates could lead to an increase in non-performing loans, which in the absence of adequate capital, could compromise the solvency of weaker institutions. There is no easy answer to this dilemma except through ensuring that increases in interest rates are contained by sharing the adjustment burden between fiscal and monetary policy and by ensuring that periods of high inflation are kept as short as possible.

A second issue that has come to the forefront and which has relevance to our situation is the inherent tendency for financial institutions to build-up risk in an economic upswing only to be forced to sharply tighten credit conditions in the downswing. Of course, the credit tightening further aggravates the economic decline. There is now on the table, (in the international discussion) a proposal, whereby banks would build-up general loss reserves during good times and draw on these reserves when the economy begins to deteriorate and actual losses are incurred. The resulting moderation in credit swings could serve to enhance financial stability generally.

The current crisis (as well as the last major regional crisis, in Jamaica in 1999), should make clear to us the need for identifying risks to the financial system at the earliest possible opportunity. Accordingly, the Central Bank is working on a more effective approach to detecting risks, through an early warning system. The system will, however, require more and better information from the financial institutions, closer collaboration between regulators and more detailed macro-economic analysis of both our economy and the international economy.

But, even after we upgrade our financial legislation, even after the banks improve risk-management, even after we introduce effective early warning indicators, it is more than likely that at some stage, our financial system will face serious stress. To prepare for such an unwelcomed eventuality, we need to put in place adequate crisis management and emergency lending arrangements. We need to face the fact that, in small countries like ours, even much more so than in the United States, there tends to be systemically important institutions, with disproportionately large market shares, which require more intense oversight but which must be provided for, in any crisis management plan.

We are working on a crisis management plan which carefully identifies those systemic institutions and assigns specific roles of the Central Bank, Deposit Insurance and the Ministry of Finance in the event of a crisis. Contingency planning takes on even great importance in cases where there are regional financial institutions operating in several countries (as presently obtains). Our regional banking structure will require a robust and predictable framework for consultation and for burden sharing among the various countries.

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Indeed, there are other lessons from the crisis but time does not allow me to cover all.

For instance, the crisis should bring home to us some of the risks of the "originate to distribute" model, which has already caused us problems here in the Caribbean. This is the model where a financial institution originates a transaction, in which the entire issue is pre-sold to other institutional investors. In many of these cases there may not be sufficient incentive for robust due diligence since the originator is passing on all the risk, after it makes his commission.

Then there is the issue of financial innovation which in the United States contributed to significant debt accumulation and an increase in the level of risk which was not fully appreciated. Clearly financial innovation should be encouraged since it could bring significant benefits, not least of which are lower financing costs and the spreading of risks. Innovation impacts are however invariably off-balance sheet and tend to avoid the scrutiny of the regulators. The issue is not to discourage innovation but to ensure that the contingent risks are recognized and covered through increased capital.

Where does all this leave us?

The current global financial crisis has clearly forced us to acknowledge the close link between macro-economic policy and financial stability. It has reminded us of the need for strong well-capitalised financial institutions with robust risk management and governance systems, a strong and transparent regulatory and supervisory framework, an (effective) early warning system and a comprehensive regime for crisis management.

We have to be careful lest the crisis leaves us so traumatized, that we change gears to a system of over-regulation; one that discourages risk-taking and punishes innovation. In the final analysis an efficient and stable financial system is a key for sustainable economic growth. An under-regulated financial system is a risk to financial stability and economic growth; but an over-regulated financial system will not be efficient and will not give adequate support to innovation or growth.

The challenge is simply finding the balance…and that is not so simple. □

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Inequitable Life

By P.G. Alistair Cammidge

"Iam sages est ubi Troyia fuit." (Now there are fields where once Troy was - Ovid)

For actuaries round the globe, the most distressing event of recent years was the collapse of Equitable Life—founded in London in 1762 as the Society for Equitable Assurances on Lives and Survivorship. The 'Old Equitable' was the first assurer established on sound actuarial principles. No actuarial textbook was complete without reference to how the Equitable did things in the beginning under its first actuary. The very designation 'actuary' was resurrected by the Equitable from antiquity. Names of senior actuaries at Equitable became familiar to actuarial students as authors of textbooks and seminal papers.

Old Equitable is a mutual company—owned by its policyholders and operated for their benefit.

Prior to the advent of the welfare state, mutual (with co-operative and not-for-profit) financial organizations were an essential part of the British social fabric, aiding their members through sickness and bereavement; helping them buy everything from a crib to a home to a funeral. Until recently, the small saver and home buyer turned not to a bank but to a mutual building society.

Worldwide, mutual financial firms have succumbed to cost pressures. In Britain, as elsewhere, most have demutualized; some have merged. Although a number of large mutual insurers converted to stock ownership in the 1990s, mutuals yet account for a significant proportion of U.K. life assurance. Demutualization has not been a panacea—in 2007 investors suffered a run on Northern Rock—then a bank, once a building society!

This is the story of a mutual life assurer that dared to grow—and grew beyond its strength. Though the insurer is British, its tale could easily have been told elsewhere. Indeed, Equitable sold policies in other European countries.

The African coast around Cape Town is littered with shipwrecks. How did so many master mariners come to grief on South African rocks when they had the limitless Southern Ocean to navigate in? The answer—they tried to cut a corner; some did so in kindly weather and succeeded—others were hit by storms then they hit unyielding Africa.

Equitable's modestly-remunerated actuarial management wrecked a fine ship—for which they have been whipped and pilloried. Corporate executives who have lost sums vaster by far are rewarded with mind-boggling retirement packages and suffer but a few 'tut-tut's from the press.

A significant cause of the Old Equitable's downfall was the failure of authorities—and judges—to understand the relationship between policyholders in such a company. One might suggest they did not want to understand what sort of ship a mutual insurer is!

An important difference between mutuals and proprietary companies is their ability to access capital. Proprietary companies have access to external sources of capital from the equity and the debt markets. Mutuals have no recourse to the equity markets and have only limited external debt, but instead rely largely on internal resources—the resources of their policyholders—to finance investments. The knowledge that capital cannot easily

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be replaced following significant losses ought to induce managers of mutual financial institutions to adopt a low-risk profile.

In addition to being a mutual, the Old Equitable was a standout in another important way—she did not pay commission to agents or brokers. Thus she remained—until the 1960s—a small, conservative life office. In 1969, her liabilities were a mere 39 million GBP (British pounds). She was heavily dependent upon the Federated Superannuation Scheme for Universities (FSSU) which accounted for more than half of her business. When the FSSU business went into decline in the early 1970s (under the impact of tax changes), the Equitable had to change.

The strategy adopted called for the opening of many branch offices and products aimed at a high net worth clientele. This approach was highly successful—liabilities grew to 34 billion GBP in 2000. Over a 40 year period, asset growth averaged 19 percent per annum.

Growth was fueled by a policy of distributing to policyholders as large a proportion as possible of the emerging surplus earned by them. Policyholders are the owners of a mutual insurer—but when a policyholder 'withdraws' (because of death or otherwise) his (or her) ownership interest terminates. Such a policyholder has no interest in passing on to succeeding policyholders any enduring 'estate' (accumulated surplus). By contrast, the owners of a proprietary insurer are its shareholders; when a shareholder no longer wishes to 'participate' he sells his shares to another, realizing the 'market value' of his share in the enduring estate.

The Society had explicitly held an estate until 1972. That estate was exhausted between 1973 and 1976. The Society deliberately re-built a significant estate by 1982 by withholding benefits from current policyholders. It was only in the middle to late 1980s that there came to be a positive assertion of a full distribution policy.

The Society's approach to bonus (dividend) distribution was one of 'equity'—fairness. This concept is impossible to define precisely but it aimed to provide a total bonus package to a with-profits (participating) policyholder based on the earnings of the business during his membership of the fund.

In addition to returning to each policyholder the return he had earned, Old Equitable sought to 'smooth' returns i.e., returning to policyholders withdrawing in times of low asset values more than a strict accounting could justify at the cost of returning less to those withdrawing in times of high asset values. Should low asset values persist, such an approach would deplete the company's reserves.

