SOCIETY OF ACTUARIES International Section

International News

ISSUE 48 AUGUST 2009

Actuaries
Risk is Opportunity.®

International News

ISSUE 48 AUGUST 2009

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

First of all, I am pleased to welcome Alan Cooke to the International News editorial staff. Alan also serves on the International Section Council. Welcome Alan! It is always nice to have willing volunteers.

Depending on when you are reading this, you may still have time to vote in the Society of Actuaries elections. I encourage you to participate in the process, by voting this year, or by running for a position in the future. I will finish my three year term on the International Section Council in October. It has been a good experience, but the time went very fast. During the last few years, I worked with many enthusiastic people with great ideas. The immediate future of the International Section is in good hands. The longer term future depends on a new group of people stepping forward to represent the membership. Please consider being part of that new group of leaders.

In this issue of International News, we feature the first of our articles for the 2009 Country Feature Competition—"A Flourishing Career on the Island of Aphrodite" by Nicholas Kallis and "A Beautiful Opportunity: A Brief Overview of the Brazilian Life and Annuity Market" by Michael Witt. The council was very pleased with the number and the overall quality of articles submitted this year. Look for more entries over the next two or three issues. Congratulations to Nicholas for winning the competition. I hope you will agree that the competition entries are all excellent articles.

One of the fun things about working on International News is the diversity of the articles we publish—by country, by topic, by actuarial discipline, etc. This issue is a good example as we cover a wide variety of topics representing (at least) four continents. We aim to inform our diverse readers of recent international activity, upcoming events, and developing issues in selected countries or regions around the world. Thank you to all of our authors, some who replied on very short notice. International Section members and our other contributors consistently rise to the occasion when asked. □

Carl Hansen, FSA, FCA, MAAA, is executive director of Abelica Global based in Seattle, Wash. He can be reached at *carl.hansen@milliman.com*.

Bosco Chan, FSA, FCIA, FCA, is assistant vice president and actuary at MetLife in New York, N.Y. He can be reached at *bchan@metlife.com*

Chairperson's Corner

By Bosco Chan

By the time you receive this August edition of the International News, we will have already entered the critical moments of our 2009–2010 section election.

There are three open positions in the International Section Council this year, each with a three year term. Eleven candidates had expressed interest in running for the council which translated to 3.7 candidates per open seat. This is the highest ratio if we were to measure against our own records in recent years. In comparison with other sections' ratios this year, we are in the top tier. There is also a diversified background amongst our candidates with work experiences that span vast geographic areas such as Brazil, Canada, Caribbean, China, Japan, Kuwait, United Kingdom, and other countries. Their multi-cultural experiences and global perspectives will bring new ways of executing decisions and allow us to provide better service to our members. The council is very excited and feels encouraged by the terrific responses.

The election is an important annual section activity. As the most important element in building sustainable business and operations is people, it is the council's goal to recruit the right match and the best people in order to deliver superior performance. Having council members with insightful vision and proven track record for execution will make us undefeatable.

On March 16, a blast e mail was sent out to search for leaders among our membership. Three-quarters of the candidates had immediately expressed interest in running for the International Section Council and the remaining one quarter spoke up right before the April 21 deadline. The council had reviewed each candidate's background and professional experience and then chose eight diverse individuals to be included in the ballot. Those selected candidates were asked to prepare a biography with up to 200 words for the election ballot by June 12.

The section council elections will be conducted electronically in August. All SOA members with a valid e mail address in the SOA database will receive a password for electronic voting. Paper ballots will be distributed to those without valid e mail addresses or who prefer paper ballots. Section members may cast one vote for each open position. Affiliate members do not have voting privileges. Polls close on August 24 and candidates with the most votes will win.

Newly elected International Section council members will be invited to join the council's monthly conference call in September and then officially take office at the end of the SOA Annual Meeting in October. Alistair Cammidge, Carl Hansen, and I will retire from the council at that time; the three of us will miss our time spent serving the council. Alan Cooke, Darryl Wagner, Joanna Chu, Joe Chou, Peter Duran, Rich de Haan, and the newly elected council members will lead the council to achieve the next milestone.

There has never been a better opportunity to demonstrate our leadership than there is right now in this changing economic landscape. As chairperson, I strongly urge you to vote and help to make a difference in the future of the council. It is my belief that you and I together can plant the seed toward our mutually owned future. ☐

Nicholas Kallis ASA, MAAA, is associate actuary at Milliman in Atlanta, Ga. He can be reached at *nkallis@hotmail.com.*

A Flourishing Career on the Island of Aphrodite

By Nicholas Kallis

Would you consider working as an actuary on the island where the mythological Greek Goddess of beauty and love was born? Cyprus is a relatively small island but it is the third largest island in the Mediterranean. It is almost the same size as the state of Connecticut in the United States, with a population of about 800,000. Cyprus has an open, free market, services based economy. Its business environment reflects both the past and the future. From an agricultural and merchant based economy, Cyprus has evolved into a dynamic export oriented country, a major leisure and tourist location and an important international business, financial services, and investment fund center. Its accession as a full member to the European Union as of May, 2004 has been an important milestone in its recent economic development.

Cyprus is classified among the high income countries in the region and worldwide. The island has had a record of successful economic performance. It has a standard of living that is higher than some other European Union member countries and the performance of the economy compares favorably with that of most other EU countries. Cyprus holds 16th place worldwide in terms of per capita income.[1] The success of Cyprus in the economic sphere is attributed, among other things, to the adoption of a market oriented economic system, the pursuance of sound macroeconomic policies by the government, as well as the existence of a dynamic and flexible entrepreneurship and a highly educated labor force. The economy benefits from the close cooperation between the public sector and the social partners.

Believe it or not, the actuarial profession does exist! Since the early 1990s, that is. Prior to that, none of the local insurance companies had an internal actuary, and insurance companies and pension funds basically contracted any actuarial related work to foreign based consulting firms. Since the 1990s, the actuarial profession in Cyprus has been growing but it has not reached its highest point as of yet. All major insurance companies have internal actuaries on staff, and most pension funds maintain local actuarial services. While actuaries are still few in number, for a country of 800,000 inhabitants, the growth potential is tremendous.

Several major, internationally recognized consulting firms have set up offices in Cyprus to take advantage of the growing business opportunity that exists. Private sector companies as well as government programs like the Pension and Social Security System are more in need of actuarial services than ever before. They are realizing that there is no such thing as an easy answer to complicated financial questions. They are starting to see the value of actuarial services. Actuaries are providing deeper knowledge and tools to take control and manage demanding financial challenges and risks. It is becoming more critical for companies on the island to understand and stay in tune with the changing climate of their business. They want to achieve competitive advantage and adapt quickly to the evolving regional and global business environment.

Actuaries in Cyprus are involved in the international business scene. They are recognized and respected in both the private and public sectors. In 1993, a group of Cypriot Actuaries formally established the Cyprus Association of Actuaries (CAA) to promote recognition for the profession and the skills of actuaries. Among its chief objectives is to set, govern and safeguard the code of professional ethics and conduct of its members

> "While actuaries are still few in number, for a country of 800,000 inhabitants, the growth potential is tremendous."

in relation to the practice of the actuarial profession. CAA is a full member of the International Actuarial Association (IAA) as well as a member of the Groupe Consultatif Actuariel Europeen (GC). IAA is a worldwide association, founded in 1895, for the purpose of regrouping regional professional associations to encourage the development of a global actuarial profession. GC was established in 1978 to bring together the actuarial associations in the European Union (EU) to represent the actuarial profession in discussion with the E U institutions on existing and proposed EU legislation which has an impact on the profession. According to the CAA, there are about 20 fellows, approximately 12 associate and a few actuarial students currently practicing on the island. They are educated in the United Kingdom or the United States. Life insurance and pension are the main actuarial areas these actuaries are practicing in with a few in property and casualty insurance (non life).

Cyprus has a highly developed insurance industry which is growing alongside the banking and investment funds business. In 2007, the total direct premiums written in Cyprus amounted to US$891 million. Out of this amount, US$486 million accounted for non life premiums and US$405 million accounted for life premiums.[2] The accession of Cyprus into the European Union has led to major amendments of the insurance legislation and opened up more growth opportunities. Insurance companies set up in an EU member state can carry out insurance business in Cyprus under the freedom of establishment/services provisions. Cyprus insurance and reinsurance companies benefit from a sound legal and regulatory framework with the "Superintendent of Insurance" safeguarding the high quality of insurance/reinsurance operations.

Currently, there are not a lot of health actuarial opportunities due to the fact that Cyprus' health care system falls under the social protection scheme. Even though Cyprus ranks fairly high in international comparisons of health and health care standards, there are a lot of improvements to be made in the current health care system. Many believe that the organization and management of the system is outdated and inefficient. These shortcomings have created opportunities for expansion of the private health sector. In many cases, even those who are eligible for free medical care from the public sector choose to purchase health services from the private sector. Demand for private health care in Cyprus is particularly strong among younger age groups and wealthier households. In recent years, increasing demand for private secondary health care has led to the creation of private clinics with facilities for specialized treatment. This situation is reflected in the fact that public health provision in Cyprus accounts for less than 40 percent of the overall health expenditure, a very low proportion compared to the other EU countries. The health system in Cyprus faces many challenges. There is a need to develop a national benefits package. There is also a need to ensure adequate payment mechanisms and associated incentives for doctors and hospitals. Currently, there is little incentive to function efficiently and economize due to payment mechanisms of fee for service for doctors, and open ended payments for hospitals. The Cypriot population is ageing, with important implications for the health care system, specifically reduction of the labor force, shrinking social security revenues and potentially increasing health care costs. There is no

CONTINUED ON PAGE 6

A Flourishing Career … | from Page 5

developed market for health insurance. There are inadequate facilities for continuing medical education. There is no comprehensive health data collection mechanism and information and technology should be improved, particularly in hospitals. There is inadequate inspection and control of private sector services. Hospitals require new management systems for improved efficiency and quality. All the above are creating opportunities for health actuaries to play a vital role in this needed change and assist in the delivery of a financially sound, quality driven health care system.

Cyprus has a great system of education, including a recently established University and several Colleges. The University of Cyprus does not have a school of actuarial science. The math department could expand to offer classes to students interested in taking the actuarial exams offered twice a year. The Society of Actuaries has already established Nicosia, the capital, as one of their international exam centers. Therefore, there are plenty of academic opportunities as far as actuarial science is concerned.

The Cyprus government is heavily promoting the country's credentials as a location for both company regional headquarters and as a bridge between the European Union (EU) and the increasingly important markets of the Middle East. Although English is widely spoken on the island (by around 90 percent of the population), some employment areas are closed unless you speak fluent Greek. As mentioned earlier, many international and local companies have established operations on the island. Working conditions are considered good, with pleasant and secure workplace environments. Working hours vary by sector and profession. Most offices and businesses work from 8 a.m. to 5:30 p.m., with a break from 1 p.m. to 3 p.m. On average you are entitled to a minimum of 20 days paid vacation, negotiated by collective agreements, with a further 15 days of public holidays. There is definitely a good balance of working and non-working life. The culture of the island is very family oriented, which allows for a strong balance between work and life. This aspect reflects a high level of work satisfaction which is an important factor for achieving high productivity.

Even though Cyprus is small, it is a year round island. Cyprus is more than just a place for lounging in the sun. There are a lot of things happening in Cyprus all year round. From cultural performance with big name stars, sports events to participate in or watch, religious festivals with all the pomp and circumstance of the Greek Orthodox Church, to informative international conferences. You would be surprised at what you can enjoy. With one of the best climates in the world, as well as one of the healthiest diets, not to mention a way of life that's geared to the outdoors, Cyprus is a great place for healthy living. An expansive coastline provides a wide variety of beaches to choose from, ranging from secluded bays, to lively resorts, sandy beaches and rocky coves and caves. With its richness of history, it is hardly surprising that Cyprus has developed a character which is quite unique. It is blessed with beauty that ranges from golden beaches of the Mediterranean to rolling hills and forest clad mountains that have many picturesque villages.

Cyprus has just a few qualified actuaries, making the profession rare in the country. However the country is at a point in time when financial services desperately need scientifically sound projections for strategic management decisions. It can be challenging to consider an actuarial career on a tourist destination Mediterranean island like Cyprus. However, it can be rewarding in terms of growth/opportunity potential and living/lifestyle aspects. Indeed an actuary in Cyprus can have the best of both worlds. □

Sources / References

(1) IMF Advanced Economies List. World Economic Outlook, Database - WEO Groups and Aggregates Information, April 2008.

(2) Insurance Information Institute – International Insurance Fact Book

MARK YOUR CALENDARS 3–4 DECEMBER 2009

The CAA will host its 19th annual conference in Jamaica this year.

Many sessions are designed to qualify for Continuing Professional Development

Extra!

We are offering an Associate Professionalism Course on 2 December 2009. This course will meet the Professionalism requirements of the Caribbean Actuarial Association.

The conference will be held at The Rose Hall Resort and Spa, A Hilton Resort. (http://www.rosehall-resort.com/)

Registration Fees are due before 2 November 2009 to qualify for discount* (US$100 for all except students and US$50 for students)

Category	**CAA Members**	**Non-Members**
Actuaries (Fellows)	US$650 (550*)	US$750 (650*)
Students	US$250 (200*)	US$650 (550*)
Other	N/A	US$650 (550*)

Come and experience Caribbean hospitality and cuisine while networking with Caribbean actuaries and their colleagues from around the world, sharing ideas and learning from experts in a wide range of practice areas.

Visit our Web site for more details.

