SOCIETY OF ACTUARIES Reinsurance Section

Reinsurance news

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Low Interest Rates Continue To Be A Bane For Canadian Insurers

By Kulli Tamm & Thomas Holzheu

The interest rate environment is strategically important for the profitability of insurers. In addition to being built into the pricing of insurance products, interest rates also impact the actuarial, accounting and economic valuation of insurers. In Canada, in particular, the actuarial and accounting practices take rate changes into account from the outset, and any impacts from interest rate fluctuations are reflected in the quarterly financial reports. A recent Swiss Re Expertise publication takes an in-depth look at the history of interest rates in Canada, and the mechanisms that make insurers interest rate sensitive. The paper also explores how insurers can manage their risks from interest rate sensitivity now and in the future.

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Actuaries
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Reinsurance news

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Call for Articles for next issue of Reinsurance News.

While all articles are welcome, we would especially like to receive articles on topics that would be of particular interest to Reinsurance Section members.

Please e-mail your articles to Richard Jennings (*richardcjennings@gmail.com)* or David Xia (*dxia@mit.edu*).

Some articles may be edited or reduced in length for publication purposes.

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Chairperson's Corner

By Audrey Chervansky

It is that time of year again—time for the "changing of the guard" within the Reinsurance Section Council. It has been a great experience to have served on the Council—and on behalf of Mike Kaster, Paul Myers and myself, we want to thank you for the opportunity. Serving on the council has allowed us to bring forward initiatives that we felt were important to our membership and to expand our contacts within the reinsurance community.

Audrey Chervansky is vice president and marketing actuary with Swiss Re in Armonk, NY. Audrey can be contacted at audrey_chervansky@swissre.com.

As chairperson, I am proud of all that we have accomplished over the past year. It has been both an exciting and productive year on many fronts:

- Over 50 members attended the well-received Advanced Reinsurance Seminar this past August.
- Planned and coordinated more than 10 sessions between the SOA's Health Meeting, L&A Symposium and Annual Meeting.
- Sponsored timely research projects on Term Conversion Experience and Living Benefit Riders—scheduled for completion during early 2015.
- Expanded our reach within the reinsurance community with our recent Administration Best Practices webinar (reached 65 sites and approximately 400 listeners).
- Launched a new Reinsurance e-blast.
- Continued publishing the high quality Reinsurance News.
- Expanded LEARN material to incorporate the Affordable Care Act and presented to an additional three states.

My three years on the council have made me acutely aware of the many strengths within the Reinsurance Section. We have strong interest—more than 2,000 members, great enthusiasm—numerous volunteers and candidates interested in running for the council, and much talent. Add this to a solid financial base—and our potential is unlimited! So, keep the ideas and suggestions coming …

Best wishes to the incoming chairperson, Mike Mulcahy, and the rest of the returning council members. Congratulations to the new members who were recently elected. And many thanks to the SOA for all of their support and guidance.

Looking forward to participating with all of you in the section's activities during the year ahead!

SOA Reinsurance Section Group on LinkedIn: *https://www.linkedin.com/groups?gid=3026693&goback=%2Egmp_3026693* ■

A LONG SLIDE DOWN

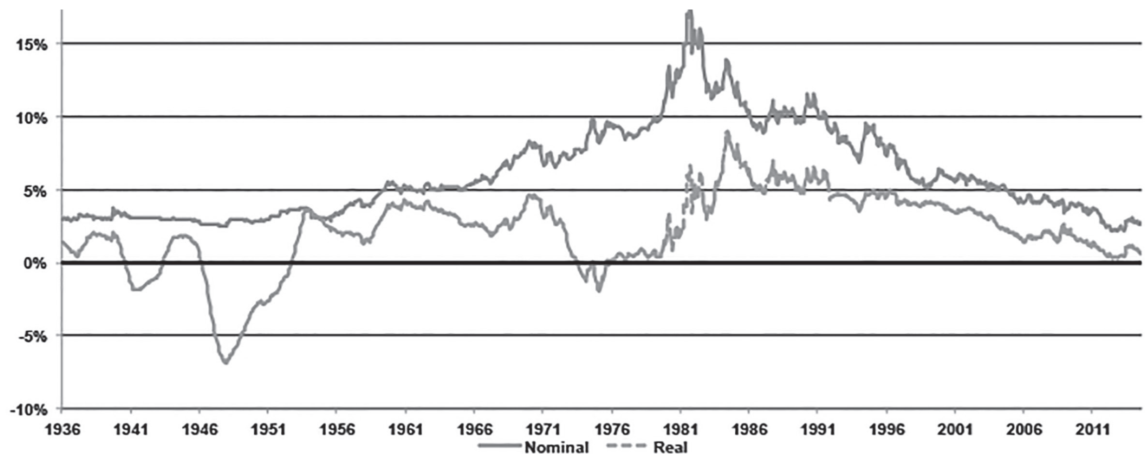
Interest rates in Canada and elsewhere have been on a down-trend for the last 30 years, with real rates falling to near zero by 2011 (see Figure 1: Nominal and real government bond yields in Canada, over 10-year duration, January 1936-July 2014). In nominal terms, the recent decline was particularly dramatic in 2011, when the yield on the long bonds fell more than 100 basis points over year-end 2010 levels in just one year. Post-crisis accommodative monetary policy means interest rates remain muted, with the Bank of Canada's overnight rate on hold since Sept. 2010, and the 10-year government benchmark rate below 3.5 percent for already more than four years. While Canadian insurers have experienced periods of prolonged low real interest rates before, the share of interest-sensitive products is higher today than in the past, and therefore the current low rate environment is more stressful.

PRESSURE FOR LIFE

Life insurers are more exposed to the low rates given a larger share of long-tail products. This makes liabilities more difficult to match with assets of suitable duration, though each company's vulnerability depends on their product mix. The most significant impact is on: (1) fixed annuities where the insurer guarantees the policyholder a certain crediting rate over a given period of time; (2) long-term care (LTC), where the contribution to profitability from investment income was expected to be sizable; and (3) Universal Life products which also face spread compression and where secondary guarantees became "in-the-money" from the policyholder perspective (see Figure 2: Sensitivity of life products to interest rates by product type). Segregated fund products are more sensitive to equity markets. Still, the fees charged for the guarantees offered can be insufficient to maintain profitability in a low interest rate environment, as low and volatile interest rates lead to increased hedging costs.