Policy values and hence claim values cannot consistently exceed the value of the underlying assets. Policy values might be managed so as to be very close to asset values with the volatility that

> "Actuarial navigators had sailed the ship too close to the rocks; a legal storm wrecked her."

such a course implies. Alternatively, a period of over-allocation must be followed by a period of under-allocation. Equitable should have set policy values at rather less than asset values after a period of strong asset value growth. In fact, smoothing was 'across the peaks' rather than 'through the middle'. On any view the policy was one of full, if not explicitly over-full, distribution.

You may ask why a mutual society should seek growth - providing the best return to its policyholders is its aim. Growth imposes new business strain—new business costs money before it earns money. The answer lay in keeping down—indeed, reducing—unit costs. Labour costs skyrocketed; computer costs were astronomical. In those days of 'big iron' (large mainframes) necessary computer investments could only be justified by a big business base. Following the loss of its FSSU business, the Equitable had not the option of graceful decline into a tiny company. Such a company never could provide her policyholders with a half-decent return.

1957 the Equitable started selling retirement annuity (savings) policies. These had to be written as deferred annuities but were structured as with-profit (participating) endowments with a guaranteed annuity rate ("GAR"). The policy included a GAR at 4 percent—later 7 percent—interest to convert the accumulated single premiums to an annuity. Premiums were on a recurrent single premium basis and future single premiums would receive the same guaranteed terms. Guaranteed annuity rates applied not only to past premiums—but to future premiums, too. Both premium payments and retirement dates were flexible. Excess returns in deferment were distributed by way of reversionary bonuses. The guaranteed annuity rates appeared conservative and Equitable introduced a terminal (final) bonus which was applied at retirement to align the annuity with that which would be obtained from (better) current annuity rates ("CARs").

In 1993 guarantees were exposed by improving annuitant mortality and falling interest rates.

Recurrent single premiums proved a strong marketing feature for the Equitable as they gave policyholders flexibility compared with regular annual premiums; retirement dates were flexible, too. The Society came to be heavily dependent upon retirement annuities.

In July 1988 retirement annuity policies were withdrawn and replaced by Personal Pensions. Existing policies could continue to receive single premiums on the same terms and conditions as the original policy. Personal Pension policies did not include a GAR.

Subsequently, there was no differentiation between the policy classes in the level of bonuses declared despite changes in policy terms and dropping guarantees. The guarantees were neither charged for nor properly reserved for.

1990 saw UK inflation and interest rates decline significantly. In October 1993, as a result of falling interest rates, the annuity rates in the GAR policies began to exceed current annuity rates. This situation reversed in May 1994. But from April 1995 onwards GARs were increasingly more favourable than CARs. Equitable had introduced what came to be known as the Differential Terminal Bonus Policy (DTBP) whereby terminal bonus would depend on the form in which benefits were taken. In particular, where benefits were to be taken in GAR form, the terminal bonus was reduced in recognition of the additional cost of GARs over CARs.

The Society thought it inequitable for policyholders to take more out of the fund than their premiums had earned, i.e., their 'asset share'. Equitable

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therefore reduced the terminal bonus for policyholders exercising the GAR, until the annuities which their maturity values supported were at the same level as those policies not exercising their GARs. Policies without GARs were awarded the full terminal bonus but annuity rates applied were lower market rates.

Asset shares are the accumulation of premiums less expenses, allowing for the investment return earned for a group of similar policies. In making the calculations, the asset share would normally be charged for the cost of accruing guarantees, life cover etc.

Frequently explaining to policyholders that the policy proceeds would be based on asset shares, Old Equitable believed policyholders understood and accepted the need for differential bonuses.

Not all did! Dissident policyholders argued the final bonus should be the same whether the policyholder took the benefits in guaranteed annuity form or otherwise, and should not be reduced to reflect the cost of providing the guarantee. This reasoning regards a guarantee as an additional amount—not a floor. Yet no extra premium had been paid for the additional amount.

Dissident policyholders launched litigation in 1999. Finally, the case was argued before Britain's highest court - the Judicial Committee of the House of Lords—the Law Lords. Their Lordships ruled for the dissidents on July 20, 2000.

Who was to meet the cost of the award to the dissidents? Other policyholders are the only source of funds in a mutual. There being no estate, other policies must shoulder a burden of 1.5 billion GBP. Policies had to be reduced by 16 percent of the policy value as at December 31, 2000. In addition, there was to be no growth in policy values for the following six months.

The Law Lords' exercise of their powers was inequitable—indeed, irresponsible—they had no concern for other policyholders. More for some meant less for others. Is robbing Peter to pay Paul equitable? By legal fiat, Equitable Life became Inequitable Life. Actuarial navigators had sailed the ship too close to the rocks; a legal storm wrecked her.

The Old Equitable closed her doors to new business on December 8, 2000.

Equity had conflicted with Law—and Equity lost.

POSTSCRIPT:

The dissident GAR policyholders had shot themselves in the head.

Think of the Equitable as a tube of Smarties (iced chocolate). The teacher promises a group of children four each. But the tube is smaller than the teacher thought and, when the sweets are shared between the whole class, there are only enough for three each. The disappointed group demands the promise be kept. The only way to get the extra Smarties is by grabbing them from their classmates. After a scrap, nothing remains but mushy chocolate and broken icing.

R.I.P □

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The International Section in Orlando

By Cathy Lyn

The 2008 SOA Annual Meeting came to Orlando, Fla. on October 19. It was a true success with over 1700 attendees. The location was the Orlando World Center Marriott Resort, towering above more than 200 prime Central Florida acres—lush, green and beautifully landscaped, with devotion to native tropical plant life and nearly 7,000 yards of on-premise, championship golf right outside our front door. A significant feature for actuaries with young families and the roller coaster enthusiasts was the proximity to the Disney attractions.

This was a conference covering all practice areas and drawing actuaries from all parts of the globe. Countries represented outside of North America included Barbados, Bermuda, Brazil, China, France, Hong Kong, Jamaica, Japan, Korea (Republic of), Mexico, Switzerland, Taiwan, Trinidad and Tobago and the United Kingdom. The SOA Board of Directors, section councils and clubs take this chance to have meetings in person when most of their committee members are gathered in one place.

INTERNATIONAL SECTION DINNER

This year the International Section activities started off on the Sunday evening. The group of six council members, Bosco Chan, Alistair Cammidge and Cathy Lyn met for dinner with a few international friends, Jennifer Lin and Steve Su, originally from Taiwan and Ty Otsuka from Japan. Having a meal together is a treat for International Section council members since they only meet face to face once per year and the chance to socialise is a great opportunity. Ty's mobile phone did not work in Orlando so he feared he would not find the group in the Marriott's huge lobby full of actuaries who were checking in and finding friends and colleagues.

We tasted many dishes from the buffet spread in the Solaris restaurant and compared notes on our various experiences. Bosco, originally from Hong Kong, had moved jobs from Toronto to New York a few months ago. Jennifer had recently been elected President of the Chinese Actuarial Club.

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Ty chairs the overseas actuarial seminar committee of the Institute of Actuaries of Japan. Cathy had just flown up to Orlando from Jamaica and was finding the Florida weather a bit chilly.

OCTOBER 2008 COUNCIL MEETING

The International Section's council meeting took place on the afternoon of Monday October 20. We said au revoir to council members rotating off this year—Alex Kogan, Cathy Lyn and Liang Zhang—and welcomed new council members Joanna Chu, Alan Cooke and Peter Duran. Unfortunately, the new members could only join by conference call. This is an important meeting that sets the pace for the year.

After introductions and elections, we had a long agenda covering strategies and priorities for 2009 that would be developed in the context of the survey results. The officers elected are: Chair—Bosco Chan, Vice Chairs—Darryl Wagner and Rich de Haan, Treasurer—Peter Duran and Secretary—Alan Cooke. Also, there are changes to the newsletter editorial team. Michelle John hands over the editor duties to Carl Hansen and we welcome Genghui Wu as Assistant Editor.

Other matters discussed were the announcement of the Country Feature competition, *International News*, building momentum to the Ambassador Program, shifting the US GAAP Seminar Program to IFRS, sessions the section will sponsor at the SOA Spring meeting in Denver and the Health meeting in Toronto and the section's budget.