Update on the SOA International Experience Study

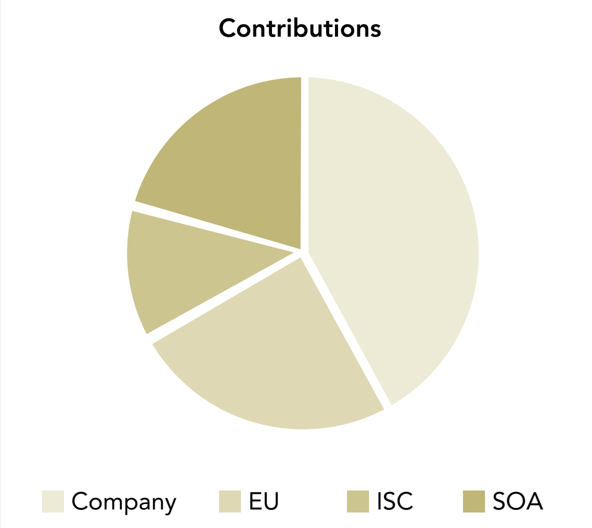
William Horbatt, Dieter Gaubatz, Phil Lehpamer, Nasir Whaind, Fouzia Boussetta[1]

The Society of Actuaries International Experience Study (IES) initiative is in its seventh year.

During that period, considerable progress has been made expanding experience studies into less developed parts of the world. This article presents the most recent preliminary results from Argentina, the Caribbean, the Philippines, Poland and Vietnam.

BACKGROUND

The IES started under the umbrella of the SOA International Section Council (ISC), in response to its members' desire for credible actuarial experience outside more developed countries. The SOA Research Department formally joined the effort by providing funding and staff resources. In addition, several companies have provided financial support for the development of an experience study tool programmed in Microsoft Access/Excel. The European Technical Assistance Programme for Vietnam also provided financial support for the Vietnam study. The graph below shows the distribution of funding by source, although it ignores the countless hours devoted by volunteers in countries and within the IES working group.



The vast majority of the funds (82 percent) were invested in the development of the Microsoft Access/Excel "tool." The balance was spent on travel expenses, marketing and assisting country actuaries in performing studies.

[1] The authors are members of the SOA International Experience Study Working Group (IESWG)

The vast majority of the funds (82 percent) were invested in the development of the Microsoft Access/Excel "tool." The balance was spent on travel expenses, marketing and assisting country actuaries in performing studies.

APPROACH

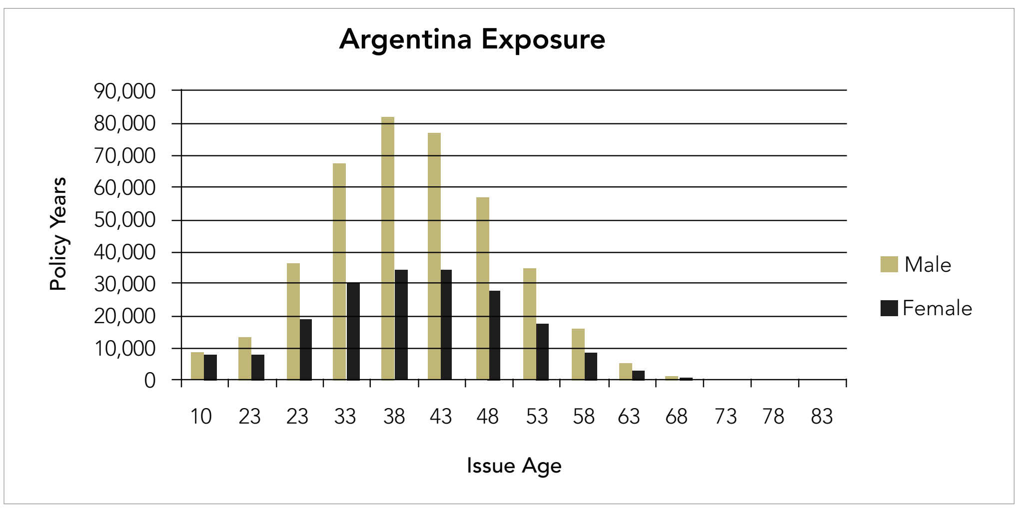
The IES has evolved into a country model in which the SOA and the country actuaries jointly share responsibilities to successfully complete a mortality and persistency study of insured life experience. Local actuaries, either the local actuarial society or an "ad hoc" working group, determine the parameters of each study. Then each participating company populates Microsoft Access tables with company specific seriatim policy data. The SOA provides each company with a copy of, as we refer to it, the IES "tool." It is written in Microsoft Access/Excel. This tool produces summary reports from the company inputted data. These reports are confidentially compiled by the SOA. The resulting aggregate data is returned to the local actuarial group for their review. The IES tool is provided to each participating company at no charge under the single condition that permission is given to publish the combined results of the study.

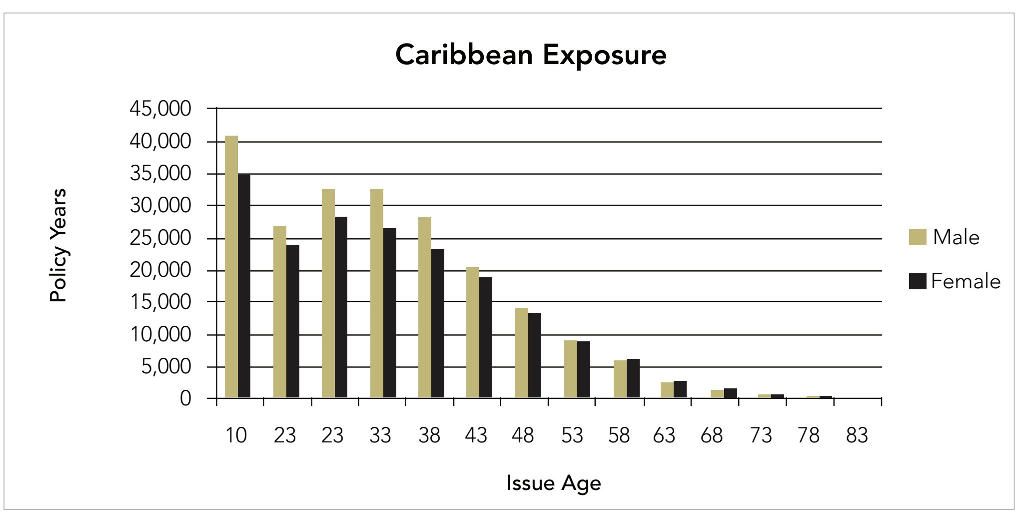
The SOA and IESWG volunteers support these efforts by assisting company actuaries when questions arise and in compiling and reviewing data. SOA Research Department standards are followed at all times. This includes guidelines such as prohibiting the release of any data that would be overly biased by an excessive proportion of the total exposure risk being provided from a single company's contribution. In fact, the study for one country (Brazil) was never published due to such data concerns.

A second version of the IES tool is now in Beta Testing. It is expected to be released shortly to participating companies.

EXPOSURE TO RISK

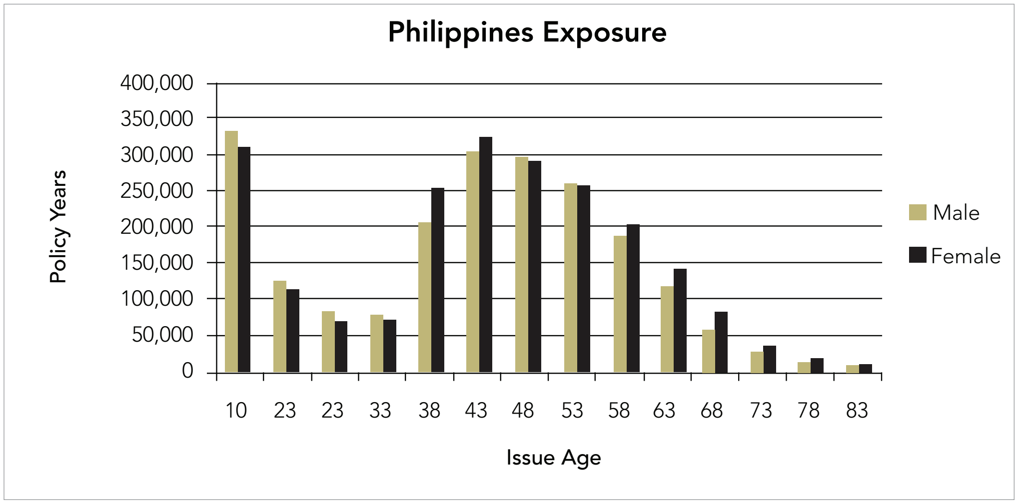
The graphs below show the exposure to risk based on age at issue and gender for each country. Exposure is expressed in contract years so that, for example, one policy in force for two years generates two units exposure.

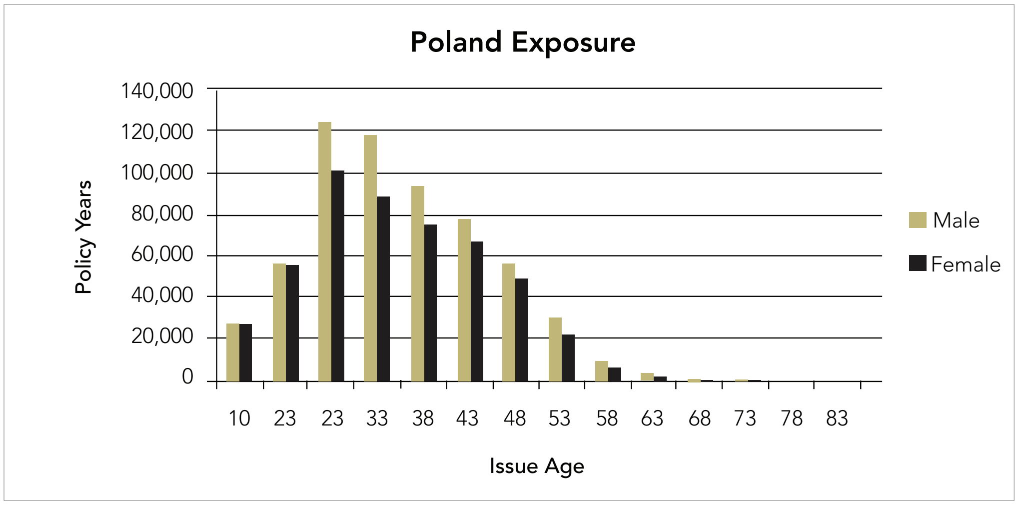


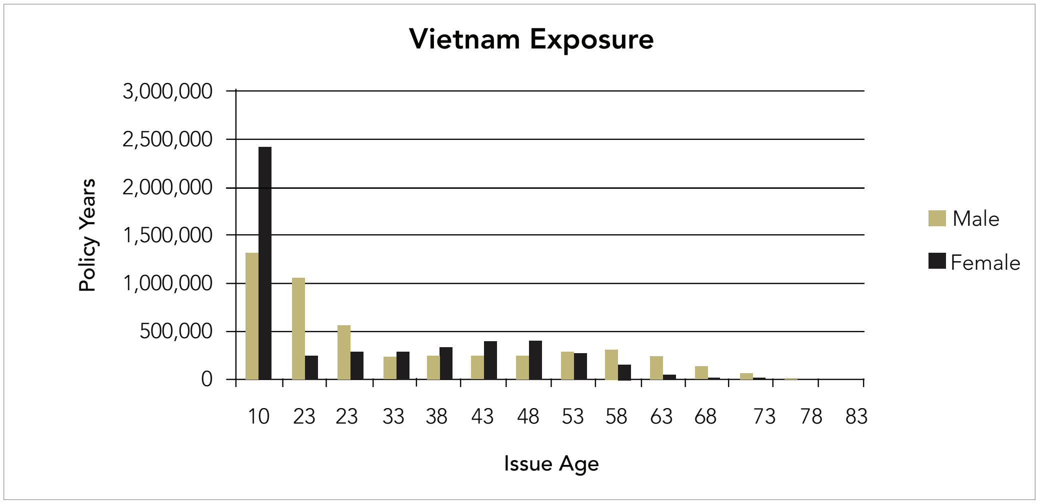


CONTINUED ON PAGE 10

Update on the SOA … | from Page 9



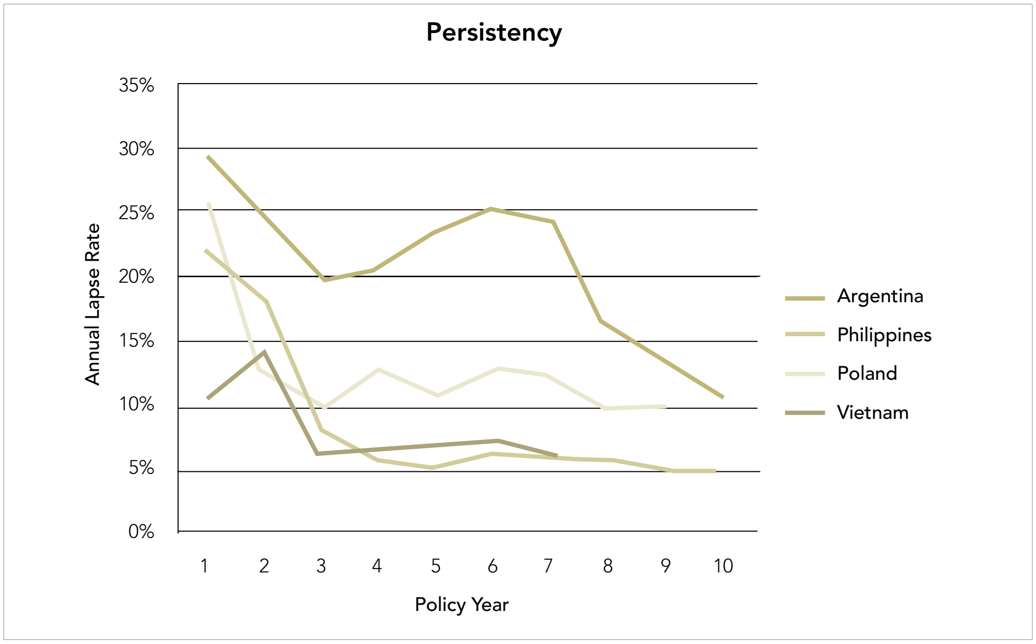




When viewing this data, it should be kept in mind that both Poland and Vietnam are relatively young markets with private insurance developing over just one decade. On the other hand, Argentina and the Philippines are more mature with decades of experience. It should also be noted that the experience in the Philippines and Vietnam provides results from the vast majority of the companies in their markets, while in Argentina, the Caribbean and Poland, only a smaller group of companies have agreed to participate in the study.