In general, Canadian life insurers have become more interest-rate sensitive over the past decade or so, with Universal Life products making up more than 40 percent of new individual life product premiums between 1998 and 2008, and fixed annuities enjoying record sales from 2008 to mid-2010 according to data from LIMRA. Although LTC product sales are still miniscule in Canada, some Canadian insurers participate in the vast U.S. LTC market. Additionally, segregated funds account for the largest chunk of individual annuity products sold in Canada, adding significantly to hedging costs throughout the post-crisis period.

FIGURE 1: Nominal and real government bond yields in Canada, over 10-year duration, January 1936-July 2014



Source: CANSIM, Datastream, Swiss Re Economic Research & Consulting.

Note: Real rate based on information from long-term real return benchmark bond yield since Nov. 1991. Values going further back refer to nominal bond yields, deflated by inflation expectation estimates (calculated as centered, three-year moving averages of CPI inflation at each point in time).

FIGURE 2: Sensitivity of life products to interest rates by product type

Highest	Medium			Lowest
Fixed annuities	Long term care, universal life	Segregated funds (variable annuities), disability	Whole life, term life	Group life, retirement savings, health insurance

Source: CIPR, Standard & Poor's, Swiss Re Economic Research & Consulting.

Meanwhile, P&C insurers are mostly affected through declining investment yields. That same pressure on spreads through depleted asset returns also greatly impacts any and all life products with guarantees, where insurers effectively or implicitly promised a minimum return on reinvested policyholder premiums. Current long-term yields are barely at those promised minimum levels, and maturing investments that have to be reinvested at today's rates are squeezing life insurers' margins. Even long-term policies without guarantees are affected, since higher interest rate expectations at the time of underwriting were assumed to contribute to profitability. Moreover, both life and P&C segments have to factor interest sensitivity into their capital requirements.

LOWER FOR MUCH LONGER?

The best case interest rate scenario for insurers would be a gradual return to "normal," which is the most likely path over the next two to three years; though insurers must plan for a range of interest rate scenarios.

Importantly, it is highly unlikely that we'll see a repeat of the past 40-year interest rate averages, as those are skewed by the high-inflation period of the late 1970s and early 1980s. Even the average yield on 10-year bonds of 5.2 percent since 1991 when the Bank of Canada adopted inflation targeting is higher than the projected "run rate" going forward once the economy returns to full capacity—forecast to be just 4.5 percent. Moreover, these levels are not expected until 2017 at the earliest, so insurers still have to contend with relatively low rates for at least a few years.

Some economists talk of a "new normal" or even "secular stagnation," where today's low rate environment is here to stay permanently. They expect the run rate for 10-year bond yields to remain below 4.0 percent or even 3.5 percent. Japan since the mid-1990s provides a haunting example. At the same time, others worry about a potential spike in inflation due to all the monetary stimulus measures undertaken by many central banks post crisis. Given the credibility of the Bank of Canada and other advanced market central banks, this latter scenario has a much lower probability. The continued "lower for longer" scenario is somewhat more likely, though the Swiss Re Economic Research & Consulting baseline forecast is a return to better growth and slowly rising interest rates over the next few years.

MANAGING THE SENSITIVITY

Enterprise risk management (ERM) is crucial for managing current interest rate sensitivity, as actual outcomes often deviate greatly from previous expectations, and insurers need to be prepared for that. Although insurers are generally more aware of ERM than other sectors, more in-depth implementation may be necessary at companies where some of the related regulatory tools such as Dynamic Capital Adequacy Testing are merely used as a compliance exercise. The Own Risk and Solvency Assessment in effect in Canada since Jan. 2014 is a step in the right direction to help companies stay focused on risk management. However, ERM is a continuous process, and thus the approach should be periodically re-evaluated, and scenario testing updated to keep abreast of the latest risk scenario developments.

For life insurers, new product design is the most effective means for insurers to manage interest rate sensitivity going forward. Although in-force blocks cannot be changed, price increases and less generous guarantees have already been implemented by many companies to help relieve the squeeze on profitability. New policies could be made more flexible through adjustable pricing that reflects market developments. This could also allow for better asset liability matching. Overall, products can be simplified, for example with the removal of non-key guarantees and options, but it is important that insurers understand which policy features consumers value and are willing to pay for.

Find out more by reading the full report here: *http://media.swissre.com/documents/Expertise_Publication_The_effect_of_the_interest_rate_environment_on_canadian_insurers_Jul_2014.pdf* ■

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Standing At The C-ROSS Of China's Insurance History; An Outline Of China's Risk Oriented Solvency System (C-ROSS)

By Dr Zhao Yulong

Zhao Yulong is the deputy director of Finance (and Solvency Regulation) Department of China Insurance Regulatory Commission.

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Background

After enjoying a few decades of rapid growth, China's insurance industry had accumulated total assets of USD 1.34 trillion at the end of 2013. The annual premium, with an annual growth rate of 18% in the last ten years, reached USD 0.27 trillion in 2013.

The market may be booming but the insurance industry is also facing several issues:

- risk management capability is generally weak and not in line with market growth;
- capital efficiency is low due to the volume-based solvency regime;
- long-term investment is not performing well; and
- expenses are high.

As a result, a few cases of 'not looking after the interest of customers' were seen in recent years, including misleading sales and difficulties making insurance claims.

The China's Insurance Regulation Commission (CIRC) conducted an analysis and concluded that the existing simple, but overly strict, regulation environment had contributed significantly to these issues arising.

Currently, the CIRC operates a factor-based solvency system similar to Europe's Solvency I regime. It is volume driven and focuses on the quantitative assessment with no risk management requirements. Due to the lack of any links between risk management and the regulatory capital requirement, there is no incentive for insurance companies to build comprehensive risk management frameworks. This system worked well in the early stages of market development and served as the first step to the solvency management of insurance companies in China. However, the market's self-discipline mechanism is weak under this system, and the regulator has had to strictly regulate insurers at the front line, i.e. the premium rate, investment channels, product terms and conditions.