The Institute of Actuaries of Japan is planning to sponsor a seminar in the United States for Japanese actuaries. Ty formally asked the SOA and the International Section to assist with arranging meetings for the Japanese actuaries to network and discuss technical matters with actuaries practising in the United States. This is likely to coincide with the SOA Annual Meeting in October 2009 in Boston.

The council will meet through monthly conference calls until the 2009 SOA Annual Meeting.

THE INTERNATIONAL SECTION PROGRAM

As for last year's annual meeting, the 2008 conference was planned as a practical example of the **actuarial value ladder** to inspire members to action with three days of high quality education and strategic networking. The actuarial value ladder is a professional development tool that is a component of the foundation of the SOA Marketing and Market Development Plan. The objective of this programme is to enhance the image of the profession and encourage targeted leadership skill development.

In keeping with this goal, the International Section sponsored or co-sponsored two sessions and held a reception as part of the programme.

The sessions were

- **Capital Market Issues in a Global Society facilitated** by Cathy Lyn.

The presenters were: Aaron Hou, CFA, FRM, PRM, and Andrew D. Smith who both gave insight into the instability of the capital markets that gave rise to good discussion with the participants.

Over 50 participants registered to find out how the current turmoil in capital markets around the world could have a long-lasting impact on the actuarial profession. Will risk lead to opportunity?

Why do economic problems in one part of the world often spread to other places? How will global economic issues impact the insurance, healthcare and retirement industries? How will you personally be affected?

- **U.S. & European Views on the Revolution in General Purpose & Solvency Accountin**g facilitated by Tara J. P. Hansen

The presenters were Henry W. Siegel, FSA, MAAA, Hans van der Veen and Hans J. Wagner, FSA, MAAA.

There is a revolution taking place in insurance accounting for both general purpose and solvency statements. The speakers discussed those developments and the impact on the U.S. and European industries.
The International Accounting Standards Board (IASB) is working on a revolutionary general purpose accounting standard for insurance contracts. Industry groups from North America, Europe and Japan have been working with the IASB and other interested parties to develop a standard that would also be appropriate for solvency accounting. There are many important issues being discussed, and the various industry groups agree on many of them but disagree on others. Furthermore, the IASB disagrees with the industry on some very important issues that could significantly impact the financial well-being of the worldwide industry. The speakers discussed controversial issues where parties are taking different stands.
Both sessions got good evaluations and scored higher than the average for all sessions.

INTERNATIONAL SECTION RECEPTION

This event took the form of a cocktail reception with exquisite hors d'oeuvres, an open bar and KARAOKE! It was very popular with about 80 attendees gathered for a friendly evening of eating, drinking and singing.

The mood in the reception was full of excitement and anticipation. Attendees came expecting to understand and exchange ideas, share rich cultures from one another, and even more, make friends. Apart from the section members, two actuarial clubs and two actuarial associations co-sponsored the event and added depth to the flavour of the evening. They brought along slide shows for participants to see some background about these organizations.

International Association of Black Actuaries (IABA) is a non-profit organization and foundation, with members from the United States,

Canada, Caribbean and African nations. The core mission of the IABA is to increase the number of black actuaries and influence their successful career development, civic growth and achievement. The president, Jeffrey Johnson, represented IABA along with many of their members who came to the Orlando meeting.

The Chinese Actuarial Club (CAC) is a professional and social non-profit organization dedicated to serving members who are interested in development of financial markets in the North America and emerging market in Asia. Its mission is to provide networking opportunities across borders, sharing experience in the international

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community, and offering continued professional and personal development programs to enhance members' actuarial career growth. The president, Jennifer Lin, represented the CAC together with many CAC members who have an Asian heritage and are working in the United States.

The Caribbean Actuarial Association (CAA) and the Institute of Actuaries of Japan (IAJ) added more international mix, the CAA from the west and the IAJ from the east. Cathy Lyn, president elect, represented the CAA and Ty Otsuka represented the IAJ.

Mike McLaughlin, SOA president elect, has an international heritage having been born in Jamaica. He joined us for the welcome and the first song. Council members, led by Darryl Wagner, started the ball rolling with Bad, Bad Leroy Brown. To keep up the momentum, we gave out song sheets for "A Place Called the SOA" written by Mike Bell from Birmingham, Ala., to the tune of "The House of the Rising Sun." Mike could not attend the reception this year, but he was there in spirit through his song!

This was Genghui Wu's, first such reception as a new member of the International News editorial team. He very much enjoyed this great opportunity to network with fellow professionals, to better understand cultures of various actuarial communities, and to exchange views and news with friends. In fact, a group he joined had a very interesting talk on the current financial market, and how various organizations have been managing the risk of market volatility, as well as reducing hedging costs.

Jeff Johnson said: I thought the event was fun and well done. I really appreciated the opportunity to learn more about all of my co-sponsors and all the other attendees with an international interest. I am looking forward to the next opportunity to share some camaraderie, information about IABA and fun together.

Alistair Cammidge said: On behalf of the International Section I would like to say thank you to everyone who made the evening a success. The best event of the conference! Not only the most enjoyable—but the one at which I learned the most, by chatting to overseas actuaries and learning of their trials and achievements!

Bosco Chan said: We were all happy. People kept on singing until 9:15 p.m. and they kept on drinking and chatting until 10:30 p.m. We should definitely do it again next year.

In general, it wasn't only about the time we cherished on such a pleasant evening, but also the friendship we shared together. □

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Ambassador Update—Brazil 2008

By Ronald Poon Affat

BRAZILIAN UPDATE 2008

The year started off well enough, with the Reinsurance market opening to foreign players (April), and then one month later, Brazil was awarded Investment Grade status. However in spite of its newly acquired financial status, like most of the major world economies, the stock market (Bovespa) fell by 38 percent in local currency terms and the Brazilian Real plummeted from R$1.8 to R$2.35 against the US$. The economy is now projected to grow by only 1.5 percent for 2009. While the impact will be hard, Brazil is better placed than many others to whether the storm, if only psychologically, mainly because it has endured many crises throughout its turbulent financial history.

Regarding the life, health and pensions markets, the following is a quick summary of the main M&A activities during 2008.

- Itau and Unibanco financial groups announced a merger to create South America's largest private-sector banking group, forging a continental powerhouse the banks hope will become a global player. Each group already had a substantial insurance arm and the combined entity will create one of the super-bancassurers in the already banking dominated sector.

- After a very long hiatus of 'new' Life players in the market, AEGON signed an agreement to acquire a 50 percent interest in Rio de Janeiro based Mongeral Seguros; Brazil's sixth largest independent life insurer.

- AIG and Unibanco severed their 11 year partnership in Brazil, but AIG then re-entered the market as an independent 'boutique' P&C insurance company.

- Mapfre continued to invest in the Brazilian market and acquired Nationwide's Rio de Janeiro based life insurance company.

- Swiss insurer Zurich Financial Services acquired Minas Brasil Seguradora Vida e Previdencia. This is a regional Insurance company based in the third richest state.

- Met Life entered Dental Insurance via its acquisition of Sao Paulo based Odonto A Saude Empresarial.

- And last but not least, the opened Brazilian reinsurance market attracted players from the four corners of the earth. Mapfre Re, Munich Re and XL Re, established local reinsurance companies to compete directly with the government run IRB Re. Ace Re, Everest Re, Gen Re, Hannover Re, Lloyds of London, Paris Re, Partner Re, Scor Re, Swiss Re, TransAmerica Re, and TransAtlantic Re were amongst a very long list to establish Admitted Reinsurance companies.

So what does 2009 have in store for us? Clearly Brazil is the place to be in terms of reinsurance. The IRB (state monopoly) had R$2 billion of annual premium income and the next 12 months will see many players participating in what is still expected to be a growth area. Regarding growth in the direct writing insurance industry, there still appears to be optimism that there will be some positive growth but more or less in line with inflation (4 to 5 percent). The prospect of growth is reasonable given the fact that (excluding health) insurance still has a very low penetration in Brazil; it ranks 47th in the world with only 3 percent

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(Sigma 2008). Nevertheless the Brazilian market is still the largest market in Latin America and accounts for 44 percent of the region's premium. The world's multinationals are still very much present in the major Brazilian cities and there is no reason to bet against the fact that the Brazilians will continue to dominate the Latin American Insurance markets for a very long time.