PERSISTENCY

The next graph shows persistency experience in terms of lapse rates by policy year.



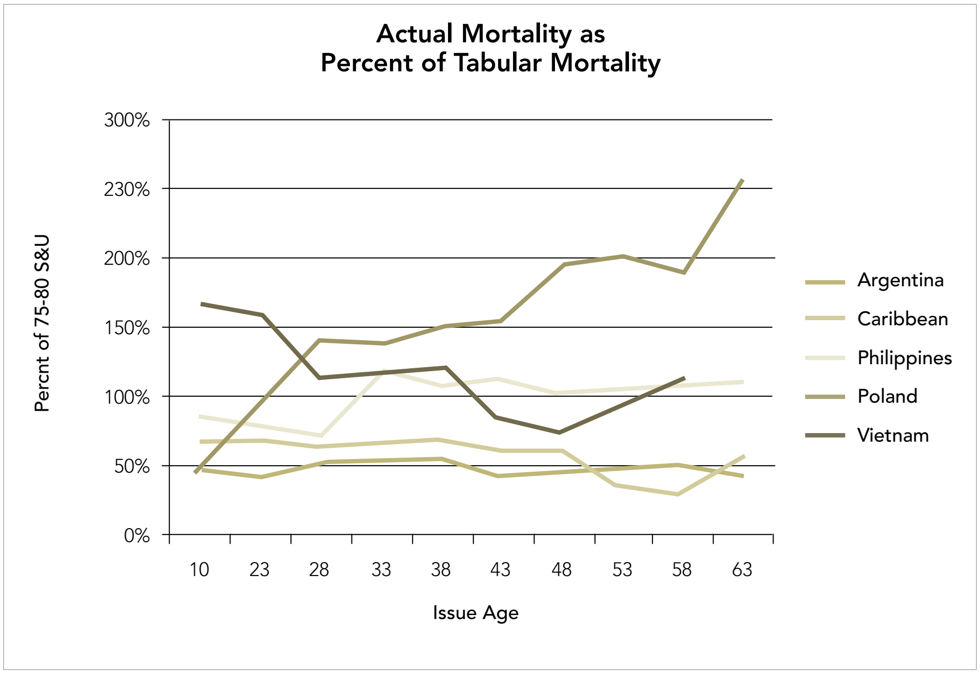
CONTINUED ON PAGE 12

Update on the SOA … | from Page 11

Note that Argentina was impacted by the devaluation of its currency during their study period while both Poland and Vietnam have no data from before the privatization of insurance.

MORTALITY

The table below provides actual mortality experience, expressed as a ratio of the SOA 1975-80 Select & Ultimate table.



FUTURE DEVELOPMENTS

The IES anticipates that several additional countries will contribute data within the next year and that even more countries will elect to study their emerging experience annually on an ongoing basis. A number of companies have expressed a desire to participate in this initiative in the following countries:

- Brazil
- Estonia
- Hong Kong
- South Korea
- Taiwan

It is particularly encouraging that both the Philippines and Vietnam began their studies on their own initiative. Hopefully, their actions will encourage even greater participation from other Asian companies in the future.

Thanks

The International Experience Study would like to thank all the companies that have participated in studies to date, as well as organizations that contributed the funds to make the IES possible. Although it would be impossible to thank each individual, we would like to explicitly thank the following groups:

- SOA International Section Council
- SOA Research Department
- European Technical Assistance Programme for Vietnam (ETV2)
- ING
- MetLife
- New York Life
- Prudential Financial

Readers of this article are free to contact either Ronora Stryker of the SOA Research Department at *rstryker@soa.org* or William Horbatt, Chairperson for the study, at *Horbatt@ActuarialConsortium.com.* □

Jill Hoffman, FSA, FCIA, is business development actuary at Munich Reinsurance Company - Singapore Branch. She can be reached at *JHoffman@MunichRe.com*.

Ex-pat & the Family

The questions of moving abroad

By Jill Hoffman

Congratulations! You've been offered a bright new shiny job overseas. A promotion! Housing allowance! Travel! But wait, what are you going to tell the family?

Taking a new job at home is most likely 90 percent about you and your career advancement. Taking a job overseas is 50 percent about you and your career and 50 percent about your family. There are a lot of hard questions that you and your family must face.

What does the new job mean for you? Will you be traveling a lot? Will you have to work a lot of long hours? Are you moving ahead of the family, so there will be several months of separation?

What about the package provided? Is it enough to maintain your current standard of living? What if you drop to one income? Do you have the cash flow needed for moving? While the company may pay for the move, they do not pay for the new bottle of ketchup you need on arrival or new TV due to change in electricity. As well, you will need cash for deposits; landlord, utilities, etc.

Does your spouse currently work? Will they want to work in your new location? Will they be able to? How do they feel about not working? Going from a working spouse to a non-working spouse is probably a harder transition than the actual move overseas. If they aren't working, will there be language issues? How will that be dealt with?

What about the children? What are the schools like? What is the environment like? Is it safe? Can they play outside? What is the pollution like? Are there activities to do on the weekends? If you do not have children, is now the time to have them?

What about the extended family? How much do you rely on them for day to day help? Are they able to travel to visit you? How will the grandparents feel about you "moving the grandchildren 1,000s of kilometers away?" How will you feel about missing out on family events, like Thanksgiving, Christmas? What about your friends? You will miss milestones like weddings, births.

When I was living in the Bahamas, I remember a friend telling me I was "so lucky" to be living there. So I asked her if she would do it. "Oh no, I couldn't move away from my family. My husband would not be able to find work, so this would not be the right choice for me." So while I am "lucky" to have the opportunity to move abroad come my way, I am not "lucky" in my choice.

THE SPOUSE MAKES OR BREAKS THE ASSIGNMENT

I have always said that the spouse makes or breaks the overseas assignment. The decision to move abroad must be made jointly between you and your spouse (it is up to you if children get a vote). Imagine the situation from your spouse's point of view. You get to go into work, talk to interesting people, have lunch at new restaurants, travel, entertain and more or less have the same routine as at home.

Your spouse, especially if they have to stay at home, will most likely have to do all the work around the house with respect to the move,

> "… the spouse makes or breaks the overseas assignment …"

dealing with getting the utilities turned on, find the grocery stores, figure out what all the new food is, get the children to school, etc. Even if they had stayed at home before, this is a new challenge. Maybe there are language issues. Perhaps extended family helped out at home with some of the daily routine, and that help is no longer there. Trying to make friends can be difficult for the stay at home spouse.

Like with any change, there will be a cycle. At first, you both will be excited, the packing up and imagining your new life. Next, there is the arrival and the newness of everything. Then there will be a large drop in the excitement level, around six months. Nothing is like home. You miss your friends and family. It can turn into depression for some.

But you will bounce back. It is the level that you plateau back to that is important. If you or your family do not like living there, then exit strategies will have to be looked at. If the plateau level is high, then ex-pat living will be rewarding and fulfilling is for you.

CHILDREN

Children add an extra element of fun in everything you do. Often, people will start a family while abroad due to the fact that one spouse is more than likely to be at home, or it is just the right time.

Schooling is obviously a major concern when moving abroad, and your children will most likely have to attend private school. Some countries do not allow ex-pats to attend their local, government subsidized school. The private schools are often made up of people like yourselves, ex-pats from various places around the world. Learning about different places, cultures and food is a given. Depending on the size of the local ex-pat population, you may be able to send your child to a school with a Canadian or American based curriculum. But maybe the British, French or Australian school would be a better fit. Many schools offer the International Baccalaureate program, to ensure some consistency as the children move around the world.

Children are also a great door opener for meeting people. Your new friends are the parents of your children's friends. If you have the time, you can get involved at the school, or organize play dates for the little ones in order to meet people.

Children can be more flexible than we give them credit for. Yes, regular routine and boundaries must still be there, but whether the bed is in Toronto, Singapore or Mumbai does not matter as much to a child as long as you provide them with love and the stability of the family unit. The core nuclear family bonds become that much more important and that much stronger when you are abroad, due to the shared experiences.

And a note of caution. It is easy to spoil children when abroad due to your own guilt. A child might state that they miss grandpa, and to ease your own guilt, you may buy them a new toy to cheer them up. This is not what the child wants. They want the reassurance that their feelings are valid and it is okay to miss grandpa, and you miss him as well. You do not want to raise ex-brats!

CONTINUED ON PAGE 16

Ex-pat & the Family … | from Page 15

ENJOYING THE ASSIGNMENT

There are ways to survive the cycle of excitement, depression and plateau. The first is to recognize it. Some people become neat freaks as they want to control their home environment as much as possible, as they may view it as the only place they can control. Others may spend their entire time on the internet in contact with friends and family back home. While contact to home is good, too much can prevent you from meeting your neighbours and experiencing your new life.

Try and meet new friends. Join an ex-pat club. Most places will have a Canadian or American ex-pat association. They are great places, as they have been exactly what you have been through, people can give valuable advice, and they know where Winnipeg, Sacramento (or wherever you are from) is on a map. Another international organization I have belonged to in the past is the Hash Harriers. They are a self-described "drinking club with a running problem" and have local chapters around the world. And just start talking to people, now is not the time to be shy. The faster you get a social network set up, the easier your transition will be.

Life will be different than back home. Isn't that the whole point of moving abroad? If you open your mind and your heart to the possibilities and challenges, the ex-pat life can be very rewarding for the entire family. □

Exclusive Interview with Tommy Pichet

By Pairor Lerdviram

Editor's Note: This article originally appeared in the May 2008 issue of Positioning Magazine *in Thai. It has been translated and reprinted here with permission.*

While many people try to stay away from Math, Tommy views it as his cup of tea. His exceptional skills in mathematics have helped him create an opportunity to step into the world of "Actuary," an engine role that drives the insurance industry. Tommy is one of a few Thais as of now who are qualified as a fellow of an international actuarial organization. Also, Tommy was, at the time of this interview, the only Thai on the actuarial team at AIG Hong Kong, where hundreds of products have been developed and distributed to over 10 countries around the world.

To be a top actuary working with a top insurance company is not just a "fluke." It is because Tommy Pichet, an actuarial manager of AIG Hong Kong, has drawn his own path and created his own opportunities to reach for it.

Strong determination, hard work, and visions have turned his career life from mere Engineer to Actuary; a career that makes financial sense of the future value of today's money.

The actuarial role is like a key engine that drives an insurance company. Thus, all hard skills, business acumen, and strong self motivation are required for succeeding in this career path. The most accurate projection and assessment possible are crucial for pricing insurance products. Any mistakes from pricing structures would lead to significant losses for the company in the future.

Tommy gave us an example of what is needed for designing a life insurance product with 20 years of coverage. There are a lot of assumptions involved. These include estimation of mortality rates and survival rates that requires payback returns. As a result, actuarial roles are to set product prices, returns for customers, compensation for insurance salespeople, and the related operating expenses over the insurance coverage period.

Tommy also told us that, prior to developing any products, one needs to comprehensively understand business operational processes, and requires excellent interpersonal skills to deal with various departments in order to thoroughly understand the company's selling points and customers' needs.

Actuaries have played a role in most of the corporate tasks which are related to money and investment. For example, an actuary assists in setting products prices, designing commission schemes for salespeople, and managing investment and other risks. Therefore, an actuarial career provides a fast track to become a CFO indeed.

Actuary is one of the most demanding careers in the insurance industry. In the United States and China, this career is ranked in the top five of the most wanted jobs. However, to become a qualified actuary you need to take a series of concrete actuarial exams and acquire, the so called, Fellowship in the Society of Actuaries (FSA) which is an international qualification. Presently, there are only a few Thais who are qualified for this designation. Tommy is one of them.

CONTINUED ON PAGE 18

Exclusive Interview … | from Page 17

The FSA is one of the most difficult credentials to obtain. Before the exam redesign, the exams only offered twice a year. On average, people take 7-10 years to pass all the exams, while Tommy spent only four years to complete the whole exam process.

Tommy Pichet, FSA, FSAT, FRM, MBA, MScFE (Dist), B.Eng (Hons) is currently working in Hong Kong as an actuarial manager of American International Assurance for Asia-Pacific region, and he can be reached at *Tommy.Pichet@AIG.com.*

Tommy gave us some information about the exams that actuarial candidates need in order to have a clear understanding of actuarial science. They also have to be able to combine all skills ranging from microeconomics, macroeconomics, statistics, calculus, corporate finance, accounting, and even law.

Since there are a few qualified actuaries in Thailand, the company recruits expatriates from Malaysia and Hong Kong, for example. As a result, in order to feed more qualified professionals into the market, AIG has encouraged potential employees who would like to take the exams by supporting study materials and rewards.

At the age of 25, when he was close to receiving the FSA qualification, he was offered an opportunity to join the AIG regional office in Hong Kong. He started as a Management Associate and was promoted to fulltime actuary afterwards.

It has been more than four years since he first joined AIG Hong Kong where he has developed and reviewed many insurance products executed in over 10 countries in Asia Pacific and the Middle East.

One of his most successful products is "Variable Universal Life" selling in Singapore on which customer needs are based.

Tommy's career objective is to develop the insurance industry in Thailand to grow flourishingly, and offer varieties of products. Admittedly, market of insurance products in Thailand is mostly for sale (by salespeople), not for buying (by customer awareness). Thus, embedded costs are likely higher than in other countries in the region.