This approach is not in line with the overall objective of China's market-oriented reform of the financial industry and the CIRC's strategic goal to "open up the front, regulate the back". Recognising these shortcomings, the CIRC decided to launch a project to develop a new regulatory framework to reduce front-line regulation and to strengthen the insurance industry's market economy. As a result, the C-ROSS project was launched in April 2012.

C-ROSS

To develop the new system, the CIRC conducted a thorough study of regulation and supervision trends across the globe for example:

- Insurance Core Principles from the International Association of Insurance Supervisors;
- Solvency II from Continental Europe;
- Solvency Modernisation Initiative from the National Association of Insurance Commissioners in the US;
- Risk-Based Capital 2 from the Monetary Authority of Singapore; and
- Life and General Insurance Capital from the Australian Prudential Regulation Authority.

A great deal was learnt from these recently developed principles and systems. In the interim we also realized that China has its own characteristics as an emerging market and that no single regulation fits all markets. C-ROSS has been developed to meet local market needs—but it may also be useful to other emerging markets.

SKETCH OF C-ROSS

Similar to the Basel system, C-ROSS adopted a 'three pillar' solvency framework. However, by developing Chinaspecific approaches and placing different emphasis in each pillar, China's 'three pillar' framework is intended to fully reflect its own evolution.

PILLAR I – QUANTITATIVE ASSESSMENT

There are five key components under Pillar I, including:

1. own fund;
2. minimum capital;
3. solvency ratios;
4. stress testing; and
5. regulatory measures

Own fund is the difference between admissible assets and admissible liabilities and any such capital is classified into four categories under the technical standards: Tier 1 core, Tier 2 core, Tier 1 ancillary and Tier 2 ancillary. Lower ranked own funds will be admissible with reference to Tier 1 core own fund.

Minimum capital is the total capital requirement, and consists of inherent risk, control risk and system risk. Inherent risk is the risk that objectively exists in the business activities of insurance companies, and includes both quantifiable risk and unquantifiable risk. Quantifiable risk consists of insurance risk, market risk and credit risk, whilst unquantifiable risk consists of operation risk, strategy risk, reputation risk and liquidity risk.

The quantifiable risk is calibrated and assessed by a VaR approach under Pillar I. The unquantifiable risk is qualitatively assessed under Pillar II. Control risk is the risk that the internal management and governance of the insurance company is ineffective or invalid, and as a result, the inherent risk is not identified and controlled in time. The control risk capital is calculated by a scoring system under Pillar II. System risk is the risk caused by the external environment and macroeconomy and is a global risk in the insurance system. It is normally un-hedgeable. There are four types of system risk capital, i.e. the risk capital to adjust counter-cyclical effect, capital requirement on Domestic Systemically Important Insurers (D-SII), capital requirement on Global Systemically Important Insurers (G-SII) and other capital adjustment to defend the system risk.

Stress testing is another important quantitative measure of solvency. If the solvency ratio is an indicator of a company's current solvency, stress testing reveals the sustainability of a company's solvency. We include mandatory, voluntary and reverse scenarios in stress testing.

Regulatory measures are instruments to enforce Pillar I regulation. Two solvency ratios are monitored: the core solvency ratio (Tier 1 core capital/ minimum capital requirement) and the aggregated solvency ratio (own fund/ minimum capital requirement). A company with an aggregated solvency ratio below 100% will have different regulatory measures applied to rectify the problem according to its specific risk exposure. Whilst a company with a core solvency ratio below 50% for a number of consecutive periods will have more serious measures applied, like suspension of new business, takeover and restructure by the regulator or moving to bankruptcy/liquidation.

PILLAR II – QUALITATIVE SUPERVISOR REQUIREMENTS

Under Pillar II, CIRC focuses on four risks, which are important but difficult to quantify currently given companies' technical capabilities and data availability. These four risks are operational risk, strategy risk, reputation risk and liquidity risk. As well as the regular

supervision measures like analysis and examination, the CIRC intends to apply the following two supervisory assessments under this pillar:

1. Integrated risk rating (IRR): CIRC comprehensively evaluates an insurer's overall risk rating based on both quantitative results under Pillar I and qualitative risk assessments under Pillar II, which will classify a company into four levels of risk, with different regulatory measures applied according to the risk level.

2. Solvency Aligned Risk Management Requirements and Assessment (SARMRA): The companies' own solvency management (COSM) plays an important role in the C-ROSS regime. CIRC will set up minimum standards of risk management for insurers and periodically evaluate their implementation. These standards will include governance structure, internal controls, management structure, processes, and assess insurance companies' risk management capability and risk profile.

One key feature of Pillar II is to motivate companies to establish a comprehensive enterprise-wide risk management framework. This is achieved by introducing control risk capital, which is determined by the result from SARMRA assessment under Pillar II and serves as an adjustment to the minimum capital under Pillar I. The control risk capital is a reduction to minimum capital for companies with a well-implemented risk management framework and an increase for companies with poor risk management.

PILLAR III – MARKET SELF-DISCIPLINE MECHANISM

Pillar III incorporates three aspects: the insurance company's public information disclosure; the regulator's public information disclosure; and the insurance company's credit rating. All these will require a more transparent disclosure and enforced supervision on insurance companies from media, investors, rating agencies, financial analysts and the general public, thereby maximising the market self-discipline mechanism. Self-regulation complements the C-ROSS system, and overcomes any limitations in supervisory resources.

BEYOND C-ROSS IMPLEMENTATION

We are standing at a major crossroad in China's insurance history, heading towards an era of a much more open and competitive market. The regulatory environment will be risk-oriented with scientific quantitative assessment and comprehensive qualitative assessment. The market self-discipline mechanism will play an important role.

The industry will see strengthened market reform, particularly through market entry and exit, investment channels and premium rates. Companies with superior risk and capital management strategies will enjoy improved capital efficiency, higher returns on capital and more competitive advantages. Last but not least, customers and investors will be better protected by increased disclosure and transparency.