The views expressed in this article are personal and are not necessarily those of my employer.

Ronald is the Society of Actuaries' Brazilian Ambassador. The SOA Brazilian country web page is located at

http://www.soa.org/professional-interests/international/intl-country-web-pages/intl-country-web-sites-brazil.aspx □

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Professionalism for Experienced Actuaries

By Chris Daykin

On December 3, 2008, the Caribbean Actuarial Association held a Professionalism Event for Experienced Actuaries at the Hyatt Regency Hotel in Port of Spain, Trinidad—the first such event ever to be held in the Caribbean.

The UK Actuarial Profession recently introduced a requirement under its Continuing Professional Development (CPD) arrangements that all qualified actuaries regulated by the Institute and the Faculty should attend a one-day professionalism event at least once every 10 years. The Caribbean Actuarial Association (CAA) decided to organize such an event in Trinidad on the day before the 18th Annual Conference of the CAA.

A primary aim was to meet the requirements of the UK Actuarial Profession within the Caribbean context and to avoid the need for Caribbean actuaries to have to travel to the United Kingdom in order to attend an event to fulfill the requirement. Of even more importance, it was seen as part of the CAA's commitment, as a newly admitted Full Member Association of the International Actuarial Association (IAA), to developing a broad programme of CPD, including professionalism education. The proposed programme proved very attractive and the 20 people who attended the event included several FSAs and one FCAS, as well as FIAs and FFAs.

The CAA was admitted as the 62nd full member of the IAA at the November 2008 Council meeting. Soon after this the CAA was delighted to welcome the President of the IAA, Dave Hartman, as principal guest at the Annual Conference in Trinidad.

The Professionalism Event was designed and led by Chris Daykin and Helen Gregson, who are both regularly involved in running professionalism courses and events in the United Kingdom. They were assisted by Tim Kimpton from Trinidad, who brought local experience and knowledge to the team, as well as having himself attended a Professionalism Event in the United Kingdom a few months earlier.

After a welcome from president-elect of the CAA, Cathy Lyn, the event started with a presentation on business ethics and the links to professionalism. There was a refresher on codes of conduct (including a multiple choice quiz), and presentations on topical professionalism issues and challenges, both from a global and a Caribbean perspective.

Probably the most enjoyable parts of the day were the sessions where the participants divided into smaller groups to discuss case studies. In the morning the groups tackled some case studies on generic professionalism issues, touching on issues such as conflicts of interest, speaking up, challenging another actuary in an appropriate way, communication, integrity, dealing with a dominant boss, and handling pressure.

In the afternoon the case studies were on practice-specific issues, with one group dealing with pro-

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From left to right: Dave Hartman, Daisy Coke, Winston St Elmo Whyte, Horace Johnson, Cathy Lyn, Astor Duggan, Chris Daykin, Helen Gregson

fessionalism issues in the life insurance context and two groups considering professionalism issues in pensions practice.

We were also treated to a very frank and open presentation on professionalism issues in practice from a highly experienced Canadian actuary, David Congram, FIA, FSA, FCIA. The participants related to many professionalism aspects in the account.

The level of participation was excellent, with good engagement in the case studies and lively discussion in the question and answer session. Feedback from all the participants was extremely positive. The idea of having such a refresher on professionalism after being qualified for some years was clearly recognized as a great idea. The post-qualification experience of participants ranged from three to 38 years, with some 16 years on average!

The event was closed by Winston St Elmo Whyte, current president of the CAA, who gave a warm vote of thanks and appreciation to all the speakers and organizers.

Next year the CAA is hoping to organize another one-day professionalism event on December 2, 2009, just before their 19th Annual Conference, which is scheduled to take place in Jamaica December 3-4. The 2009 professionalism event will be for associates and the CAA will aim to meet the requirements of the major associations for such a course. □

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Managing Insurance Business—A Peek into the Future

By Rotimi Okpaise

These are indeed both interesting and challenging times for Nigeria's Insurance Industry.

From being almost comatose a few years back, the insurance sector is fast expanding its risk base and has become a 'beautiful bride' to both local and foreign investors. The FSDH Insurance Index has risen by 24 percent already in 2008! This article discusses likely new expectations from management in view of the wider ownership—as they say—there is no free lunch!

This article is broadly developed from the practices of Life and Health Assurance but equally applies to Non-Life Insurance business.

OUR RECENT PAST

In 2004, the Central Bank of Nigeria instructed banks to re-capitalise by the end of 2005 to a minimum of N25billion (about USD20million). It seemed a tough requirement at the time and, eventually 25 banks emerged. Today no fewer than six (6) of these banks have paid-up capital in excess of N500billion!! This increased capitalisation has significantly transformed the level of economic activity in Nigeria—including the new ***active*** participation (ownership) of banks in the insurance sector.

In 2006, new capitalisation rules were also introduced in the insurance industry—N2billion for Life and N3billion for Non-Life business, this was from a base of N150million and N250million respectively. 49 companies met this requirement through business consolidations and a much wider equity ownership.

GDP per capital in Nigeria increased from USD 800 (2006) to USD1,300 (2007). The increase in the All Share Index was 38 percent in 2006 and 75 percent in 2007.

However, Life, Health and Household insurance premiums accounted for less than 0.3 percent of our GDP in 2006/7. It thus seems that there are significant opportunities to deepen insurance penetration if acceptable products can be designed and appropriate marketing programmes embarked upon—new capital will help finance these development needs.

A PEEK INTO THE FUTURE

Business growth and wider ownership structures will likely lead to (management) reporting challenges in the future. Quality people and adequate information systems need to be acquired to administer, manage and report on the increased business volumes. Shareholders will require more frequent and accurate information on the business trend and their **worth**. Hence operating ratios, the calculation of technical reserves and declared underwriting profits will be under more scrutiny than hitherto.

We illustrate below issues we believe management will in future, need to communicate in details to **stakeholders**—shareholders, investment analysts, rating agencies, and the regulator. We believe potential and current shareholders will wish to be appraised—as in other industries—of how the business 'adds up' and what efforts are being put in place to ensure value/worth is not eroded. Put another way, insurers will have to demonstrate how they manage risk!

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RISK MANAGEMENT

In our view, risk management will be a major contributor to the successful future of the insurance sector. Management will need to constantly review the adequacy of the premium rates, underwriting policies and Know Your Client (KYC) enquiries, reassurance programmes, investment policy, operating systems, processes, people etc.

We believe stakeholders will require companies to establish risk management principles—to identify the sources of business risk and install processes that will mitigate the risks jeopardising business objectives and Shareholders worth.

We give below some examples of risk and mitigating actions.

TYPE OF RISK	EXAMPLE	SOME MITIGATING ACTIONS
Market Risk	An adverse change in asset market values without a corresponding change in liability values.	Have a formal asset distribution policy, define sectorial distribution, and stock selection criteria. Match assets to liability profile.
Interest Risk	A change in the discount rate adopted in calculating liability values without matching changes in asset values.	Prudent Reserving Approaches
Insurance Risk	- An increase in mortality experience (e.g. group life). - An increase in life expectancy (annuity business). - Increase/decrease policy lapses etc.	Anticipate potential changes through prudent reserving
Operational Risk	- Inadequate premiums - ICT failures - Failure to reassure - Inadequate staff	- Review Rates - Document ICT processes, external backup sites, maintenance, etc. - Review administrative processes - Train staff, review recruiting and remuneration policies
Credit Risk	- Failure of reassurer - Failure of debtors (debt security/large broker/agent)	Have operational and financial criteria for choosing reassurers and debt securities
Liquidity Risk	- Failure to meet obligations due to cash flow strains or having illiquid assets.	- Asset liability matching - Secure adequate banking arrangements etc.

> "We anticipate 2009 to herald significant changes in the insurance sector."

EMBEDDED VALUE

The change in **end year reserves** directly impacts the declared underwriting profits and by implication the overall business profits, dividends and shareholders worth.

We anticipate that reserve calculation methods and their adequacy will in future need to be justified to stakeholders. The calculation methods will have to be scientific, independent of management and be in line with best global practice.