He mentioned that this career path is truly in demand. In Hong Kong, there are about 100 qualified actuaries. In the United States, the average annual salary for this career reaches to or above USD 100,000.

Although working in Hong Kong in the actuarial field is difficult and requires a high level of responsibility, Tommy has found it truly challenging and enjoyable.

Useful tips from Tommy for those desiring to enter into the actuarial arena: they have to be well rounded, determined, and good at numbers. Lots of people think that an actuary is all about crunching numbers; however, Tommy values logical thinking and creativity as more important. For a seasoned actuary, one should focus on interpreting the numbers to form a meaningful story. Inspiring to compose and play an instrument, Tommy also metaphorically compares playing music to interpreting and making figures easy to understand and to comfort an audience when making any important financial decisions. □

Xiaokai "Victor" Shi, FSA, MAAA, is senior associate, Actuarial and Insurance Management Solutions (AIMS), at PricewaterhouseCoopers in New York, N.Y. He can be reached at *victor.shi@us.pwc.com*

Mei Dong is an associate, Actuarial and Insurance Management Solutions (AIMS), at PricewaterhouseCoopers in New York, N.Y. She can be reached at *mei.dong@us.pwc.com.*

Wendy Lai is senior manager, Assurance and Business Advisory Services, at PricewaterhouseCoopers in New York, N.Y. She can be reached at *wendy.w.lai@us.pwc.com.*

Capturing Opportunities in a Period of Transition: How Multinational Insurers Can Compete in China

By Xiaokai Shi, Mei Dong, Wendy Lai

CHINA'S INSURANCE INDUSTRY IS ENTERING A TRANSITIONAL PERIOD CHARACTERIZED BY GREATER FOCUS ON RISK MANAGEMENT AND GOVERNANCE

The Chinese insurance industry has experienced tremendous growth in recent years. It reached a milestone in 2004 by accumulating 1 trillion Yuan in assets; within two years, that number doubled, and then grew by an additional one trillion in 2007. In the past seven years, life premiums grew at 23 percent CAGR, and property and Casualty (P&C) premiums grew at 20 percent.[1] By any measure, this growth is extraordinary.

A number of signs now suggest the industry may be entering a period of transition, as companies and regulators assess the risks they have taken during these years of rapid growth and seek to build a stable long term foundation for expansion. While growth may temporarily slow, this time of transition presents an opportunity for multinational insurers to deepen their presence in China, shape the industry's future, and position themselves for the anticipated resurgence of growth in three to five years.

This transitional period is necessary; the Chinese insurance industry is now large enough that companies need to reshape their operations to effectively mature and become more sophisticated businesses. Improving governance and risk management are the key components of the next level of business sophistication, and they will help establish conditions conducive to another cycle of growth.

In addition to internal business evolution, several external factors could accelerate industry reform over the next three to five years.

- **Changing regulatory focus**—Wu Dingfu, Chairman of the China Insurance Regulatory Commission (CIRC), recently signaled in an influential public magazine interview that the Chinese regulators will strengthen regulations on supervision and risk management. He said, "Several years ago, our main mission was to 'repair the roads to make space for more cars.' Now, after these last several years, our goal is simple one: to strengthen supervision, to improve the rules of the road, and strictly enforce them to prevent people from being harmed in accidents." He also commented that "the insurance sector is at the beginning of a new stage of development."

Informal conversations and interviews with CIRC officials confirm this. Regulators are proposing and discussing new rules that emphasize solvency, capital requirements, risk management, and governance.

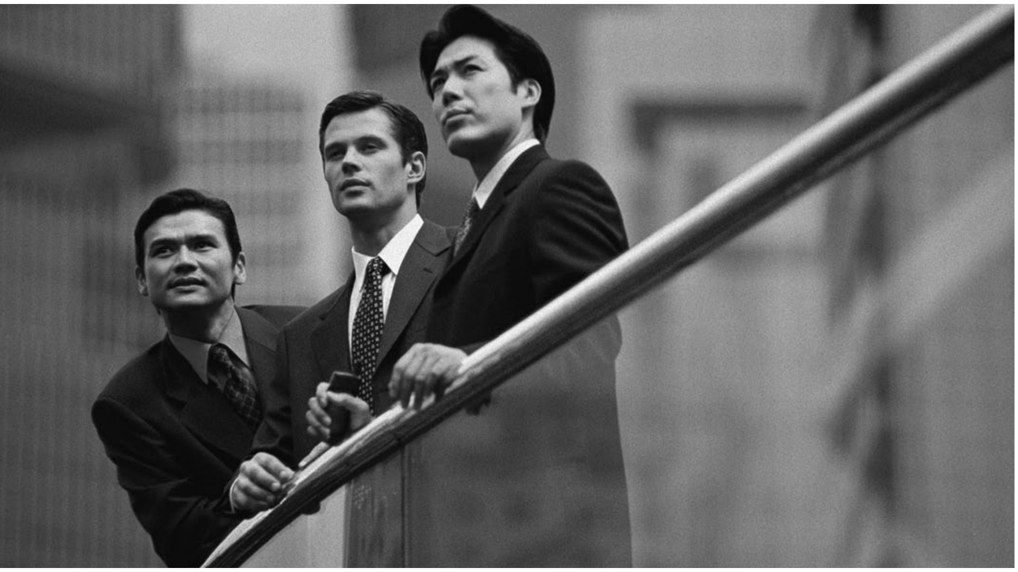
This new tone from officials carries particular weight in China, where the government exerts heavy influence on the industry. The most recent PwC survey[2] of executives of foreign

1 Source: CIRC 2007 annual market report

2 In 2008, PwC surveyed and interviewed 28 foreign insurance companies in China. The survey report (published September 2008) is available at: *http://www.pwchk.com/webmedia/doc/633555167808468096_foreign_insurance_cn_sep2008.pdf*

CONTINUED ON PAGE 20

Capturing Opportunities … | from Page 19



insurers in China showed they consider regulatory forces the most critical factor influencing insurance business changes.

- **Insolvency concerns**—Currently, 110 domestic and foreign insurers operate in China. However, one recent press report stated that twelve of the companies are experiencing difficulty remaining solvent. Other than the global equity market downturn, the key underlying reasons for this instability are overly aggressive business expansion, underdeveloped self-governance, and lack of sophisticated risk management expertise.

  Following one particularly high-profile case, CIRC issued new rules enhancing solvency requirements in July 2008. CIRC also is establishing a regulatory framework and procedures for dynamic solvency testing, similar to one which Canada, a mature market, is actively exploring. As a result, Chinese insurers are paying more attention to risk management and governance. Several of them are actively discussing risk management programs, such as economic capital implementation, reinsurance program redesign, and enterprise risk management (ERM).

- **Vulnerable business concentrations**—Investment or savings-like instruments are easily the most popular Chinese insurance products. By 2007, 53 percent of Chinese life insurance products (including 69 percent of foreign insurers' products) were categorized as savings or investments in the form of participating or unit linked policies.

  By concentrating in the investment business, insurers are in direct competition with banks and asset managers, which have the advantage of less stringent regulatory and capital requirements. In addition, China's stock market has fallen more than 60 percent in the past year. As well as hurting sales of new products, this downturn also has challenged the financial stability of the industry because, according to the 2007 year end data,[3] the average Chinese insurer has almost 30 percent of its assets bound to the stock market.

  However, in a country that has a huge population and a rising middle class, insurance is expected go beyond investment vehicles to playing a key role in protecting people from unexpected losses. Accordingly, we believe, after this transitional period, the Chinese insurance industry will feature greater protection-focused growth as a wealthier middle class increasingly understands its need for insurance coverage.

- **The global financial crisis—**The global financial crisis, especially the liquidity failure

3 According to CIRC, as of year end 2007, China's insurance total AuM has 18 percent directly in equity and another 10 percent in equity funds as indirect exposure to equity market.

of AIG and Ping An's loss of billions of Yuan when the Dutch government seized Fortis, is likely to serve as a warning to Chinese insurance companies to review their risk management abilities and practices. For many years, Chinese insurers looked to U.S. business models to shape their management, organization, and investment policies, as well as their approaches to legal requirements and solvency regulations. However, the financial crisis—particularly as it has unfolded in the United States—may suggest to Chinese insurers that the model they have sought to replicate suffers from fundamental flaws.

Although it is difficult to predict the long-term impact of the financial crisis on China's insurance industry, it certainly will force many executives and regulators to re evaluate the risks the industry is facing, as well as their ability to manage them. For example, the financial crisis may cause Chinese insurers to reconsider the recent trend of establishing independent asset management companies to invest the insurer's own assets and/or assets from external sources. Such arrangements, if investment risk is highly leveraged, can eventually threaten core insurance operations.

MULTINATIONAL INSURERS FACE A NUMBER OF CHALLENGES COMPETING WITH DOMESTIC RIVALS

Since AIG started its wholly owned branch in Shanghai in 1992, the number of foreign insurers in China's insurance market has increased steadily. Today, 48 foreign insurance companies have established a presence in China, operating in life, P&C, and the reinsurance markets. However, despite steady growth, foreign companies continue to play a comparatively minor role in China, representing only a small fraction of the total market. As of the end of 2007, foreign insurers accounted for only six percent of market share, measured by the total of life and non life premiums. This is because foreign companies that want to operate in China face a number of internal and external obstacles, including:

- **Joint venture partnerships complicate operations**—A foreign insurer hoping to do business in China starts by applying for a business license. If it meets broad official and unofficial criteria, it receives a permit from CIRC. Then, the prospective foreign company must meet further regional and business requirements to receive a business license from the local administration of the Bureau of Industry and Commerce.

To establish a life insurance business, foreign companies are required to form a joint venture with a domestic company. The foreign and local companies must share ownership equally. Building a long term relationship with the partner in a joint venture is a complex process and requires mutual understanding of expectations from the outset. For example, most foreign insurers expect short-term losses when starting their businesses in China a reasonable expectation considering the long-term investment nature of the insurance business. However, foreign insurance companies must convince their local partners, the majority of whom are not financial service players, that the joint venture will prove profitable over the long term. Because China's economic boom has created a highly competitive market for capital, foreign insurers must convince potential partners of the long-term benefits of investing in the insurance industry.

- **Challenging business conditions—**Beyond the challenges they face from unusual ownership structure requirements, foreign insurers have to deal with a number of social and personnel issues unique to China, namely:

CONTINUED ON PAGE 20

Capturing Opportunities … | from Page 21

- Cultural differences can lead to distrust between joint venture partners and conflict over management practices. Joint ventures often have several managers from two different companies with totally different corporate cultures. These managers have diverse cultural backgrounds, and may have different points of view on basic issues such as markets, products, distribution, and employee compensation.

- Competition for trained and experienced Chinese personnel is intense, particularly for competent managers. In fact, this is considered the most pressing issue for foreign companies in China, according to the recent PwC survey. An influx of foreign insurance companies is expected to drive demand for Chinese insurance experts beyond the capacity of an even expanded employee training programs.

- Furthermore, retaining top talent is even more difficult than training capable employees. In the authors' view, better compensation is not a real solution to recruiting and retaining talent. Foreign insurers need to understand that talented and high performing Chinese employees are driven by more than money. More than previous generations, they have the desire to make a difference, need constant, fresh challenges to remain engaged, and long for professional—not just monetary—success.

- Foreign companies have complex and sometimes contentious relationships with Chinese regulators, which require them to invest more time and effort in having effective regulatory interactions. These sometimes difficult relationships with regulators also diminish foreign insurers' influence on the regulatory direction of the industry. For example, foreign insurers often complain about the weight of requests from CIRC.

  However, we contend that, even though CIRC's demands may seem onerous, they present an outstanding opportunity for foreign insurers to make their voices heard, as well as help CIRC determine how to better regulate the industry. We also believe that foreign insurers could go a long way toward improving their relationships and stature with regulators if they express their concerns in a common voice by forming a Chinese association of foreign insurers.

- Ongoing social changes affect marketing of insurance products. For instance, the traditionally central role of guanxi, the social relationship between and among individuals or organizations, in shaping business relationships has gradually eroded in urban centers. Insurers must now approach Chinese customers through not only their social groups, but also as individuals. Foreign insurers need to build a broader base of customer segments. As a result, building and leveraging more efficient and diversified distribution channels presents particular difficulties to multinational insurers.

THE TRANSITIONAL PERIOD PRESENTS REAL, BUT FLEETING, OPPORTUNITIES FOR MULTINATIONALS

On balance, the current, transitional period offers multinational insurers significant opportunities both to seize market share and to influence the future of the industry. There are at least three specific reasons to view the transitional period as a period of optimism and opportunity.

- **China needs more and better insurance coverage**—One of the most important byproducts of the Chinese economic boom is the rising Chinese middle class. As it builds its wealth, it accumulates valuable personal belongings, such as cars, houses, and other financial assets. The middle class thus continues to drive demand for various insurance products, including both life and non-life products.

However, a significant portion of this group still remains unaware of the importance of insurance, or lacks the knowledge to choose appropriate insurance products for themselves and their families. If foreign insurance companies continue to target and educate the growing Chinese middle class population, they will benefit from its demand for insurance products.

The threat of natural disasters also provides a real opportunity for growth in the Chinese insurance market. China's P&C insurance system still remains inefficient in providing effective social buffering in the face of major disasters. A paralyzing snow storm in January 2008 and a catastrophic earthquake in Szechuan province in May 2008 further revealed the inability of the Chinese insurance system to provide proper protection and compensation to natural disaster victims. In the next five years, the Chinese insurance market likely will continue to focus on developing appropriate products that provide coverage for both recovery and reconstruction in the wake of natural catastrophes.