We are confident that C-ROSS will drive the market reform of China's insurance industry, enhance capital efficiency, inject vitality, exploit the market potential and strengthen risk management awareness and techniques. Ultimately we envisage a more mature insurance industry with increased business development opportunities within China for international insurers. ■

Ebola—Not The Next Pandemic?

By Ross Campbell, Gen Re, London

The increasing alarm surrounding the most recent outbreak of the Ebola virus disease (EVD) is a chilling reminder of the potential for the spread of viruses to rapidly reach epidemic proportions. The virus causes hemorrhagic fever marked by severe bleeding, organ failure and, often, death. The first recorded outbreak was in 1976 and since then EVD has recurred sporadically in Central and Western Africa claiming over 3,000 lives.

The scale and spread of the current emergencies in Guinea, Sierra Leone and Liberia are of concern as the disease has claimed more lives than any previous outbreak. Cases have also now been confirmed in Nigeria and Senegal. The World Health Organization (WHO) has confirmed 9,000 cases but believes the numbers may be under reported five-fold. The current mortality rate is 50 percent with an unprecedented number of health workers counted amongst the dead.

EVD is typically transmitted within small communities and health-care settings, but it has now appeared in cities as well as rural and border areas. It is also striking that this outbreak occurred almost simultaneously in three previously unaffected countries. Fears modern logistics could facilitate spread to other countries within Africa, or even internationally, have been confirmed.

WHO has therefore escalated its response in a bid to halt ongoing transmissions within six to nine months but conceded in August its Ebola Response Roadmap that accomplishing this goal will be tough as affected countries struggle to control the outbreak "against a backdrop of severely compromised health systems, significant deficits in capacity and rampant fear."

Now, and for the first time, a person has developed symptoms whilst on U.S. soil, following a visit to Liberia. Although serious, an isolated case can be contained; such is the strength of U.S. health care. In contrast EVD cases will continue to rise in West Africa if there are "no additional interventions or changes in community behavior" according to Centers for Disease Control models. The lack of sufficient isolation beds is the root cause for the sustained and rapid growth in new infections.

DIAGNOSIS AND TREATMENT

Outbreaks of EVD occur primarily in remote areas following close contact with the wild animals that host the virus. It spreads easily between humans through direct contact with broken skin and damaged mucous membranes, during sex, infected blood and bodily fluids including sweat, or indirectly through contact with virus contaminated environments. People remain infectious as long as their blood and secretions contain the virus, typically up to seven weeks, and this risk persists even after death. Family members are often infected as they care for sick relatives or prepare the dead for burial.

A person infected with EVD complains of sudden-onset fever, intense weakness with muscle pain, headache and a sore throat. These rather non-specific symptoms suggest a mild illness and raise the possibility of many diseases, including hepatitis, typhoid fever and malaria—all of which must be ruled out before a diagnosis of EVB can be made. During this time symptoms worsen to include vomiting, diarrhea, rash, impaired kidney and liver function, and in some cases, both internal and external bleeding.

The incubation period—the time interval from infection to onset of symptoms—is two to 21 days, so some people seek help sooner than others. An EVD diagnosis is confirmed in a laboratory setting by isolating the virus in cell culture, antigen detection or enzyme-linked immunosorbent assay (ELISA). Other findings include low white blood cell and platelet counts and elevated liver enzymes.

People severely ill with EVD require intensive care in total isolation. Supportive treatment includes intravenous fluid to prevent dehydration, and maintenance of blood oxygen and blood pressure levels, as most sufferers die of low blood pressure and not bleeding. Transfusions may be needed to replace blood lost through hemorrhage and subsequent infections need to be treated. In a rural setting where

CONTINUED ON **PAGE 10**

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EVD IS NOT AIRBORNE AND SO THERE IS NO CREDIBLE RISK OF A SWINE FLU-LIKE EPIDEMIC.

the health infrastructure is weak or mistrusted, and where cultural beliefs strongly influence how people interpret symptoms and seek treatment, diagnosis and intervention are likely to be delayed.

No specific drug medication is available although new drug therapies are being evaluated. The WHO has even agreed that it is ethical, in these extreme circumstances, to treat people with experimental interventions. One is ZMapp, a serum composed of three humanized monoclonal antibodies not yet evaluated for safety in humans but already administered to a couple of patients. Another is TKM-Ebola, which has recently received FDA approval for emergency use.

IDENTIFYING THOSE AT RISK

Travel to Africa increases the risk of exposure to the virus. The Centers for Disease Control warns to avoid all nonessential travel to infected areas and advises those who must travel there to protect themselves by avoiding contact with the blood and body fluids of people who are sick with Ebola. The WHO has stopped short of recommending travel restrictions or border closures but admits this position is fluid.

The ease with which people travel worldwide implies infection could spread rapidly and without control, but there is no evidence of this yet. Modeling of disease and air travel patterns revealed the probability of spread beyond the African region is "small but not negligible."[1] The International Air Transport Association advises that in the rare event a person infected with the virus is unknowingly transported the risk to other passengers is low. It seems highly unlikely that a person with the advanced signs of EVD—the stage when onward transmission is most likely—would be physically well enough to undertake air travel.

Health and humanitarian workers who disclose plans to travel to or from the region of concern pose an increased risk. No vaccine is currently available. Medical personnel may be infected if they fail to take appropriate precautions to avoid infection by wearing protective clothing, masks and gloves when tending to the patients. In this new outbreak, several health workers have been infected whilst treating patients with suspected or confirmed EVD and not strictly practicing infection control techniques.

Anyone who requires treatment in poorly equipped medical centers in the affected area may be exposed to re-used needles and syringes or contaminated equipment that has been improperly sterilized. People involved in animal research or observation have an increased chance of contact. Anyone who has been butchering or eating infected animals or who comes into contact with their waste, increases their chance of infection.

EVD makes people very sick very quickly, so it seems unlikely any person who has it would slip through the underwriting net. An applicant with unexplained or unusual illness and who has visited an affected area within the preceding month should be viewed with increased suspicion.