As in other territories we perceive stakeholders will require Shareholders Worth to be expressed as the **Embedded Value (EV)**, which essentially is

(A) The Adjusted Net Asset Value (NAV)—balance sheet NAV if assets and liabilities are expressed at their fair values

Plus

(B) The estimated future profits to shareholders from the business currently in force.

Typically, the EV will exceed the normally reported NAV.

Companies are beginning to privately calculate their EVs in Nigeria and we expect that as insurance market analysts and financial consultants get increasingly involved in the insurance sector, demands for companies published EVs will increase—as is happening in Asia, Australia, Europe and the Americas.

ECONOMIC CAPITAL

We foresee businesses/managers in the near future enquiring of the amount of **Capital** actually needed to be dedicated to insurance business—to reflect the projected business mix and growth over a review period (typically one year). This capital, called the **Economic Capital**, will reflect the entity's risk appetite and will, for instance, differ for identical companies with different reassurance programs.

In Nigeria, where capital requirements are presently high in comparison to technical liabilities the concept of economic capital will immediately be useful for the investment management of the Shareholders Funds. A relatively risk free approach could be adopted for the investment of the economic capital whilst a more risky approach may be adopted for the balance of funds, reflecting the degree of the enterprise's risk adverseness.

CONCLUSIONS

We anticipate 2009 to herald significant changes in the insurance sector.

We see….

- Management making significant investments in operating systems and people
- Active new product development efforts
- More educative and aggressive marketing efforts
- Significant business expansions occurring in 2009
- A relative influx of foreign potential core investors
- Improved financial reporting, especially a shift to EV reporting
- Increased regulatory alertness/requirements. The current "rules based" approach to capitalisation and reserves may yield to a "principles based" approach.

We estimate that 2010 will be the year of the 'big bang' with Life, health and household insurance premium incomes exceeding one percent GDP and at least three insurance companies recognised as being leaders in Nigeria's financial services sector.

For the insurance sector these are indeed interesting times!! □

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Agribusiness Reinsurance in Argentina—A "David and Goliath" Tale

By Javier Campelo

Agribusiness insurance shows a very promising growth potential in Argentina. Reinsurance plays a key role in the development of this type of insurance, being a source of capital for the industry. However, there are just a few reinsurers in the country working in the agribusiness field.

This leads to a situation resembling an oligopoly market. Proposals from different reinsurers have almost identical terms and conditions. Reinsurance premiums are much higher than those arising from technical actuarial calculations.

This is a story of a small insurance company in Argentina ("David") that attempted to determine optimal retention levels and the cost of different reinsurance programs by using actuarial techniques. The techniques used are those recommended by different actuarial organizations, such as those of the Society of Actuaries and Casualty Actuarial Society in United States and the Institute of Actuaries in England.*

INTRODUCTION

"David" is an insurance company located in a small city in Argentina. The company, with an 85-year-long experience in the insurance field, operates exclusively in hail insurance. As a legal entity, it constitutes a cooperative society. Both partners and members of the administration, representing the group of associates, are agricultural producers.

The insurance products that "David" offers to its associates include traditional insurance with a basic hail coverage and additionals for fire and replanting. Insurance policies with the same coverage but with decreasing deductibles are also provided. The products require a simple underwriting process and are oriented to small and medium agricultural producers.

The appraisal team is made up of more than 60 associates, highly trained, with wide-ranging experience and access to the latest technology. The appraisal manuals used by the company are continually reviewed by professionals of the National Institute of Agricultural Technology ("INTA") and foreign universities.

The company is very well-known within the insurance market and by agricultural producers. Its reputation comes from the number of hectares covered, the carrying out of its activities and its

* For those readers interested in further analysis, we recommend the DRM Research Handbook developed by CAS. The current draft of the Handbook is on the Dynamic Risk Modeling Committee Web Site (*http://www.casact.org/research/drm*).

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capitalization level. In that sense, "David" is one of the few companies in the market with an AA rating from the local agency "Evaluadora Latinoamericana S.A."

Together with the expansion of agricultural activity in Argentina, "David" embarked on its own expansion process, with the aim of incorporating new agricultural producers into the cooperative system and, at the same time, diversifying its portfolio. This expansion allows for significant risk diversification, both in terms of different zones and crop cycles.

THE DYNAMIC RISK MODEL

"David" developed a risk model for use as a decision-making tool within the process of setting governing policies and strategies. The model was built within the theoretical framework identified as 'Dynamic Risk Modeling' or 'Dynamic Financial Analysis.'

The loss model, one of the main components of the risk model, had these characteristics:

- Its structure comprised the definition of several random variables, taking into account frequency and severity functions for each crop in each zone. The crops considered for model building were the significant ones in the portfolio: wheat, sunflower, corn and soya.

- All the selected loss distributions, as well as their parameters, arose from "David" empirical experience and that of the global market. In each case, a goodness-of-fit test was performed to show that both selected distribution and parameters were adequate.

- The model specifications included a provision for modeling the association between losses arising from same-season crops (winter crops and summer crops) and the association of losses in different risk zones. The loss model features contemplated the use of 'Copula´s' for multivariate random variable treatment.

- Results were obtained via Simulation. This served to determine the loss distribution function for a certain crop in a given zone and for the total portfolio.

REINSURANCE PROGRAM CONSIDERATIONS

"David" envisions reinsurers as long-term partners. The company seeks to maintain strong ties with its reinsurers, considering mutual needs and benefits and a commitment to strengthening the relationships.

Bearing in mind the company's lengthy experience in agricultural insurance activity, the technical capacity developed and the company's profile, the use of a Quota Share reinsurance mechanism to administer the underwriting risk seemed unnecessary.

Reinforcing this statement is the consideration that, with the expansion of activities in new areas, the total loss distribution function was reshaped, and probabilities for the loss process yielding extreme values dramatically reduced.

In this sense, the company decided to continue with the long-standing Stop-Loss reinsurance program. The main point to be reviewed was the program's structure (priority, limit) and other terms and conditions applied for risk transference.

The loss quantitative model was used for measuring the value of the reinsurance agreement. The company's goal was to optimize the reinsurance program's efficiency, considering aspects such as: (i) the company's risk aversion level, (ii) the impact of reinsurance on its capital needs and (iii) the price of the reinsurance coverage.

CAPITALIZATION AND REINSURANCE

The company's capitalization level is one of the main variables to be considered when making reinsurance-related decisions. "David" established a target capital, taking into account its degree of risk aversion. That is, the target was defined as having a capital level such as to allow a certain probability to be sufficient to cover possible unfavorable losses.

"David" considers different methods for determining the capital required for its insurance activity. One of the measures used by "David" is the Tail Value at Risk. The TVAR (alpha) varies according to the distribution and the parameters selected for the risk and to the reinsurance program. Bearing this in mind, "David" calculated different values that would correspond for different levels of retention, as shown in the following table:

	TVAR (99%)	**Expected Loss Ratios**	
		Retained	Ceded
No Reinsurance	2.1	35.5%	0%
Limit 60% xs Priority 95%	1.61	33.6%	1.9%
Limit 60% xs Priority 75%	1.48	31.8%	3.7%

David's final decision paid a great deal of attention to i) its degree of risk aversion; ii) its present capital level and iii) its ability to support premium growth. Taking these into account, "David" selected the following program: Stop-Loss Cover. Limit 60 percent xs Priority 75 percent.

TECHNICAL COST OF REINSURANCE PROGRAMS

"David" attempted to determine the cost of different reinsurance programs by using actuarial techniques. This analysis was used by "David" in negotiating with its reinsurer ("Goliath") on terms and conditions for the renewal of its reinsurance contract for period 2007-2008. The following table compares the present value of the expected reinsurance premium arising from the reinsurer's different quotes:

Prior to analysis submission	Following analysis submission	Reduction
USD 485.000	USD 291.000	40%

CONTINUED ON PAGE 32

Agribusiness Reinsurance | from Page 31

CONCLUSIONS

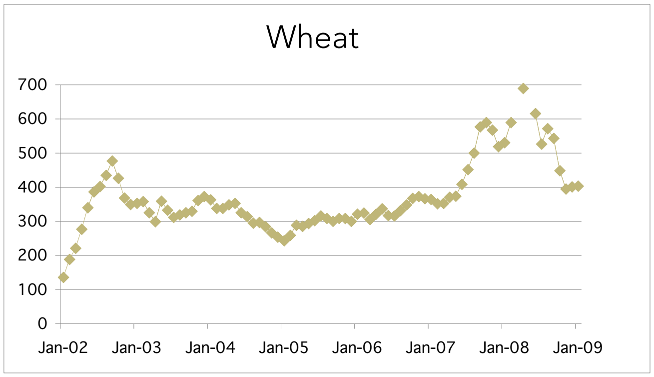
Agribusiness is the most important industry for the Argentine economy. About 37 percent of the GDP and 65 percent of exports in this country arise from agro-related activities.