- **Foreign insurers' expertise gives them an advantage—**The Chinese insurance industry is maturing in much the same way that insurers in developed countries did decades ago. Insurers from developed countries possess experience and expertise that provide them with an advantage when competing with domestic ones. Most foreign insurers are accustomed to the sophisticated business challenges in a highly regulated and highly competitive global environment. For example, while most Chinese companies have not yet faced severe financial shocks, many large multinationals already posses decades of experience designing and selling sophisticated products that can help them weather various stages in economic and underwriting cycles.
  In addition, foreign insurers continue to make advances in areas such as new product development and risk management. They can draw on this experience and culture of innovation to design and sell insurance products uniquely suited to the needs of Chinese consumers. For example, products such as weather derivatives, which are common in the US, are still largely unheard of in China. In light of the unpredictability of the weather, as well as the heavy Chinese reliance on agriculture, the Chinese market is poised for demand growth in this sector. Foreign insurers, with years of experience in developing such products, as well as abundant data and models to support their design, can take a lead in introducing them to Chinese consumers.

- **The next five years is a promising time to expand in the Chinese market**—Over the next five years, foreign insurers likely will see their last—yet best—opportunity to both influence the regulatory direction of the Chinese insurance industry and obtain strong, market share for the long term.

  The increasing number of well-educated Chinese expatriates who are expected to return home in the next five years represents a competitive pool of human resources—many of whom have spent five years or more working at multinational insurers or consulting firms—that foreign insurers can utilize. Within the insurance industry, this talent has ex-

CONTINUED ON PAGE 24

Capturing Opportunities … | from Page 23

tensive industry knowledge and sophisticated business development skills. At the same time, their language ability and understanding of Chinese culture give them a pronounced advantage over foreign executives who plan only short business tours in China. Accordingly, these Chinese expatriates can serve as the ideal links between the local Chinese market and the home offices that operate under western style management.

However, this opportunity may not last very long.

- Domestic companies are experiencing strong growth and are attracting increasing numbers of talented Chinese employees, both locally and from overseas. It will be even harder for foreign companies to compete in five years time because their domestic competitors will be much stronger then than they are today.
- CIRC is rapidly increasing its regulatory knowledge and skills. Over the next five years, CIRC likely will develop much stronger regulatory capabilities and make major, far-reaching policies and rules. As a result, if they cannot effectively articulate their opinions, foreign insurers will be operating in a considerably more mature Chinese insurance industry, with established rules and regulations tailored to domestic insurers. In order to better align their strategies with the development of the industry, it is very important that they be able to offer their opinions and make their voices heard during this transitional stage. At the same time, they need to make credible and well-coordinated attempts to influence the development of the industry in a manner in line with their own corporate goals.

In conclusion, the next five years is an era of considerable opportunity and some major challenges for foreign insurers who remain interested in the Chinese insurance market. It is critically important that those insurers take a long term view, plan their penetration into the Chinese market strategically, vigorously develop their local teams, actively build relationships with local partners, and carefully interact with CIRC. Foreign insurers who take advantage of this transitional period can effectively leverage their global expertise, resources, and best practices, and thus expand their presence in the Chinese insurance market. This includes attracting and retaining top local and overseas talent, building a stronger and broader customer base, exploring efficient distribution channels, constructing a diversified business portfolio, and applying prudent legal compliance with regulations. The companies who best capture the opportunities of this transitional stage will be the ones that enjoy significant long-term success in China in the years to come. □

Raimund Rhiel Ph.D., is an accounting expert in Mercer's Munich office and professor for actuarial sciences at Marburg University. He can be reached at *Raimund.Rhiel@mercer.com.*

What's New in Germany—Understanding CTA and Pensionsfonds

By Raimund Rhiel

Editor's Note: This article was previously distributed by Mercer and has been updated by the author for publication in International News*.*

The company pension landscape in Germany is very diverse, both in terms of the level of provision and the way that companies finance their pension plans.

THE PENSION ENVIRONMENT IN GERMANY

A typical German company employee pension plan is designed around a considerably lower benefits target than plans in the United Kingdom, the United States, the Netherlands or Switzerland. German pension plan design historically has been mostly based on defined benefits, although the worldwide trend toward defined contribution is also increasingly evident in Germany.

Germany's pension finance/funding environment is radically different from all other major countries. German employers are not forced (or even encouraged) by labor or tax law to fund their pension obligations in an external pension fund. Although the law allows a range of funded approaches, 56 percent of all German pension obligations (that is, €250 billion of €450 billion) are instead financed by direct employer commitments in which the employer pays the pensions directly when they fall due. In case of insolvency there is a comprehensive protection system operated by the German Pension Protection Fund—*Pensionssicherungsverein* (PSV).

The employer has to accrue pension liabilities in its local and international financial statements. Very importantly, the employer can deduct unfunded accruals for pension cost from taxable income. The tax deduction is based on a statutory methodology—the German *Teilwert.* This *Teilwert* is based on:

1. The entry age normal actuarial method
2. A discount rate of six percent and no allowance for future salary and pension (inflation indexation) increases.

Cost and liability determined in this way for a pay related plan are clearly "insufficient" when compared, for example, to the IAS19 or SFAS87 methodology, but the available deductions are generally more favorable than those allowed for by the various external pension vehicles (support funds, Pensionskassen, direct insurances and also reinsurance contracts for book reserve plans.) These approaches have suffered under less favorable tax rules (tax limits on funding or taxation as employee income) or insurance supervisory law with prohibitively high insurance premiums (based on an interest rate of 2.25 percent).

In the financial world the high incidence of unfunded pension liabilities among German companies reflects a major difference between the balance sheets of typical German companies and their Anglo Saxon counterparts.

The German perspective is that non German companies hide their pension liabilities in external pension funds.

The foreign perception of German companies is that they maintain unfunded or unsecured pension plans that are considered negatively by analysts and rating agencies.

CONTINUED ON PAGE 26

What's New in Germany … | from Page 25

Ultimately, the economic reality is a bit different:

1. German plans are not unfunded, but are internally funded. Pension liabilities are fully recognized on the company balance sheet, and pension assets are integrated with the business assets.
2. German plans are not unsecured. They are strongly secured by business assets and reinforced by the mandatory insolvency insurance PSV financed jointly by all employers with pension plans.

In spite of the existence of several possible approaches for external pension funding, the fact remains that the internal book reserving system has continued to be the simplest and usually the most tax effective. All of the traditional German funding platforms suffer from a variety of limitations or impediments.

INTRODUCING THE CONTRACTUAL TRUST ARRANGEMENT

In the 1990s, German companies increasingly lobbied for the creation of new funding vehicles that were more tax effective. The official response was very limited and, as a result, companies like DaimlerChrysler and Siemens, both reporting under US GAAP, turned in 1999 and 2000 to the Contractual Trust Arrangement (CTA) as a platform for pension finance.

The CTA is fundamentally a very simple entity. The starting point is an internally or book-reserve funded program. As mentioned above, the pension assets are fully integrated with company business assets. A company may, however, choose to earmark certain business assets as being held to cover the pension liabilities.

The next step is then for the CTA to "ring fence" the earmarked assets by legally committing the assets to pension liabilities. The CTA is "the fence," or the legal framework that establishes the pension claim upon the assets.

The end result is company assets that are segregated and restricted for the purpose of pension benefit delivery. The art of CTA construction is a balancing act designed to achieve acceptance by both the employer and auditors, with the result that:

1. German tax law still recognizes the CTA assets as company assets to the extent needed to preserve the integrity of the book reserve tax benefits.
2. The applicable accounting standards (US GAAP or IFRS) recognize the CTA assets as substantive pension plan assets. This will also apply to the German (commercial) accounting standard (modernized German HGB standard) starting from Jan. 1, 2010, but still not under German tax law.

It is now quite well established that the balancing act is practical and possible, with CTA assets being recognized as plan assets (under US GAAP and IFRS, and in future German HGB standard).

The CTA, used in this way, provides a practical means whereby a German company can overcome the adverse perception of unfunded and unsecured pension liabilities in the international financial community.

A specific IAS 19 amendment in 2000 explicitly accepted CTA assets as plan assets, allowing netting against the pension obligation, and whose return volatility can be smoothened via the corridor approach.

This amendment triggered a rush among companies to establish CTAs, and this trend toward external funding of book reserve plans is still

"German company pensions are changing steadily to funded vehicles like (very flexible) CTAs or (a bit more regulated) Pensionsfonds in order to disconnect the pension plan's fate from the company's fate. In principle, that is a good thing despite the financial crisis!"

ongoing today. This is illustrated by the fact that most of the DAX30 companies followed DaimlerChrysler and Siemens in establishing a CTA: companies such as BASF, Commerzbank, Continental, Deutsche Bank, Deutsche Börse, Deutsche Post, E.On, Henkel, Infineon, Linde, Lufthansa, MAN, MunichRe, RWE and Volkswagen. The amendment of the German HGB standard, starting in 2010, will even accelerate this move towards external funding.

At the end of 2007, the pension obligations of the German DAX30 company groups amounted to around €211 billion and the plan assets to €150 billion, which resulted in a funding ratio of 71 percent. Due to the financial crisis in 2008 (and some changes in the DAX composition) the plan assets dropped down to around €125 billion. On the other hand due to increasing AA corporate bond interest rates in 2008 (and some changes in the DAX composition) the pension obligations decreased to €191 billion, so that the overall funding ratio only decreased to 65 percent.

Of course, those figures also include the non-German pension obligations of those DAX30 company groups. For the end of 2007 we estimate the non-German obligations to be around €60 billion and the corresponding plan assets to be around €62 billion. This results in a funding ratio of about 100 percent for the non-German obligations, whereas the funding ratio of the domestic German pension obligations of the DAX30 firms may be around 60 percent (plan assets of €88 billion versus pension obligations of €151 billion). We estimate that the vast majority of the €88 billion assets are CTA assets. The €88 billion DAX 30 domestic plan assets may have decreased in 2008 to €73 billion.

THE CTA SUCCESS STORY

Let us have a closer look at German CTAs and why they were and are so successful in Germany.

We already mentioned the traditional book reserve system's attraction in terms of simplicity and tax effectiveness. The CTA provides a means of retaining the simple tax effective book reserve features, but with a similarly simple and effective enhancement allowing the company to operate the desired external funding policy.

Most important, the CTA can be established easily. The company does not need to have the consent of the employees—or the employee representatives in the workmen's council. The employees still have their pension claims directly against the employer. Also, the tax treatment is unchanged for employees and employers: the employer funding the pension benefits in the CTA enhances security, which is positively perceived by employees.

The ultimate impact of the CTA is:

1. The program is now recognized as "funded" under IAS 19 and SFAS 87 (and, starting in 2010, also under German HGB standard).
2. The company can develop and operate the funding and investment policy that it believes most appropriate. It is easier to invest ring-fenced CTA assets as pension assets if they are separated from the company cash float.

There are no other consequences such as minimum or maximum funding requirements and no regulatory rules on investment or funding policy by any supervisory body.

Of course, well governed companies should have and do have governance rules guiding pension plan management. Such rules enhance good understanding and control of pension impact on the enterprise. This permits effective cash flow planning, professional asset allocation, investment process in general and con-

CONTINUED ON PAGE 28

What's New in Germany … | from Page 27

trol of accounting risks (often value at risk approach) and so on.

Under German tax accounting rules a CTA is still classified as an unfunded book reserve plan, so that the company still pays the full insolvency premium to the German Pension Protection Fund of approx. 0.4 percent of German *Teilwert*, which may be approximately 0.3 percent of an accounting DBO in many cases. And the German *Teilwert* with a discount rate of six percent is used for tax-deductible pension expenses of the employer.

ALTERNATIVES TO CTA-BACKED BOOK RESERVE

In 2002, the German government established a new external pension vehicle, the *Pensionsfonds.* The new vehicle allows higher equity investments than allowed for insurance companies or *Pensionskassen.*

The market has been slow to take up the new vehicle mainly because the *Pensionsfonds* are more or less treated like insurance companies for regulatory purposes (heavy supervision and a very low discount rate of 2.25 percent).

At the end of 2005, the total assets of all 23 German Pensionsfonds (two company funds of Bosch and German Telecom, one industry wide multi-employer fund for the chemical industry and 20 commercial *Pensionsfonds* of insurance companies and banks) were still below one billion euros.

New legislative changes in 2006 have improved the situation for *Pensionsfonds*. They may operate with market interest rates (currently around 4.5 or five percent, which is roughly in line with discount rates under IAS 19 and SFAS 87). As a consequence, in 2006 and 2007 three company *Pensionsfonds* of Siemens, RWE and MAN were established, mainly to cover their current pensioners. Total assets of the 26 German *Pensionsfonds* at the end of 2007 rose to 15 billion euros, mainly due to those three company funds. In 2008 there was no major progress in the *Pensionsfonds*.

An advantage of the *Pensionsfonds* over the CTA-backed book reserve is that the premium for the German Pension Protection Fund is only 20 percent of the premium for book reserve plans. But there are still some disadvantages for active employees: (1) premiums for future service are limited to four percent of German social security ceiling (four percent of €64,800 is only €2,592 p.a.), and (2) there are some income tax disadvantages for active employees.

But for pensioner populations the *Pensionsfonds* has become an attractive competitor to CTAs. There are no disadvantages at all to the pensioners, and there are some advantages for the employer. But some regulatory asset allocation regulations (from Insurance Supervisory Authority, "BaFin") exist for *Pensionsfonds*, but not for CTAs. However, if the company's intent is to invest the assets prudently anyway (for example, in AA rated corporate bonds), then a *Pensionsfonds* for pensioners is very attractive. That is why Siemens created a Pensionsfonds for its current pensioners and transferred €6.4 billion in 2007 from its CTA to it. The assets for the active employees remain in the CTA. Also in 2007, German electricity giant RWE followed this line and transferred € 4.6 billion for its pensioners to its newly founded *Pensionsfonds*; similarly truck producer MAN with € 850 million.