People who survive EVD make a slow recovery, taking many months to regain their weight and strength as the virus remains in the body for weeks. Typically they suffer hair loss, sensory changes, eye and testicular inflammation, hepatitis and general malaise. Survivors often develop chronic inflammatory conditions affecting the eyes (uveitis) and joints.

EPIDEMIC OR PANDEMIC?

It seems unlikely that EVD poses a threat beyond its immediate geographical location or the indigenous population and visitors working closely with them. Isolation centers, arrivals screening and modern treatment facilities would use quarantine to limit international spread and ensure that the rapid incubation of EVD experienced during the current outbreak is not replicated in other countries. A focus on basic public health and infection-control measures, not tiny supplies of costly experimental drugs, seems more likely to lead to control.

The WHO was praised for its work in containing the 2003 Severe Acute Respiratory Syndrome (SARS) epidemic in Asia albeit in wealthy nations with strong governments. Cuts in funding and altered priorities since then may have left the organization ill-equipped to respond to this new threat in nations less capable of mounting a defense. It is therefore entirely possible that the desperate situation in West Africa will continue to deteriorate.

The EVD outbreak has impacted the recovering yet still fragile economies of Liberia, Sierra Leone and Guinea. The costs associated with these outbreaks and disruption to commerce are unprecedented and likely to affect GDP—a reminder of the potential for epidemic disease to reach beyond the tragedy of individual loss.

In June 2009, as the number of people with H1N1 (swine) influenza reached 42,000 in 80 countries, the WHO elevated its pandemic alert to "level 6"—the highest emergency state. In the end that strain of flu proved far less deadly than was feared. Should life insurers and underwriters now be at "level 6" in response to Ebola? Despite the unprecedented dimension of this fast-moving outbreak, the evidence about its transmission and spread suggests not. Deadly though it undoubtedly is, EVD is not airborne and so there is no credible risk of a swine flu-like epidemic.

Follow the updates here;

http://www.who.int/csr/don/archive/disease/ebola/en/

http://wwwnc.cdc.gov/travel/notices/warning/ebola-liberia

http://wwwnc.cdc.gov/travel/notices/warning/ebola-guinea

http://wwwnc.cdc.gov/travel/notices/warning/ebola-sierra-leone ■

ENDNOTES

[1] Gomes MFC et al., "Assissing the International Spreading Risk Associated with the 2014 West African Ebola Outbreak," PLOS Currents Outbreaks doi:10.1371/currents.outbreaks.sd818f63d40e24aef769dda7df9e0da5

Accident & Health Reinsurance—Crazy Cat People

By Ted Clark

Ted Clark is president of Prism Information Management Group and vice president, Marketing at RMA. Ted can be reached at tclark@rmacan.com.

As the old saying goes, "accidents happen" and 2014 has been known for dramatic events that have attracted world attention. Malaysian Airlines, for example, has tragically lost two planes this year and over 550 passengers and crew in extraordinary circumstances. There have been a series of other, smaller, aviation accidents in the news, the most recent of which involved a candidate for the Brazilian presidency. Train derailments, ferry sinkings and bus crashes have made international news, as has an earthquake in Napa Valley, Calif., which fortunately did more damage to wine bottles than human life. Those in the Property & Casualty business will be familiar with the type of damage and liability claims that arise out of these events, and the structure of catastrophic programs generally. However, these concepts may be new to those in the ordinary life (re)insurance business where catastrophe protection and layering of coverage will seem like a strange way to conduct affairs. This may well leave some wondering if we are indeed "crazy CAT people."

Life catastrophe reinsurance protects an insurer against a sudden and/or dramatic loss of life in its portfolio as a result of a covered accident, freak of nature (read earthquake, tsunami or hurricane, etc.) or even a terrorist attack (if not specifically excluded). Accident & Health (A&H) reinsurance companies specialize in this business and it can be very lucrative—at least until it's not. Reinsurance is generally written on a Per-Event basis and is intended to cover loss amounts that exceed a pre-specified total claim figure, and hence termed "excess of loss." There are a few other acronyms and nicknames used, and because we are also dealing with A&H business, these names can be and are used interchangeably—sometimes within a single sentence. Per-Event Catastrophic Excess of Loss is often called CATXOL, CATXL or simply CAT. In the life area, this coverage will typically contain stated life warranties as part of the key terms. The life warranty stipulates that a certain number of individuals must be involved in the accident or loss before any amounts are recoverable. As a result, it may take three, five, 20 or more lives involved in a single incident before claims become eligible for reimbursement. CAT programs can start at any amount and can protect as low as $200,000 or $500,000 per event depending upon the portfolio, and they can provide coverage limits in the hundreds of millions or even billions of dollars. Consequently a CAT program may be expressed as $4,500,000 in excess of $500,000, subject to three or more lives involved in a single incident. In some instances the life warranty increases as the layers increase as set out in the example in Table 1.

Table 1: Cat Layer examples

Layer	Limit of Coverage	Retention	"Life Warranty"
1	4,500,000	500,000	3
2	5,000,000	5,000,000	3
3	10,000,000	10,000,000	5
4	30,000,000	20,000,000	7
Total	49,500,000	500,000	

This layering or stacking setup is frequently called "vertical" claim coverage because it protects against increases in claim amounts. This is contrasted with "horizontal" claims coverage which is protection against additional claims. In Table 1 the Retention in all layers after Layer 1 is the sum of the **Limit of Coverage** + the **Retention** (of the prior layer), and the maximum possible recovery for any loss is $49,500,000. However, in practice, the maximum limit can incorporate many more layers of coverage, or fewer layers but broader bands of coverage, and go as high as needed. The best way to understand how this works is to consider some claim examples as set out in Table 2.

Assuming that each of the losses submitted exceeds the stated life warranty, the recoveries are basically the amount of the loss, less the retention. If there were only four lives involved in the $25,500,000 loss, for example, then the last two layers of coverage would not respond, or pay out, because the life warranty has not been satisfied. A loss of $60,000,000 would exceed the limit of coverage and any amounts in excess of $50,000,000 would not be recoverable.