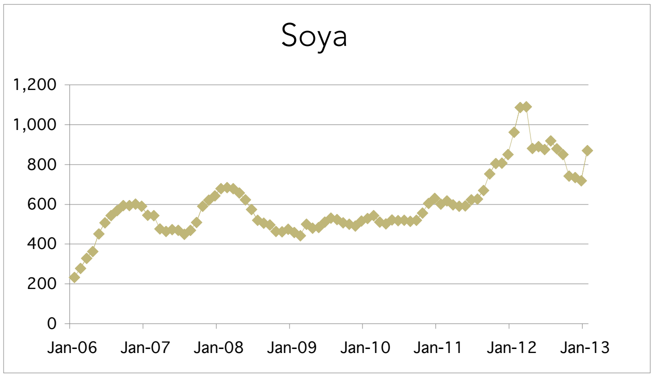
The national budget highly depends on this industry as well. Retentions on exports of agro-commodities are very high, reaching 35 percent for soya-related products.

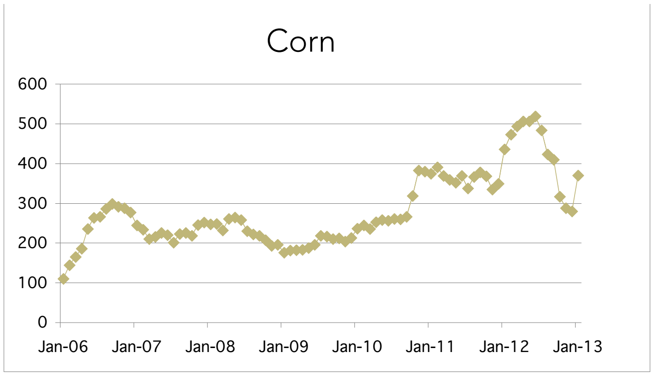
The prices of the agro-commodities exported by Argentina have shown very high growth rates in the last years, reaching record levels in January 2008, as shown in the following charts. This fact has contributed significantly to the recovery of the Argentine economy from 2002 to date, following the 2001/2002 crisis.

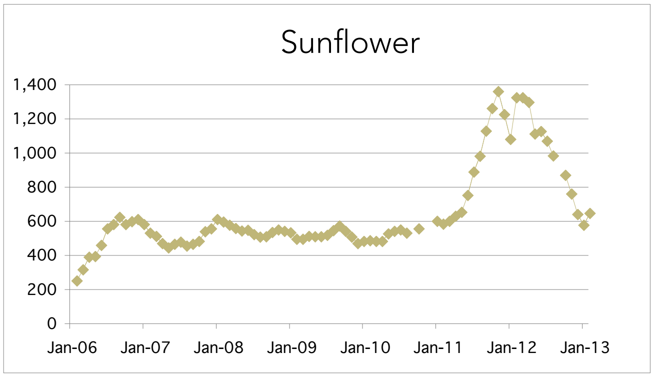
Argentine Pesos per Ton

(Source: "Rosario Stock Exchange")









"Insurance plays a key role in the industry's development."

Insurance plays a key role in the industry's development. Many small and medium agricultural producers would go bankrupt if they themselves had to afford hail-related damages in a bad year.

Reinsurance is vital in the development of this type of insurance, being a source of capital for the industry. We, consultants specialized in this field, have the responsibility to continue collaborating with our clients in providing effective tools for decision-making and for negotiating reinsurance terms and conditions.

This is a story of a small company in Argentina that determined optimal retention levels and the cost of different reinsurance programs by using the aforementioned actuarial techniques. □

SOA—International Section Survey

INTRODUCTION In June 2008, 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 better communicate and interact with our membership. We were encouraged by the volume of responses and the thoughtful input we received. The International Section met in late December 2008 to review the results of the survey and to incorporate the valuable feedback we received from you into our strategic plan for 2009. In this article, we share with you the results from the survey as well as areas the council intends to focus on in 2009.

SURVEY RESULTS

We received 353 responses from around the globe 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 our international members with responses from over 22 different countries. The right hand graph on Chart 1 shows a breakdown of international responses for countries that had more than 10 respondents.

MEMBERSHIP DRIVE

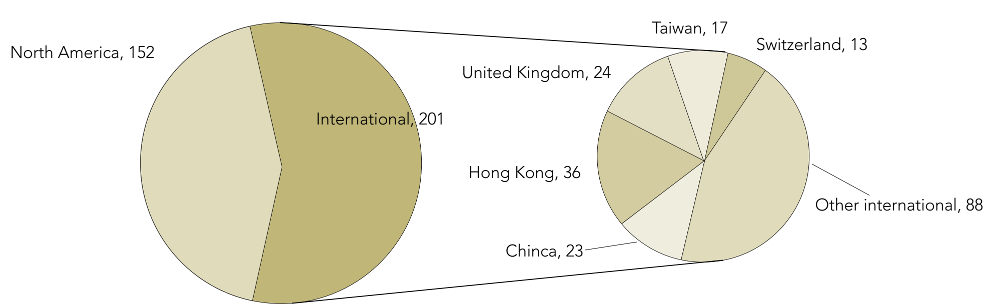
Whilst the survey was primarily targeted at section members, we were also keen to hear from non-members, and in particular to find out why they were not members and what would encourage them to become members. Chart 2 shows the breakdown of responses by section membership with around 30 percent of responses coming from non-members. Of the non-members responding, the vast majority came from outside North America and their encouraging feedback indicated that there is more the International Section should be doing to broaden our base internationally.

We asked non-members why they were not members of the section. The primary two reasons indicated were lack of awareness of the section (35 percent) and the fact that employers do no reimburse section membership fees (23 percent), which is something we suspected, but now had confirmed. For 2009, the section council has made one of our key initiatives to increase international membership. Part of this will be achieved through better awareness and communication (see page 35 for a discussion of our ambassador program) as well as certain membership incentives which we intend to roll out throughout the year.

SEMINARS AND MEETINGS

The section has historically 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, Economic Capital and Solvency II, Enterprise Risk Management, and International Financial

Chart 1: Survey Responses by Location



> "...around 90 percent of respondents were not aware of who their local ambassador was..."

Reporting Standards. The top three areas of interest for North American respondents were the same except for the order of priority; they were International Financial Reporting Standards, Economic Capital and Solvency II, and Enterprise Risk Management. The seminar planning committee is discussing these findings with the Financial Reporting and Risk Management Sections and is looking to incorporating some of these topics in the seminar schedule for this year.

AMBASSADOR PROGRAM

The section has run an ambassador program for the last few years where local ambassadors are appointed by the council based on their involvement in the local actuarial community and their desire to develop a stronger bond between the SOA and that community. We were keen to obtain feedback on how effective the program has been to date.

The survey results showed (see Chart 3) that around 90 percent of respondents were not aware of who their local ambassador was, and even for those that knew who the ambassador was, only 17 percent had actually had interaction with their ambassador in the last year.