Also, some of the 20 commercial Pensionsfonds of insurance companies and banks now use the higher flexibility in the premium calculation to offer competitive market products to attract employers (especially small and medium-sized companies) to transfer their pension liabilities to them. One insurance company (LV 1871) established its new *Pensionsfonds* in Liechtenstein in order to profit from Liechtenstein's more flexible rules on the funding of deficits. But experts expect that the German rules on deficit funding will also improve.

CONCLUSION

Clearly, approaches to funding have been, and will continue to be active issues for German companies, both domestic and multinationals. It also seems clear that any multinational with German operations would gain from working through the funding issues relative to their own local requirements and assets. □

International Section Council Activities at the 2009 SOA Annual Meeting

The 2009 SOA Annual Meeting will be held in Boston from October 25 to 28 and the International Section is sponsoring several activities.

Sessions

We are co-sponsoring two sessions jointly with the Financial Reporting Section on October 27. The first session, **The Convergence of Accounting Standards for Insurance**, explores what the convergence of US GAAP and International Financial Reporting Standards (IFRS) means for your work. The second session, **IFRS and Solvency Update,** will discuss the latest IFRS Exposure Draft on Insurance Contracts as well as various solvency initiatives worldwide. In addition we are sponsoring a session (also on October 27) on Microinsurance which will introduce the concepts of **Microinsurance** and provide examples of how it has been put into practice.

Reception

We will be repeating the successful International Section Reception that we held at last year's Annual Meeting. The reception will be held on October 27 from 6 pm to 9 pm and will feature delicious hors d'oeuvres, an open bar and karaoke. We hope you will be able to join us for a friendly evening of eating, drinking, singing and sharing experiences with your colleagues. The admission charge will be $50 per person.

Katsumi Hikasa is Chief Actuary at Mitsui Life Insurance Company Limited. He is currently serving as president of the International Actuarial Association. He can be reached at *Katsumi_Hikasa@mitsui-seimei.co.jp.*

The IAA and Global Financial Risk

By Katsumi Hikasa

Since its restructure in 1998 into an association of actuarial associations, the International Actuarial Association (IAA) has steadily strived to make its presence felt in the global financial community. Facing the rapidly changing environment, simply maintaining the status quo is not sufficient by any means. In order to be a fruitful organization in the future, the IAA needs to meet the new challenges and respond to the changing environment, which is why on Nov. 4, 2008, the IAA adopted a Strategic Plan that includes the following vision and mission statements:

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

The mission of the IAA, as the worldwide organization of actuarial associations, is:

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

The adoption of the strategic plan, including these vision and mission statements, was timely as it came on the cusp of the global financial crisis. What a perfect time for the IAA to implement its vision statement by identifying the management of risk as a key area of actuarial expertise.

Immediately following the adoption of this plan, the IAA created an Advisory Task Force on Risk Crisis, reporting to the Executive Committee. The role of this Task Force is to provide advice and guidance to the sub group of the IAA Enterprise and Financial Risk Committee. In accordance with the IAA's vision statement, the sub group was tasked with preparing an appropriate reaction by the IAA on behalf of the global actuarial profession to the financial crisis we now found ourselves in.

The expected outcomes were:

- a public statement to be issued in a timely manner targeting the Financial Stability Forum, the governments, the regulators and the major financial institutions focusing on the potential contribution of the actuarial profession to the management of risk in the financial services sector; and
- a communication program comprising a set of documents that could be used by the IAA, its member associations and actuaries in general over the next 12 months to promote the actuarial profession as a qualified major player in the management of risk in both the financial (bank and non bank) and the real sectors

The IAA, representing the global actuarial profession, sees many lessons being learned from the current crisis, which has been deeply affecting not only the financial industry, but also the entire world. Witnessing the crisis, one would wonder whether such a crisis could have been prevented if the expertise of actuaries had been applied to the wider financial fields and utilized effectively in the decision making process of financial institutions. This is a hypothetical question to which we might never find an answer, but we firmly believe that the actuarial profession is equipped with just the right set of technical skills and professional discipline to better deal with financial risk management within any kind of institution or grouping of institutions. Actuaries, experienced in measuring and managing risk, are suggesting potential reforms, improvements and solutions applicable across the financial services sector.

In other words, the risk crisis represented a great opportunity to promote the actuarial profession and to educate on the important role actuaries can play in the management of risk.

The first part of the mandate was completed on Feb. 10, 2009 with the publication of the paper entitled "Dealing with Predictable Irrationality—Actuarial Ideas to Strengthen Global Financial Risk Management" and an accompanying worldwide news release.

As one of the highlights of this paper, the IAA has proposed four measures to be taken in order to prevent future financial crisis. They are:

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

Since the release of the paper, presentations and representations on these issues have been made on behalf of the actuarial profession to:

(a) various national regulators of banks, insurers and pension funds,
(b) the International Association of Insurance Supervisors,
(c) the Joint Forum (an international group of banking, insurance and securities markets regulators),
(d) the Social Insurance, Pension and Provident Fund Conference "Pensions in Crisis" held in Cyprus in March
(e) the U.K. Board of Actuarial Standards
(f) the U.S. House of Representatives Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises, and
(g) the Financial Crisis Advisory Group of the IASB/FASB.

CONTINUED ON PAGE 31

The IAA and Global Financial Risk | from Page 31

In addition, the IAA Task Force has been monitoring the relatively rapid political and regulatory developments internationally in response to the global financial crisis. These began with the declaration of the G20 immediately following its meeting on Nov. 15, 2008, to take measures to strengthen transparency and accountability in financial institutions, enhance sound regulation, promote integrity in financial markets, reinforce international co-operation and reform various international financial institutions.

The most significant outcome of this initiative is that the four recommendations that the IAA made in the paper are reflected in the proposals adopted by the G20 in April. This is a testament to the role and influence of the actuarial profession and an indication that we are on the right track towards realizing our vision.

Thanks to the initiatives taken by IAA member associations, the paper received excellent media coverage in some countries, making the presence of the IAA and of the actuarial profession known by the world outside the actuarial community.

It will not be an easy task by any means to continue to accomplish the new objectives set forth by the IAA. However, it is important, not only for the future of the IAA, but also for the society in general. Simply put, the IAA has the obligation to "contribute to the well being of the society as a whole" by implementing the strategic objectives to achieve the vision and mission as stated in the Strategic Plan.

The second part of the Task Force's mandate, the development of a communication plan comprising documents for use by actuarial associations and actuaries, is now in full swing. Discussions will continue at the IAA meetings in Tallinn at the end of May towards finalizing some of this documentation.

The impact of the Task Force on Risk Crisis will no doubt be felt for many years to come in many different ways. Actuaries and their clients will need to continue to be alert to both risks and opportunities (including opportunities for the actuarial profession) that will emerge as a result of the work of the Task Force.

I would like to take this opportunity to stress that any goals that the IAA would like to achieve could not be accomplished without the firm continued support of the local actuarial associations and the contribution of their individual members as volunteers in their specific areas of expertise.

Let's face this challenge together! □

Call for Papers–Living to 100 Symposium IV

The Society of Actuaries will present its fourth triennial international Living to 100 Symposium in January 5-7, 2011 in Orlando, FL. We encourage anyone interested in preparing a paper for the symposium to get an early start on pursuing the research and analyses. We are seeking high quality papers that will advance knowledge in the important area of longevity and its consequences. To learn more, visit www.soa.org, click on Research, Research Projects and Calls for Papers and Data Requests.

Michael Witt, FSA, MAAA, is a consultant with Milliman in Williamsburg, Va. and supports Milliman's São Paulo office. He can be reached at *Michael.witt@ milliman.com.*

A Beautiful Opportunity: A Brief Overview of the Brazilian Life and Annuity Market

By Michael Witt

Brazilians often refer to their style of playing soccer as "the beautiful game." They play with creativity and risk taking that is unmatched by other countries and the results are indisputable. Brazil has won five World Cups, more than any other country.

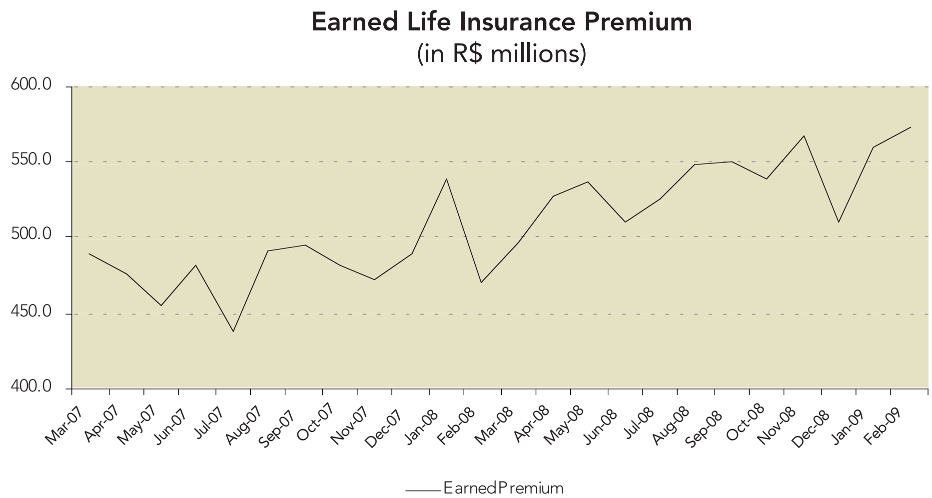
In recent years, Brazilians have developed another thing of beauty, although it is nearly devoid of creativity and risk–taking. Internal management, combined with external events, have turned Brazilian life and annuity insurers into strong companies providing consistent results.

In light of the current turbulent economy, this certainly represents a beautiful opportunity for foreign companies desiring to enter and take advantage of Brazil's growing, stable insurance market.

LIFE INSURANCE

Life insurance products in Brazil are generally simple for the customer and carry very little mortality or investment risk for the insurer. The majority of policies sold are annually renewable term (ART) policies, so there are no long term reserves that would bring investment risk in the current economic environment. Because of strong distribution networks (generally through large banks), companies are also able to price their products conservatively. This allows insurers to withstand moderate increases in mortality.

The slowing economy seems to have had little effect on the sales of life insurance in Brazil. As can be seen in the following graph, the premium growth has trended upwards over the last two years, resulting in record profits for many companies.



Brazil did not always have a low-risk approach to their life insurance products. In the mid to late '90s, several companies began offering ART products where the premium was constant over time. While this product had large margins in the early years, providing large profits, the margins slowly deteriorated as policyholders aged and premiums remained level. Many of these products are already producing losses, and the products that are still profitable now are expected to produce losses in the next few years.

To manage these products, many companies have begun to establish reserves for the future losses and are consistently monitoring the performance of these blocks. Additionally, insurers have taken further steps to mitigate these risks. Some companies have developed new products

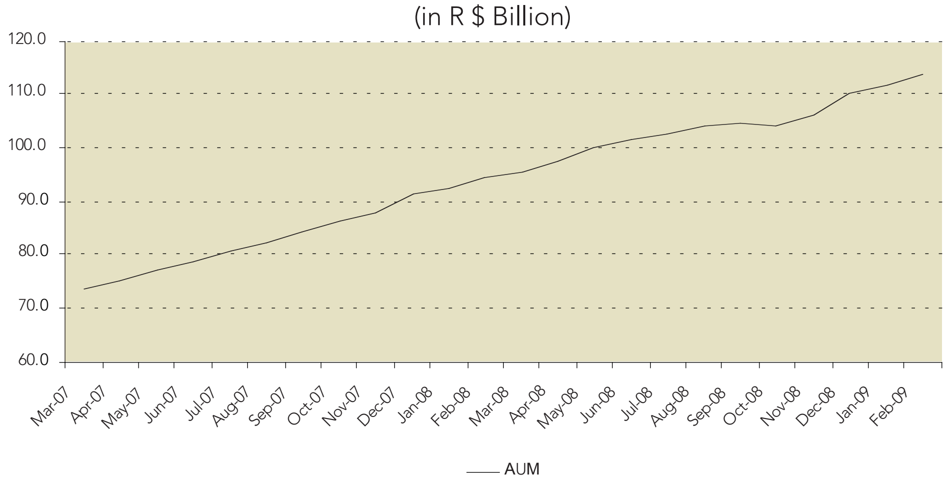
CONTINUED ON PAGE 34

A Beautiful Opportunity … | from Page 33

and encouraged customers to replace their current policy with one of the new products. Others have changed their operational procedures, training call center representatives to not try to retain customers who want to cancel one of these policies. These management steps have generally served well to reduce the risk of the non-adjustable policies as they work themselves out of the companies' portfolios.

Annuity Assets Under Management

(in R $ Billion)



ANNUITIES

Annuity products in Brazil are also simple and represent little risk to the insurer. The policyholder is offered a number of funds and assumes all of the investment risk for their fund allocations. However, regulations require that the funds cannot invest more than 49 percent of their assets in equities, with the remainder of the assets invested in fixed income instruments (generally, federally issued inflation linked government bonds). In practice, the policyholders still overwhelmingly choose fixed income options, so companies have (on average) about 10 percent of their assets under management (AUM) in equities. During the current economic crisis, insurers have benefited from the Brazilian annuity structure in two ways. First, the lack of guarantees has eliminated the market risk that is present in countries where variable annuities carry guarantees that have gone in the money under the current economic conditions. Second, the fact that the majority of funds are in fixed-income options has resulted in continued AUM growth even though the stock market has lost value. The average fund return during the last two years has stayed in the 10 to 12 percent range. This means that the fee income that is based on AUM has continued to grow throughout the economic downturn. The following graph shows the total AUM growth for the Brazilian market over the last two years.