There is commonly a limit on the amount of loss that can be submitted under any single life. This is called the "Maximum Any One Life" or "Maximum Any One Person" limit which is referred to as MAOL and MAOP respectively, but sometimes used interchangeably. In addition to the CAT MAOP limits, there can be separate reinsurance purchased to protect individuals within a portfolio, and this reduces the claim submitted to the

Table 2: Cat Claim per Layer examples

Claim Recovery Amounts						
Layer	Limit of Coverage	Retention	"Life Warranty"	Recovery for a $750,000 Loss	Recovery for a $5.75MM Loss	Recovery for a $25.5MM Loss
1	4,500,000	500,000	3	250,000	4,500,000	4,500,000
2	5,000,000	5,000,000	3	-	750,000	5,000,000
3	10,000,000	10,000,000	5	-		10,000,000
4	30,000,000	20,000,000	7	-		5,500,000
Total	49,500,000	500,000		250,000	5,250,000	25,000,000

CAT. Per-Person Excess of Loss business is referred to by those "in the know" as PPXOL or PPXL. PPXL is a program of reinsurance that protects the ceding company for all losses from a single individual (the "per-person") which exceeds a stipulated dollar value, up to the limit of coverage. The trigger to coverage may be a single life or multiple lives. As in the CAT protection outlined above, PPXL business is frequently written in multiple layers. An example of this is "$300,000 in excess of $200,000, each and every person" and this coverage, subject to all its other terms and conditions, would protect a ceding company from all losses from any individual with claims greater than $200,000, which is the amount retained, up to a further $300,000, being the limit of coverage. Therefore a loss of $355,000 for a covered individual would result in a reinsurance collection of $155,000 (being the loss amount of $355,000 minus the $200,000 retention).

It is not uncommon for both CAT and PPXL protection to be written on a single block of business which is where the explanation, and the associated math, become really interesting. As in reviewing the layers, the best way to understand what happens is to review some claim

Table 3: Per Person Excess of Loss (XOL) Coverage Example. $1.8M excess of $200,000 each and every claim

		A	B	C = A - B	D = A - C	"E = D Total - B Total"	
Claimant	Date of Loss	Amount of Claim	Less: Reinsurance Retention	Per Person Amount Recoverable	Amount Subject to Catastrophe Protection	Catastrophe Amount Recoverable	Comments:
1	04-Dec-12	375,000	200,000	175,000			
2	06-Jun-12	180,000	200,000	-			Falls below retention of Per Person
3	06-Jun-12	250,000	200,000	50,000			
4	06-Jun-12	50,000	200,000	-			Falls below retention of Per Person
5	06-Jun-12	2,280,000	200,000	1,800,000			Capped at maximum recovery amount
6	05-Mar-12	3,500,000	200,000	1,800,000			Capped at maximum recovery amount
Total PPXL Recovery		6,635,000		3,825,000			

examples and flow them through different scenarios.

Table 3 demonstrates the impact of a stand-alone PPXL program which has been exposed to six claims comprising $6,635,000. To keep the example fairly straightforward, the PPXL is a single layer of $1,800,000 in excess of $200,000 per person. The results would be a recovery of $3,825,000 with two claims actually falling below the $200,000 retention and consequently not recoverable.

Table 4 takes those same claims and considers the impact on a CAT program without the benefit of recoveries from the PPXL. Here we are assuming that claims 2 through 5 are from a single incident that occurred on 6-Jun-2012 and therefore meet the criteria for aggregation and also exceed the three life warranty. In this instance the claims are aggregated together and combine to $2,760,000. From this, the retention of $500,000 is taken and the resulting recovery is $2,260,000:

Lastly, Table 5 calculates the impact of this claim set if both PPXL and CAT programs are applied with the PPXL "inuring" to the benefit of the CAT. Inuring means that the PPXL is calculated first and any recoveries are factored in before the CAT calculations are performed. This is to ensure that there are not more in recoveries from reinsurance than there were in actual underlying claims. To demonstrate the need for this, consider the following : Table 3 calculated the recovery on Claimant 3 to be $50,000 and Claimant 5 to be $1,800,000 for a total of $1,850,000. Table 4 showed that the sum of claims for claimants 2 – 5 was $2,760,000 and the recoveries on a CAT basis would be $2,260,000. If there were no inuring of coverage, then the total recoveries would be $1,850,000 for the PPXL and $2,260,000 for the CAT which equals $4,110,000, however the claims incurred for this event were only $2,760,000!

In Table 5, the PPXL calculations are unchanged and result in a recovery of $3,825,000, but because of the "inuring" provision, the CAT program losses are reduced

Table 4: Catastrophe Excess of Loss (XOL) Coverage. $4,500,000 in excess $500,000, with a 3 life warranty

		A	B	C = A - B	D = A - C	"E = D Total - B Total"	
Claimant	Date of Loss	Amount of Claim	Less: Reinsurance Retention	Per Person Amount Recoverable	Amount Subject to Catastrophe Protection	Catastrophe Amount Recoverable	Comments:
1	04-Dec-12	375,000					
Total for 04-Dec-12		375,000	500,000	-			Single life event, not recoverable from Cat
2	06-Jun-12	180,000			180,000		All claims for this date (as long as all were involved in the same accident) are added together and this is applied to the limits and retention
3	06-Jun-12	250,000			250,000		
4	06-Jun-12	50,000			50,000		
5	06-Jun-12	2,280,000			2,280,000		
Total for 06-Jun-12		2,760,000	500,000		2,760,000	2,260,000	
6	05-Mar-12	3,500,000					
Total for 05-Mar-12		3,500,000	500,000				Single life event, not recoverable from Cat
Total PPXL Recovery		6,635,000				2,260,000	

from $2,260,000 to $410,000 for a total recovery of $4,235,000 out of the $6,635,000 in total claims.