As a result, section leadership is undertaking the following initiatives in 2009:

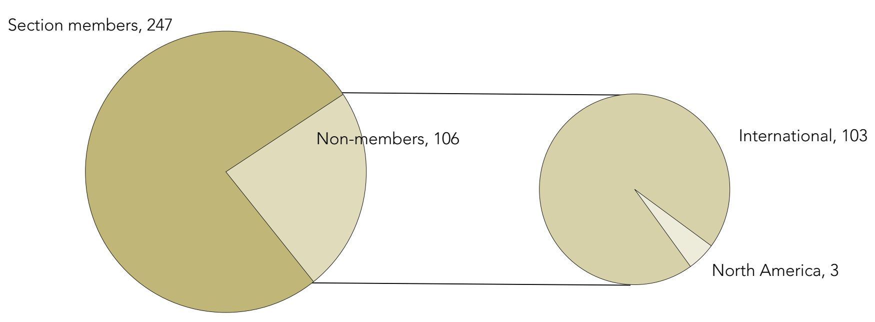
- Revisiting who our local ambassadors are and reestablishing their commitment to the role.
- Identifying countries where we have substantial membership without a local ambassador and seeking a suitable candidate.
- Positioning ambassador coordinators, members of section council, to have more regular contact with local ambassadors and providing them more tools to actively communicate with local members.
- Providing, where appropriate, financial support to ambassadors to facilitate networking events.

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

COMMUNICATION

The Society of Actuaries and the International Section leadership wanted to know how well members felt they were connected to the SOA and whether members received sufficient communication from the section. Somewhat predictably, the responses showed that international members felt less well connected and they lacked sufficient communica-

Chart 2: Survey Responses by Section Membership



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International Section Survey … | from Page 35

Chart 3: International Section Ambassadors

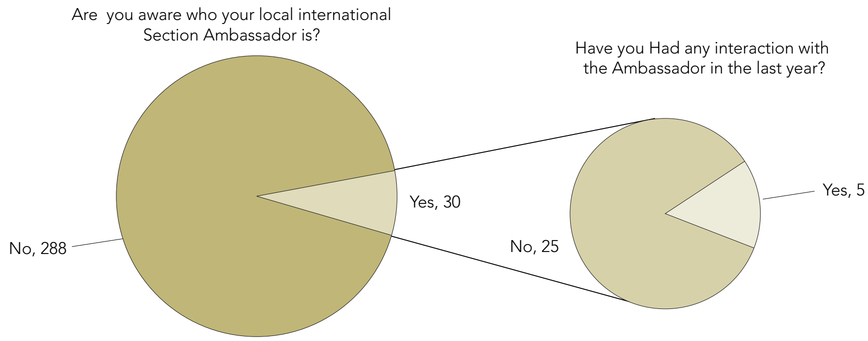


Chart 4: How well do you feel connected to the SOA?

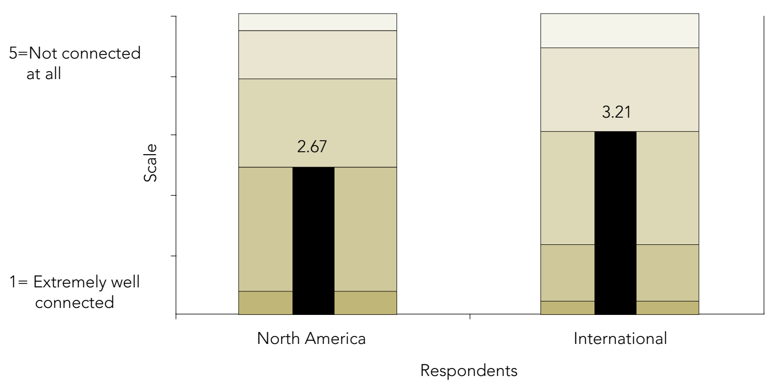
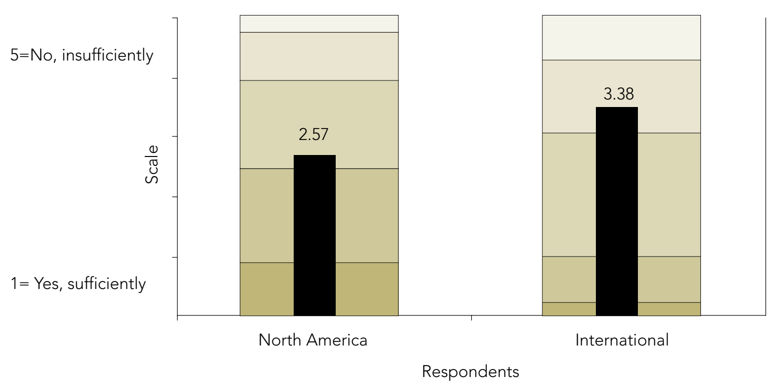


Chart 5: Does the International Section sufficiently communicate with you?



tion when compared with their North American counterparts (see Charts 4 and 5).

In addition to the sections primary membership communication tool, the section newsletter (see below), the council agreed to look into ways to improve and have more regular communication 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, *International News*, 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 were

For more information on the survey, please contact Rich De Haan at *rich.dehaan@ey.com.*

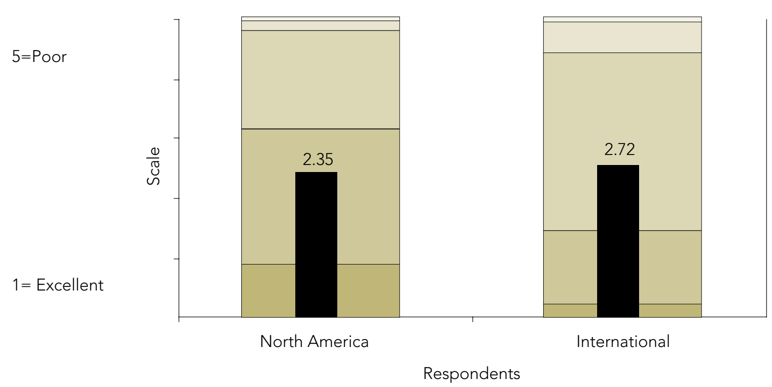
very encouraged by the feedback you provided. On a scale of 1 being excellent to 5 being poor, North American respondents gave the newsletter an average rating of 2.35, and international respondents gave an average rating of 2.72 (see Chart 6).

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 membership of the International Section. ☐

Chart 6: How do you rate the articles and content of the Section newsletter?



Maggie Gwaze is an actuarial analyst at Sovereign, in New Zealand. She can be reached at *maggie.gwaze@sovereign.co.nz.*

I Survived my First Conference

By Maggie Gwaze

As a student attending my first actuarial conference, I was not sure what to expect.

My manager had hinted to me that I should perhaps submit a post-conference summary of what I had learnt. With the fear of summarising the conference looming over my head I made sure I would read the synopsis and papers for sessions I had planned to attend. Despite my diligence, I still expected the whole experience to be daunting.

Non-actuaries would probably joke that 120 actuaries in a confined space implies boringness and morbidity. However, what struck me on my arrival at Taupo was the friendliness and candid nature of the delegates I met. Being fairly new to New Zealand, it was also a great way to meet new people in the industry whilst being in Taupo compliments of the company and of course to see my workmates getting their dance groove on at the conference dinner.

The programme lived up to its promise of being both entertaining and providing a wealth of knowledge. It was a relief to know that not every presentation consisted of alphas, betas and complex actuarial theory. After the conference I knew how much gold was left in the world, how many actuarial jokes can be successfully slipped into one presentation and I'm sure after the talk on actuaries in the community, I wanted to join "Actuaries sans Frontiers."

Despite my preconceptions of everyone around me being totally engrossed in plenary sessions, actuarial papers and presentations, everyone I approached with a question, no matter how complex or trivial, gave me all the time and attention I needed in a relaxed and friendly manner. In some instances I found myself standing around people much more experienced than myself, when I wasn't asking questions I put on my intelligent look and nodded my head vigorously in an attempt to seemingly understand the conversation.

Apart from the sessions, informal discussions with actuaries and fellow students proved to be an invaluable source of information about the industry and the different areas of work.

By the end of the fourth day we had been fed and watered nicely. New friendships had formed and by then I knew the maximum number of actuarial jokes any human being should know—six (five too many). I gathered that only accountants enjoy actuarial jokes as this gave them a sense of apparent social superiority over actuaries.

DAY 1

After a four hour drive from Auckland, I only had five minutes to unpack my bags and headed straight to the AGM. After saying 'aye' a few times, we quickly moved onto the first plenary session. I was incredibly tired but found myself daydreaming about the wine tasting that was to follow.

DAY 2

A problem with hot water in the wing I was staying meant a few actuaries went with a cold shower that morning. I chose jet boating as my social event and I recall sitting in the boat and thinking to myself, "doing wheelies in a jet boat sure does beat an afternoon in the office."