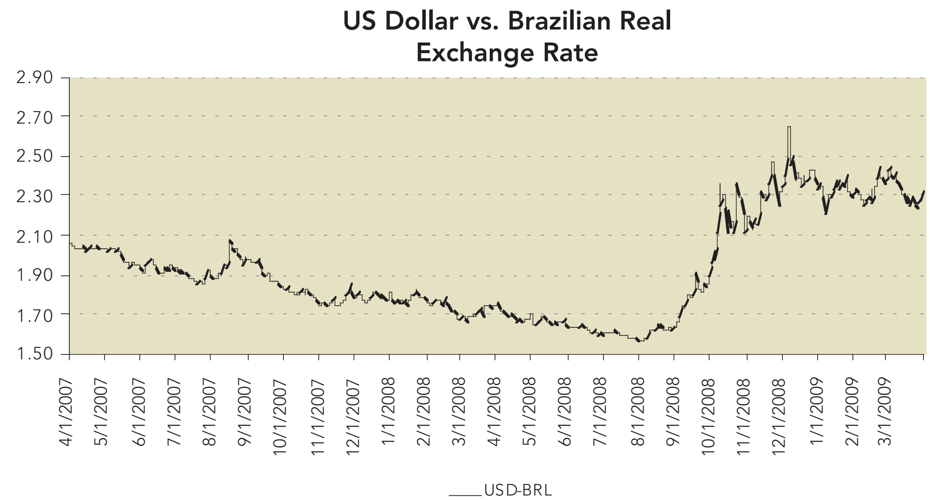
As with the life insurance products, annuities in Brazil were not always low-risk. In the early years of the private annuity market, annuities carried rich interest guarantees, the most common of which was a guarantee of inflation plus six percent. When these products were developed in a high interest rate environment, it seemed unlikely that the guarantee would ever come into play. However, over the last five years, interest rates began to drop dramatically, and insurers were forced to make changes. First, most companies began to develop more robust asset/liability management (ALM) practices to immunize their portfolio and lock in high interest rate returns for as long as possible. Secondly, companies began aggressive campaigns to convince policyholders to replace their guaranteed annuity with a non-guaranteed annuity, usually offering some benefit if the policyholder converted. As a result of these management tactics, most of the guarantee annuities are "under control," and are not expected to present large losses in the future.

EXTERNAL EVENTS

In addition to the internal events that have strengthened and stabilized Brazilian insurers' profits, external events over the last two years have made it more attractive for foreign insurers to enter or expand their presence in the Brazilian market. The Brazilian real has weakened during the economic crisis, making it cheaper for foreign companies to invest in Brazil. The following graph shows the exchange rate for the U.S. dollar and the Brazilian real over the last two years.

Additionally, several foreign companies have ran into difficulties and decided to exit the Brazilian market. Last year, AIG and Tokyo Marine sold their portions of Brazilian joint ventures to their partners. It is possible that other foreign companies might look to sell their stakes in Brazilian insurers in order to raise capital, and it may be possible to acquire these stakes at below market prices.

Existing companies are generally solid, the market is stable, and currency rates are favorable, but entering the Brazilian market is not without its challenges. The market is currently dominated by insurance sold through large banks, and these banks seem to be shying away from joint ventures. So entering into this type of arrangement may be more difficult or costly than acquiring a stand-alone insurer. But the traditional distribution channels through smaller banks have eroded as these smaller banks have been acquired by the large banks. So a new entrant in the market will have to demonstrate some creativity in developing a distribution system that will allow it to penetrate the insurance market outside of bank channels.



CONCLUSION

The management and regulatory culture in Brazil has produced life and annuity companies that have remained extremely profitable during the current economic downturn. Current sales have continued to grow for products that represent little investment risk to the company, and risks on existing blocks of business have largely been mitigated. External events such as the weakened Brazilian real and troubled foreign owners have produced companies that can be acquired at relatively low values. It is clear that in this troubled economic environment, Brazilian life and annuity insurers represent a beautiful opportunity for foreign companies that want to enter the market. □

Peter Au can be reached at
peter.damian.au@gmail.com.

Actuaries and Risk Management Role after the Credit Crunch

By Peter Au

The Pacific Rim Actuaries' Club of Toronto is committed to serving the actuarial community in Toronto. The club meets three times a year, two of the activities are dinner meetings with an invited guest speaking on some actuarial topics. The other activity is a summer barbecue function. The club also organizes two business workshops each year which aim to provide members with relevant materials to improve their soft skills. In addition the workshops can be used to satisfy Continuing Professional Development (CPD) requirements.

The club is now 16 years old and has been fortunate to host many speakers from Canada and other countries. As the keynote speaker at our annual Chinese New Year Dinner in February 2008, Mr. Nick Dumbreck (then president of the Institute of Actuaries) said that the actuarial profession could position themselves as the natural choice for complex risk management work. The risk management practice should not only apply to insurance companies, but it could extend to all financial institutions. He talked about the circumstances of several insolvencies that have occurred during the last 15 years in his presentation: Actuaries as Risk Managers.

This February, the club was delighted to have Mike Lombardi, past president of the Canadian Institute of Actuaries and managing principal of Tillinghast-Towers Perrin, to speak on a timely topic—What went wrong? Actuarial Perspectives on the Global Financial Crisis.

CAUSES OF THE CREDIT CRUNCH

Mike began by examining the causes of the credit crunch. The crisis started with real estate bubbles in the United States that were swapped all over the world. He highlighted four main reasons leading to the financial tsunami.

- **Liberal monetary policy.** After the 9/11 and dot-com crises, the interest rate had been suppressed to an arbitrarily low level for too long. Coupled with the multiplier effect, the bubble eventually became unmanageable.
- **Boom in the housing market.** The low interest rate environment created a strong demand for mortgages. Traditional banks were unable to keep up with demand, and therefore securitized the loan portfolios to generate more lending capacity with the assistance of investment banks and insurance companies.
- **Relaxed lending practice.** Financial institutions, driven by a short-term incentive system, engaged in aggressive lending practice. Their business model changed from "originate-and-hold" to "originate-and-distribute," and those financial institutions would not suffer any loss as a result of relaxed underwriting standards under the new business model.
- **Inaccurate credit ratings.** Rating agencies had conflicts of interest when issuing credit ratings on securitized investment products, because they were paid by the product originators. Also, the assumptions of the credit models were based on historic data, which were inappropriate if systemic risk came into play in the financial crisis.

VICIOUS CYCLES BETWEEN FORECLOSURE AND BANK INSTABILITY

The value of those derivative products is contingent on home prices. As housing prices decline, negative home equity is created, which encourages more home owners to forfeit their mortgages. The home owners return back their mortgages to banks, and the banks liquidate foreclosed homes at a loss. As involuntary

"Self-regulation sometimes becomes no regulation."

Standing left to right - Paul Chow (President) presented a trophy to Mike Lombardi (Guest speaker) who spoke in the Chinese New Year Meeting 2009.

foreclosures increase, the housing prices are pushed down further.

Meanwhile, the mortgage default reduces mortgage payments, and affects the value of derivative products. Bank's required capital is eroded, their lending capacity is slashed. The money velocity is being slowed down, and it affects the whole economy. Unemployment rate rises, and triggers more mortgage defaults.

Banks suffer double jeopardy. The economic loss is accentuated by the bank's leveraging. The higher the leverage, the larger the magnifying effect. Those investment and commercial banks with high leverage (>25) failed, and required governmental intervention.

IMPACT ON INSURANCE COMPANIES

Insurers are suffering from deteriorating capital ratios. Low current yields mean higher reserve levels are required. The depressed equity market erodes surplus level, and increases unrealized capital losses. For those insurers underwriting guaranteed investment products, those guaranteed options are "in-the-money" now, and insurers have to put aside more reserves.

Insurers are short of cash, but it is difficult to raise debt or additional capital in the current economic environment. For those who have not hedged against fee income, a decline in equity value means lower fee income.

The adverse situation is hoped to be reversed and reserves can be released when the equity market recovers.

Actuarial Perspectives on Risk Management
After considerable thought and discussion to strengthen the risk management system, the actuarial profession is proposing the following.

Global Risk Designation. Knowledge is a foundation of risk management. The Society of Actuaries identified core knowledge and skills, and created a new designation, CERA, to equip members for the emerging risk management practice. The SOA is also working with the International Association of Actuaries (IAA) to develop a globally recognized risk management designation to strengthen the brand recognition of the new designation.

The PRACT Executive Committee and Mike Lombardi (Guest speaker)
Front row, standing left to right - Houston Cheng, Amie Lee, Si Xie, Vivian Yip
Back row, standing left to right - Peter Au, Steve Chan, Tyler Zeng, Alex Zaidlin, Alan Wong, Paul Chow, Edmund Guan, Mike Lombardi, Benny Wan

CONTINUED ON PAGE 38

Actuaries and Risk Management … | from Page 37

Risk Culture. You get what you paid for. Financial institutions have to review the current compensation system, and make sure that incentive pay must be aligned with risk. The chief risk officer must not only report to C-level management, but also be independent and subject to professional standards.

Accounting and Regulations. A global accounting standard is needed to prevent accounting arbitrage and avoidance of regulations across countries. Regulations are suggested to be counter-cyclical, and capital requirements are nicely to be dynamic and responsive to changing risks.

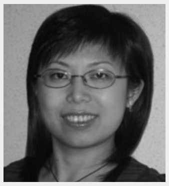
More Coherent Risk Measures. Conditional Tail Expectation (CTE) is a better measure than Value-at-Risk (VaR), because CTE measures the expected tail risk.

OPEN QUESTIONS

Mike's presentation was very apt and well received. It sparked lively discussion with the audience. His full presentation was recorded and posted on the club's Web site. For those who missed Mike's presentation, you have a second chance to view it again.

The Pacific Rim Actuaries' Club of Toronto welcomes all readers whether living locally or visiting Toronto, and is very grateful for the many insurance companies, reinsurers, consulting firms, accounting firms and software companies who have been loyal supporters of the club for many years. Information on future meetings is available on the club's Web site (http://www.pacificrimactuaries.ca/) □


New
Professional
Development
E-Courses
Take advantage of these additional opportunities to grow your knowledge on a variety of important and valuable subjects, while earning continuing profession development (CPD) credit, from the convenience of your computer.
The new e-course topics include:
· decision making and communication,
· enterprise risk management,
· financial economics,
· financial reporting and operational risk,
· fundamentals of actuarial practice,
· health systems overview,
· investment strategy,
· pricing, reserving and forecasting,
· regulation and taxation and
· social insurance.
Learn more and register today at WWW.SOA.ORG.



Xueyun Huang, ASA, is deputy director at China Life Reinsurance Co Ltd in Beijing, China. She can be reached at *huangxueyun@chinalifere.cn.*

Highlights of the International Seminar on Risk and Solvency Management

By Xueyun Huang

Recent global financial crisis has brought risk management into sharp focus for financial services organizations around the world. Both regulators and companies in China are increasing efforts to look at their risk management practices, and more importantly the implementation and continued execution of their risk management policies.

To address solvency issues arising from the rapid growth of China's insurance market and its increasingly complex risk environment, the China Insurance Regulatory Commission (CIRC) has introduced a new regulatory regime aimed at enhancing its supervision over the solvency of Chinese insurers. Unlike the 2003 rules, which focus on solvency margins calculated as the ratios of assets to liabilities, the New Provisions require the assessment of solvency on the basis of risks to which the insurer is exposed.

In order to help the professionals working at insurance companies in China to exchange ideas and learn international practices on corporate governance and risk management of the insurance sector, the China Association of Actuaries (CAA) initiated the International Seminar on Risk and Solvency Management. SOA, CAS and IAAust were invited to be the co-sponsors by contributing ideas and sending representatives to give presentations at the seminar. The event was successfully held in Beijing on March 27, 2009 with over 150 participants. For me, as the MC for the morning sessions, and most other attendees, the seminar was a rewarding investment of time. It gathered together a diverse range of professionals from direct insurers, reinsurers, consulting firms and academics, in an interactive forum for one day of highly engaging sessions. From the analysis of internal & external risks faced by local insurers to using actuarial ideas to strengthen global financial risk management, the seminar covered a wide range of topics.

The day began with a welcome address by Chengfang Shen, director of the External Communication Committee of CAA. Chengfang is the chief actuary of Ping An Life Insurance Company (one of the top life insurers in China) and also a key member of the organizing committee of the seminar.

The first presentation in the morning was given by Shi-hao Zhuo, vice president and CFO at Sino U.S. MetLife Insurance Company. Shi-hao worked at the MetLife head office in New York for 10 years before returning back to China in 2004 to help establish MetLife's first joint venture company in Beijing. Shi-hao first analyzed the composition of insurance company's assets and liabilities. He further explained the invest-

ment risk, product pricing risk and management risk that life insurance companies face in their daily operations and shared his experiences on how to mitigate these risks.

The next presenter, Trevor Thompson, represented IAAust and spoke about how to use actuarial ideas to strengthen global financial risk management. Trevor is now the president of IAAust. He retired in 2002, following a brilliant career with AMP both in Australia and the United Kingdom. Trevor also has served on a wide variety of committees and task forces including the Corporate Governance Task Force, the Penrose/Morris Task Force, the Independent Peer Review Implementation Task Force, IAA Supranational Relations Committee, IAA International Education Program Committee, etc. With his vast experience and expertise, he could easily fill a half day with insightful analysis on such an important subject. However, he was only allocated 45 minutes, so he had to go through the slides very quickly. What he stressed during the presentation were the additional measures that actuaries believe to be needed to prevent future financial crisis in addition to the G20's common principles for reform.