All this is very interesting, and it lends itself to many hours of mathematical spreadsheet fun, but why would an insurer want to purchase these types of protection and what is the attraction for reinsurers? Clearly disasters can and do have a significant impact on a company's balance sheet, but even single life losses for high dollar policyholders can cause concern. PPXL and CAT reinsurance are tools that are used to protect against these unforeseen events and often the cost is low relative to the risk and volatility. In the last several years there has been a great deal of competition in the A&H reinsurance marketplace, and there has been a reduction in the supply of Life CAT opportunities because of mergers and acquisitions which have led to higher retentions. Insurers also have the option of purchasing, or increasing, traditional reinsurance coverage to counter these exposures. CAT programs can be loss-free for many years and this leads some companies to cancel their protection, all of which puts downward pressure on pricing—at least until a large insured loss signals a correction in rates. For A&H reinsurers, the business is volatile and not for the faint of heart. The loss ratios in this business are typically either very good (and may remain so for many years) or very, very bad. However, the potential loss-free nature of CAT business makes this an attractive market and has indeed created a dedicated group of "crazy CAT people" willing to enjoy the ride. ■

Table 5: Per Person AND Catastrophe Excess of Loss (XOL) Coverage. $1,800,000 in excess $200,000 per person, plus $4,500,000 in excess $500,000, with a 3 life warranty

		A	B	C = A - B	D = A - C	"E = D Total - B Total"	
Claimant	Date of Loss	Amount of Claim	Less: Reinsurance Retention	Per Person Amount Recoverable	Amount Subject to Catastrophe Protection	Catastrophe Amount Recoverable	Comments:
1	04-Dec-12	375,000	200,000	175,000			
Total for 04-Dec-12		375,000	500,000	-			Single life event, not recoverable from Cat
2	06-Jun-12	180,000	200,000	-	180,000		Falls below retention of Per Person
3	06-Jun-12	250,000	200,000	50,000	200,000		
4	06-Jun-12	50,000	200,000	-	50,000		Falls below retention of Per Person
5	06-Jun-12	2,280,000	200,000	1,800,000	480,000		First 200k + excess over $2M = $480k
Total for 06-Jun-12		2,760,000	500,000		910,000	410,000	
6	05-Mar-12	3,500,000	200,000	1,800,000			
Total for 05-Mar-12		3,500,000	500,000			-	Single life event, not recoverable from Cat
Total Recovery		6,635,000		3,825,000		410,000	
Total Recovery for Both PPXL and CAT coverage						4,235,000	

Interview With Bob Tiessen

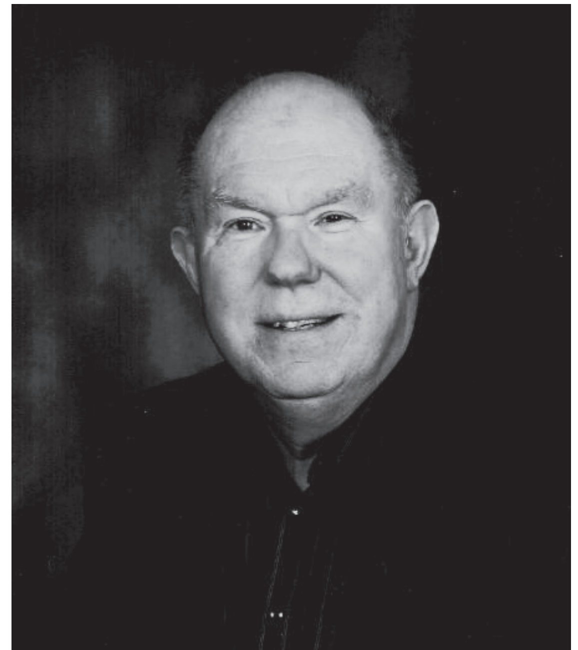
By Reinsurance News

First, thank you Mr. Tiessen, or should we call you Bob, for taking the time to speak with us. For our readers who may not be familiar with your career, could you tell us a little about how you got into the insurance business and your time with the Mercantile & General Reinsurance Group (M&G)?

My roots are in southwestern Ontario and all of my schooling has been there. I went to the University of Waterloo and initially tried the mathematics teaching option. Jobs were scarce and after one co-op work term as a high school mathematics teacher I switched to the actuarial science program. Waterloo was just starting to establish its actuarial science program at the time and my class was small compared to those that came later, one summer there were only four of us in the class. The co-op education system was very big at Waterloo and it was a great way to learn by being involved in the actual application of what you learned in the classroom.

My co-op teaching experience taught me that I was not a teacher of young adults and the actuarial examination process was intriguing. I also thought that actuarial science was more interesting than computer science at the time. I joined the M&G as a University of Waterloo Co-op student in 1971 which confirmed that actuarial science was the career for me. At the time, the actuarial pricing team was small and work was hardly standardized so your boss was very hands-on in what you did. My early bosses Gilles Dufresne and Peter Patterson were major influences on my early development as an actuary.

At the time the M&G was active in areas of the British Commonwealth and had been acquired by the Prudential of England from Swiss Re in the late 1960s. M&G started in Canada in 1957 and built its block of business by first dealing with other U.K.-based companies and offering underwriting services, especially in some areas then thought to be too risky such as diabetic risks. After establishing itself in Canada, the M&G expanded into the United States from its Toronto office in the late 1970s and grew rapidly in both life and health offerings. Eventually the Prudential decided that a large reinsurance operation was not something they wanted to own and made plans to spin off the M&G as a standalone entity. Near the end of this process Swiss Re came in and offered to buy the entire company, which they did in 1996.



Bob Tiessen

When I joined, actuarial pricing was being done with commutation tables or on 16 column manually created spreadsheets using electric calculators. I was doing Canadian individual life pricing at the time and we did very unusual things like pricing Joint-Life Last Survivor (JLLS) on a renewable term basis. I joined the M&G on a full-time basis upon graduation in 1974. The M&G was expanding into the United States and it was exciting to be part of that expansion. I worked on U.S. pricing and product development until 1992 when the U.S. side went through a major reorganization. We went from a functional to a client-based structure and I moved into the role of providing management information and supporting treaty work, our retrocession program and our internal and external audits. For a very short period of time I was also in charge of underwriting and helped write the manual section on private aviation. I stayed in roughly similar roles after the Swiss Re purchase of the M&G even though we changed the name to Risk Management. It was interesting to see reinsurance

change from what was in many aspects an underwriting support service to also be a pricing and product development support service. In the United States this would change again later to a financing support service.