DAY 3

With six sessions in one day, this day was by far the most exhausting. By the time we got to the afternoon sessions, delegates were slumped in their chairs with eyes half- closed practicing what looked like subliminal learning. I did not have the luxury of subliminal learning as the possibility of writing a summary of the conference was still an imminent threat.

The conference dinner that evening, was yet another networking opportunity. It was an interesting evening as I danced to music older than myself and was glad that this brief retro moment in my life would remain in Taupo. I also said to one of my colleagues, "thank goodness actuaries don't have to rely on their dancing skills to make a living!"

DAY 4

I do not usually attend actuarial sessions on a Saturday morning but there is a first time for everything. In between gobbling down my brunch I found the final session more easy-going than I expected and an appropriate close to the conference.

I thoroughly enjoyed the conference and certainly look forward to the next one. □

International News **Announcements**

JOINT REGIONAL SEMINAR IN ASIA "PRACTICAL ACTUARIES AND FINANCIAL REPORTING"

Jointly organized by the Society of Actuaries China Region Committee, Faculty & Institute of Actuaries and Institute of Actuaries of Australia with the support of local actuarial bodies, this Joint Regional Seminar is designed to assist actuaries in meeting CPD requirements. It will be held in four Asian cities and the seminar schedule is as follows:

Dates	**Locations**
July 13-14, 2009 (Mon-Tue)	Kuala Lumpur
July 15-16, 2009 (Wed-Thu)	Taipei
July 17, 2009 (Fri)	Hong Kong
July 20-21, 2009 (Mon-Tue)	Beijing

Check the Web site *www.actuaries.org.hk* for latest information.

15TH EAST ASIAN ACTUARIAL CONFERENCE

Soul, Korea
October 12-15, 2009
The Institute of Actuaries of Korea is organizing the 15th East Asian Actuarial Conference (EAAC) in Seoul. The biennial conference offers the opportunity for actuaries from the Asia region to get together and discuss various actuarial issues. More information will be available soon.

CARIBBEAN ACTUARIAL ASSOCIATION CONFERENCE

December 3-4, 2009, Jamaica
Please join us for an interesting scientific program with good CPD content and Caribbean hospitality. Further details will be posted on our Web site, *http://www.caa.com.bb/*

IAA ASTIN SECTION COLLOQUIUM

Helsinki, Finland
June 1-4, 2009
www.actuaries.org/ASTIN2009/

IAA LIFE SECTION COLLOQUIUM

Munich, Germany
September 6-9, 2009
www.actuaries.org/Munich2009/

IAA AFIR SECTION COLLOQUIUM

Munich, Germany
September 8-11, 2009
www.actuaries.org/Munich2009/

IAA PBSS SECTION COLLOQUIUM

Tokyo, Japan
October 4-6, 2009
4thpbsstokyo.visitors.jp/

THAI ACTUARIAL GATHERING

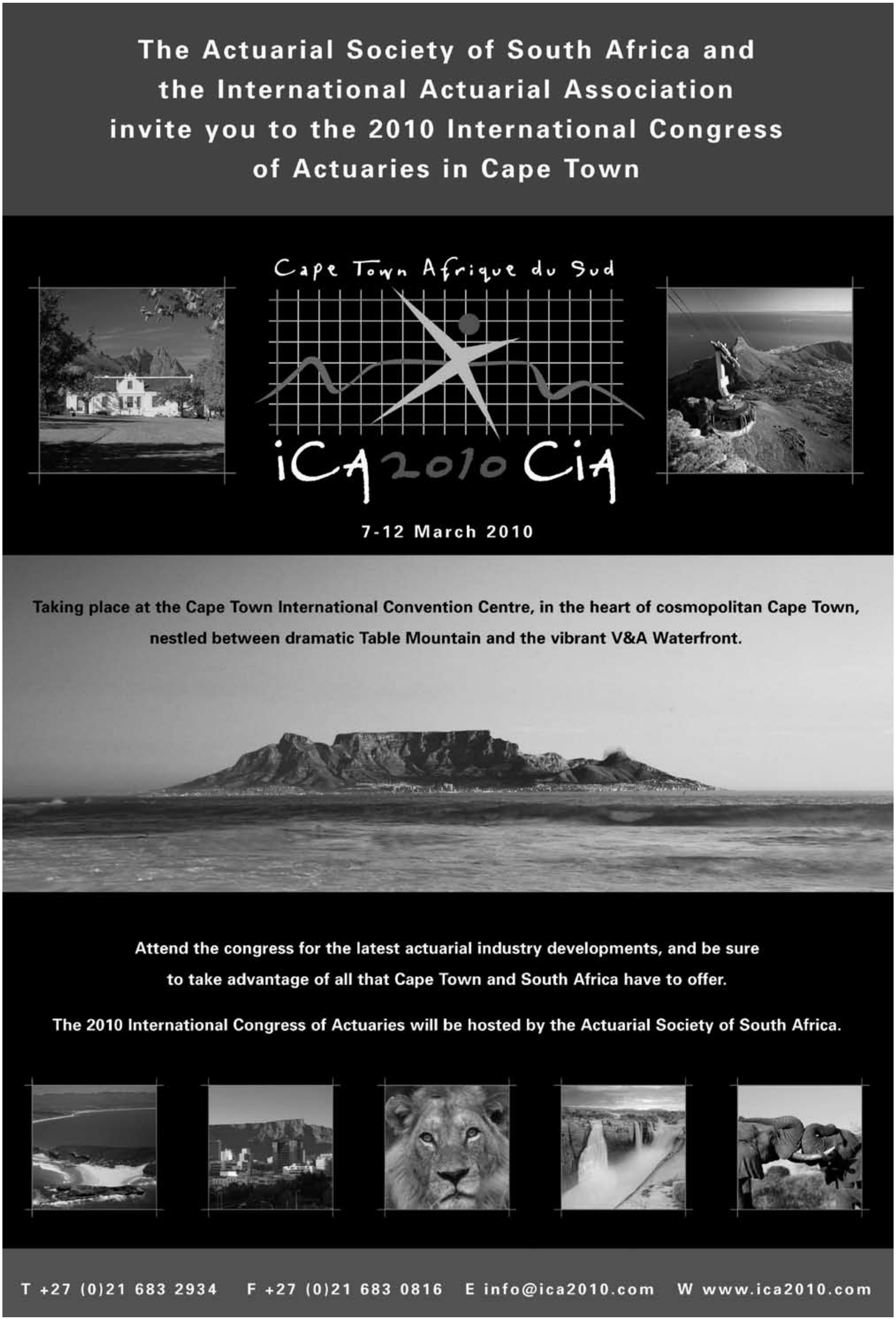
Bangkok, Thailand
http://www.sawasdeeactuary.com/tag2008.html

SAA INTERNATIONAL SUMMER SCHOOL

August 10-14, 2009, Switzerland
The Swiss Association of Actuaries (SAA) will host a course on "Monte Carlo Methods and Applications in Finance and Insurance Models" at the University of Lausanne, Switzerland. In this course, we present new efficient Monte Carlo methods (such as multi-level Monte Carlo) and classical variance reduction techniques as well as numerous applications and illustrations in finance and insurance. The lectures are complemented by computer exercises, for which no prerequisite knowledge is needed.

SWISS ASSOCIATION OF ACTUARIES

For various continuing education events, please visit:
http://www.actuaries.ch/de/60_veranstaltungen_sav/00_veranstaltungen_sav.htm


The Actuarial Society of South Africa and
the International Actuarial Association
invite you to the 2010 International Congress
of Actuaries in Cape Town
Cape Town Afrique du Sud
iCA 2010 CiA
7-12 March 2010
Taking place at the Cape Town International Convention Centre, in the heart of cosmopolitan Cape Town,
nestled between dramatic Table Mountain and the vibrant V&A Waterfront.
Attend the congress for the latest actuarial industry developments, and be sure
to take advantage of all that Cape Town and South Africa have to offer.
The 2010 International Congress of Actuaries will be hosted by the Actuarial Society of South Africa.
T +27 (0)21 683 2934 F +27 (0)21 683 0816 E info@ica2010.com W www.ica2010.com

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