These measures are:
• Introduction of more counter cyclical regulatory arrangement
• Creation of Country Chief Risk Supervisor role
• Wider use of comprehensive risk management concepts in banks and non regulated sector
• Improved use of ERM & risk governance

The last session before we broke for lunch was an analysis of external and internal causes of insurer's risks in China market. Dr. Zhi-gang Xie is the director of the Research Center for Insurance and Actuarial Science, Shanghai University of Finance and Economics. He has done many research projects on risk management and solvency regulation for insurance companies. He introduced the common methods used to identify risks, such as comparative study method, case study method, brainstorming method, etc. and shared the examples for each method. The main conclusions before the end of his presentation were:
• Key external risk factors for insurers in China
  - Social and politics
  - Regulations
  - Macro economy and investment
• Key internal risk factors for insurers in China:
  - Corporate governance
  - Senior management's decisions (risk preference)
  - Company's organization structure
  - Management's competence
  - Company culture
  - Human resource
  - Allocation of rights and responsibilities

The afternoon sessions led off with a presentation by Jonathan Zhao. Jonathan is the practice leader for the E&Y Far East Asia Actuarial Service Group. He transferred from the E&Y Insurance and Actuarial Advisory Services Group in Chicago to Hong Kong in 2005 to provide leadership and enhance coordination and knowledge transfer between E&Y Global and the Far East Asia Actuarial Services. Jonathan is a frequent speaker at various actuarial seminars and conferences. However, this time was special because he was the representative authorized by the SOA to attend the seminar and

CONTINUED ON PAGE 40

Highlights of the International Seminar … | from Page 41

gave a presentation on ALM. Jonathan analyzed the current risk environment faced by insurance companies and the drivers for ALM model in China. He further described a typical ALM structure, the key steps to build an ALM model, the use of replicating portfolio techniques and the applications of ALM model.

Next on the agenda were two speakers from Towers Perrin—Jenny Lai and Adrian Liu. Jenny is a consultant with the Tillinghast business of Towers Perrin in the firm's Hong Kong office. She is also currently the chair of the Asian Regional Committee of the Casualty Actuarial Society. Adrian is the general manager in charge of Tillinghast insurance consulting business in China. During the presentation, Jenny and Adrian shared with us the key findings of their 2008 Global Insurance ERM Survey. For the first time, the survey included a number of Chinese insurance companies. They further explored the challenges for Chinese insurance companies and how ERM can help in this aspect.

The last two speakers of the day were Michael Owen, representative from CAS and Tak Lee from Munich Re Hong Kong. Michael is a senior vice president of Guy Carpenter & Company and heads their analytical team supporting Greater China and Japan. His topic was about capital allocation. Michael compared various risk measures and explained how to select risk measures. He used several examples to demonstrate how to use Co measures, like co TVaR, co XTVaR or co Semivariance to allocate capital. Tak Lee is the General Manager of Munich Re Hong Kong Life Reinsurance. He is also presently chair of the Actuarial Society of Hong Kong Actuarial Guidance Note 7 (Dynamic Solvency Testing) Working Group and a member of the ASHK Life Committee. Tak reviewed the background information about the AGN7, introduced its latest development in Hong Kong and explained its implications for mainland China.

BEHIND THE SCENES AT THE SEMINAR

The participants are able to experience the exciting presentations and the guest speakers. What they may not be aware of is all the hard work in preparing for the conference. Planning for the International Seminar on Risk and Solvency Management took about six months. It is a very short period of time considering that organizing such kind of event is no small effort due to the breadth of topics, recruitment of speakers and coordination with SOA/CAS/IAAust.

It is my first time getting involved in organizing such kind of international actuarial conferences. What impressed me most is not only the local actuarial association's high efficiency by accomplishing all the work from finding the venue, sending out invitation and collecting registration information to printing our all the handouts within less than two months with only three staff, but also the role that SOA's China Region Committee (CRC) could play in promoting the profession together with the local actuarial organization. During a teleconference of CRC in December 2008, we discussed what we could do for the seminar. We then contacted CAA to suggest a topic on ALM and then recruit the speaker from Hong Kong as the representative of SOA to give the presentation at the seminar. When we were told by Chengfang Shen, key member of the organizing committee at CAA, that they would like to have an experienced senior actuary who has rich working experience both overseas and in local insurance company to be the first guest speaker, we helped talk to several potential candidates to check their schedules and finally invited Shihao Zhuo from Sino U.S. MetLife. This work is just the starting point for us. As our cooperation with the local actuarial organization is further strengthened, I'm sure we will continue to help build the image and the awareness of the profession in the China Region. □

International News **Announcements**

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 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/

INTERNATIONAL CONGRESS OF ACTUARIES

Cape Town, South Africa
March 7–12, 2010

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

JOINT IACA/PBSS/IAAHS COLLOQUIUM INDIA 2012

A joint colloquium of IACA, PBSS and IAAHS to be held in India in 2012 was proposed in May 2008 at the time of the Boston 2008 colloquium.

2009 CCA ANNUAL MEETING

November 1–4, 2009,
JW Marriott Starr Pass Resort
Tucson, Ariz.
http://www.ccactuaries.org/events/am2009/index.html

CARIBBEAN ACTUARIAL SCHOLARSHIP-UNIVERSITY OF WEST INDIES

The Caribbean Actuarial Scholarship was established in memory of Basil L. and Monica G. Virtue by their son-in-law, S. Michael McLaughlin, an actuary who graduated from the University of the West Indies. This scholarship is intended to be an annual award to UWI actuarial student(s) who demonstrate a strong record of accomplishment, leadership qualities and a commitment to becoming an actuary.

Download the Caribbean Actuarial Scholarship Application at:

CONTINUED ON PAGE 44

International News Announcements | from Page 43

http://www.actuarialfoundation.org/pdf/CaribbeanScholarship.pdf

For additional information contact The Actuarial Foundation at: *Scholarships@ActFnd.org*.

The Scholarship has just been launched and the first awards will be granted for the 2009/10 academic year.

The Scholarship Committee: Mike McLaughlin (chair), Allan Brender, Bob Shapiro, Cathy Lyn, Dave Holland, Daisy Coke and Lee Smith, with support from Actuarial Foundation Staff Eileen Streu and Eleanor Vogel.

The New Forecasting and Futurism (F^2) Professional Interest Section

In all countries, and in all practice areas, actuaries need to stay current with best practices in forecasting. To help actuaries accomplish this, the old Futurism Section has expanded its scope to include *all* forecasting practices applicable to actuarial work—not just futurism techniques. The new section is called the "Forecasting and Futurism Section," or F^2.

The new Forecasting and Futurism Section helps us stay current, and facilitates our professional development, by providing information about—and training in—forecasting and futurism methods and tools, including:

- What the methods and tools are (including basic forecasting techniques, such as time-series exponential smoothing and Box Jenkins methods, as well as more advanced techniques such as Bayesian methods, agent based modeling, and futurism techniques, many of which are not on the SOA exam syllabus),
- When to use them and when not to (based on experiential evidence),
- How to use them (including practical examples of their use, and best practice guidelines), and
- How to present the results.

This change in the section mirrors what is happening in the field of applied forecasting: traditional futurism techniques are now being combined with traditional statistical methods and newer modeling techniques (like agent based modeling) to produce more powerful ways to explore the future.

Following are upcoming events and activities of the new Forecasting and Futurism Section:

- Absent for several years, the section's newsletter returns this fall, with articles about how new developments in forecasting relate to actuarial work, as well as a review of the work and significance of Nassim Nicholas Taleb, author of *The Black Swan.*
- There will be a special panel discussion session at the SOA Annual Meeting with Nassim Nicholas Taleb. Watch Annual Meeting announcements for details.
- Members of the F^2 Section are working with lead ERM actuaries from the United States, Germany, and Australia to forecast the impact of emerging international risks.
- A Web 2.0 feature will enable section members around the world to hold ongoing virtual discussions about areas of interest in forecasting and futurism, including relevant books, special forecasting and futurism methods, and application areas. □

We invite your inquiries about the Forecasting and Futurism Section and encourage you to join! **To join, please complete and send in this form:** ***www.soa.org/files/pdf/SOAMembershipForm.pdf.***

Please contact Alan Mills (*alan.mills@earthlink.net*) or Ben Wolzenski (*bwolzenski@rgare.com*) with inquiries.

THE NEW SOCIAL INSURANCE AND PUBLIC FINANCE SECTION… A CROSS-DISCIPLINE, CROSS BORDER EFFORT

In discussing existing actuarial resources and ways to channel them to address critical social insurance and public finance issues, a group of "concerned actuaries" concluded there was an important gap in the actuarial arsenal. While the Academy of Actuaries works to address policy issues and the education of policymakers, the concerned actuaries see a need to educate the broader actuarial community on the challenges facing social insurance programs (and other public finance programs that beg for actuarial input).

SERVICE TO THE PUBLIC

In 2007, the major North American actuarial associations signed an agreement to operate in the public interest. They agreed that "It is important to identify, protect and advance the public interest in the work of our profession—its organizations and its members." At the very core of a profession is the concept of "service to the public." This new section gives the Society of Actuaries and the profession the platform for developing the research and professional education needed to address the ongoing fiscal and demographic challenges that we face in North America and around the world. It will enable the actuarial profession to address these important issues with the actuarial discipline that is so sorely needed.

MISSION

The purpose of this section is to develop consistent, high quality continuing education opportunities and to sponsor research into evaluating and managing social insurance programs, including pension plans, government funded health plans and unemployment insurance. The section will also address actuarially relevant aspects of public finance. The section's work will cross disciplines, including enterprise risk management, health and pensions. The participation of academics will be encouraged. Although North American actuaries are the primary target membership, it is expected that the new section will appeal to actuaries outside of North America as well.

PROPOSED ACTIVITIES

The functions and activities of the new section will include but not be limited to:

- Developing opportunities for consistent, high quality continuing education on fiscal and other issues surrounding the measurement and management of risks associated with existing and developing social insurance and public finance programs.
- Sponsoring fundamental research in social insurance programs and their related finance to further develop the intellectual capital from an actuarial perspective.
- Transferring intellectual capital to the broader membership and the public via section publications, CE content, webcasts and other means.

- Working with established professional organizations such as the American Academy of Actuaries, the National Association of Social Insurance and others to share views and leverage resources.

COOPERATION WITH OTHER SOA SECTIONS

It is intended that the new social insurance and public finance section will complement, not diminish, the importance of membership in other SOA sections and committees. The Social Insurance and Public Finance Section realizes the only way to accomplish its substantial goals is to leverage resources both inside and outside the profession. We will continually look for ways in which we can complement the work of others while providing additional resources where needed.

THE IMMEDIATE FUTURE

The organizers of the new section believe it will advance the profession, extend its influence, create opportunities for actuaries and serve a broad range of stakeholders. We strive to bring the abilities of actuaries in multiple disciplines in multiple countries to the substantial social insurance and public finance issues that face us. The goal is to develop actuarial research and continuing education capabilities that are held in the same high regard by stakeholders as existing SOA programs for the private sector. All of us are impacted by social insurance programs and by many public finance programs. The better informed we are the better we can inform and improve policy decisions. For those of you who are not yet members of the section, we hope you will consider joining us. You can find out more about us by visiting the SOA Web site.

Clearly this is an important time for all of us to participate in the public dialogue. Better informed actuaries will lead to better policy decisions. The first council elections are coming and they will have an impact on the direction of the section. If you are already a member, thank you. We hope you will continue volunteering your time and energy. We are looking for writers, speakers and program ideas. Contact one of the section organizers if you'd like to be placed on the volunteer list. The organizers include Bart Clennon, Jeremy Gold, Fred Kilbourne, Mark Litow, Bob Shapiro, and Jim Toole.

6th Conference in Actuarial Science & Finance

on Samos (Greece), June 3-6, 2010

The Department of Statistics & Actuarial Financial Mathematics of University of the Aegean is pleased to host the 6th Samos Conference. Detailed information can be found on the Web site:
http://www.actuar.aegean.gr/samos2010/

This event, jointly organized with the *Katholieke Universiteit Leuven, the Université Catholique de Louvain and the Københavns Universitet,* provides a forum for state of the art results in the area of actuarial science and finance. The meeting is open to people from Universities, Insurance Companies, Banks, Consulting Firms or Regulatory Authorities, interested in actuarial financial mathematics.

TOPICS:

- *Modelling Catastrophic Risks in Insurance and Finance* (Chair: **Holger Drees**)
- *Risk Measures in Non Life Insurance and Portfolio Management* (Chair: **Zinovyi Landsman**)
- *Risk and Stochastic Control* (Chair: **Soeren Asmussen**)
- *Financial Risk Management* (Chair: **Thaleia Zariphopoulou**)
- *Modelling Dependence in Multivariate Risk* (Chair: **Gena Samorodnitsky**)
- *Decision Making in Life, Health and Pension Insurance* (Chair: **Mogens Steffensen**)

A short course will be given before the conference (May 31–June 2) under the title:
Financial Modelling with Levy Processes, by **Rama Cont**—Columbia University, USA

INVITED SPEAKERS:

- **Philippe Soulier**—*University Paris X, France*
- **Paul Embrecths**—*ETH Zurich, Switzerland*
- **Peter Glynn** —*Stanford University, USA*
- **Xunyu Zhou** —*Oxford University, United Kingdom*
- **Henrik Hult**—*KTH (Royal Institute of Technology), Sweden*
- **Erhan Bayraktar**—*University of Michigan, USA*
- **Seva Shneer**—*Eurnadom, The Netherlands*

SCIENTIFIC COMMITTEE

Albrecher Hansjoerg
Asmussen Soeren
Cheliotis Dimitris
Drees Holger
Foss Serguei
Gerber Hans
Goovaerts Marc
Konstantinides Dimitrios
Makov Udi
Marceau Etienne
Mikosch Thomas
Morettin Pedro
Ng Kai Wang
PapaioanouTakis (Chair)
Samorodnitsky Gena
Steffensen Mogens
Teugels Jef
Tang Qihe
Zariphopoulou Thaleia

UNIVERSITY OF THE AEGEAN

KATHOLIEKE UNIVERSITEIT LEUVEN

UNIVERSITÉ CATHOLIQUE DE LOUVAIN

UNIVERSITY OF COPENHAGEN

SOCIETY OF ACTUARIES International Section

475 N. Martingale Road, Suite 600
Schaumburg, Illinois 60173
p: 847.706.3500 f: 847.706.3599
w: www.soa.org

International News