What are some of the key moments in your career that you remember most?

Several things stand out for different reasons. Going from manual premium calculation to APL programmed spreadsheets and then to all-encompassing calculations systems like AXIS were a major change in that you could spend your time on product design and policy issues and not have to worry about calculation correctness so much. Contract or treaty wording was an aspect of reinsurance that I enjoyed working on. This seems to be an aspect of reinsurance that still generates the need for working groups. I worked on three of them during my career, and I recently saw that a group had produced a new report on the topic. Treaty wording is difficult because reinsurance has changed its role from underwriting to pricing to financing support of direct companies. Reinsurance counterparties in direct companies are looking for different things as a result of the changing nature of the reinsurance relationship. Being the actuarial editor for On the Risk and helping underwriters see the actuarial side of risk was something that I enjoyed as a cross-discipline role that I think actuaries should do more of. A final highlight was being able to get my team to develop a mortality study for our large-size cases where there were a lot of data issues to overcome. A nice side benefit was that the results surprised a lot of people.

With U.S. life reinsurance cession rates in decline, what is your view of the market and what should reinsurers be doing to remain viable?

Reinsurance is a tough business since you are helping your client do something that he/she is already doing well themselves. Therefore, you have to do some part of that job better, easier or cheaper. In the past, insurance companies could look to reinsurers, who were usually larger and often international, to have more underwriting exposure, to be able to access international reserving standards or have information on new product types from other countries. Much of this was changing when I retired in 2007. I still think that many organizations are

REINSURANCE IS A TOUGH BUSINESS SINCE YOU ARE HELPING YOUR CLIENT DO SOMETHING THAT HE/SHE IS ALREADY DOING WELL THEMSELVES.

afraid of risk or do not even know what kinds or how much risk they are taking. Reinsurers will need to be ahead of the field in spotting and managing these risks. Longevity risk is one area where risk is misunderstood to a large degree and one that it seems reinsurers are exploring more.

Many businesses are unbundling what they do in order to concentrate on what they do best. Insurance involves many risks: mortality or morbidity, lapse, interest rate, regulation, underwriting and claims practices. Reinsurers can provide support in these areas. They may need to change how services, such as underwriting manuals, are offered in order to provide and properly price those services.

What are your priorities now? What are your plans for the future?

While I did come back for a short-term specific project after retirement, I wanted to make a clean break from the business after leaving Swiss Re. I did serve on the boards of several charitable groups and am now working on my church's building expansion committee. My wife and I like to travel and right now we are looking forward to cruising to the Arctic Circle off Norway next summer.

We appreciate the time you've spent with us. Thank you, and all the best for the future.

Bob Tiessen, FSA, retired from Swiss Re Life & Health in Toronto, Canada. Bob can be reached at abtiessen@ rogers.com.

ReFocus 2015
March 1-4: Wynn Encore Hotel, Las Vegas

By Ronnie Klein

Ronnie Klein is global head of Pricing with Zurich Insurance Company Ltd., in Zurich, Switzerland. Ronnie can be reached at ronniefsa@aol.com.

I am a huge tennis fan. For those of you who know me, this does not need to be said. While I enjoy watching matches on television, I much prefer to see a tournament live. In fact, I have a career grand slam having visited each of the major tennis tournaments (the Australian Open in Melbourne, Roland Garros in Paris, Wimbledon near London and the U.S. Open in New York) at least once. I am very proud of this achievement and have a further goal of attending these tournaments all in one year—a calendar year grand slam!

Another accomplishment that I am proud of (no, not becoming an FSA, although I am pretty proud of myself for that as well) is attending all of the ReFocus meetings from inception. It has been great to see this meeting grow in terms of attendance from 291 in 2008 to 550 in 2014. But it has been even more rewarding to see the meeting grow from a reinsurance meeting to the premier life insurance meeting for senior insurance and reinsurance executives.

The success of ReFocus falls upon a few parties. First and foremost is our chairman, Mel Young. Mel's contacts in the industry help to set the general sessions—the CEO panels. Because of Mel's diligent work, ReFocus has attracted presidents and CEOs of major U.S. insurance and reinsurance companies. Getting an insider view into how these driven industry leaders think would be reason enough to attend the meeting. However, there is more.

The American Council of Life Insurers, one of the organizers of ReFocus, has amazing political and industry contacts. Led by Victoria Smith, the ACLI has secured the keynote speaker for the 2015 conference—John Ellis Bush. Better known as Jeb, he is currently the governor of Florida. Will he run for president of the United States of America? Attend ReFocus 2015 and ask him.

The other organizer of the event is the Society of Actuaries, led by Jay Semla. Jay's organizational skills keep us on track at our planning meetings. Without the SOA and Jay, we would have a meeting, we just might not know where or when.

This year's theme hinges around growth in the industry. Will growth come from the United States or will growth come from Europe, Asia, or Latin America? The ReFocus planning committee hopes to bring you more international sessions, such as our highly rated International Reinsurer CEO session held in 2014. Hear what your colleagues overseas think about where growth will come from at ReFocus 2015.

Finally, join us for the Insurance Legends' Golf Classic, which is a major fundraiser for The Actuarial Foundation. Participation in the Insurance Legends' Golf Classic will benefit The Actuarial Foundation's youth education initiatives. The Actuarial Foundation is a charitable organization established in 1994 to help facilitate and broaden the actuarial profession's contribution to society. Make sure to sign up fast as the golf tournament is always sold out.

Now if I can only convince the Actuarial Foundation to have a tennis tournament instead of a golf tournament, ReFocus would be perfect! ■

Actuarial Research Conference 2014 Showcases State-Of-The Art

By Tom Edwalds

The cutting edge of actuarial research was on display at the 49th Actuarial Research Conference (ARC), which was held at the University of California at Santa Barbara (UCSB) from July 13 to 16, 2014.

More than 80 current research papers were presented covering all areas of actuarial practice, including mortality, health insurance, annuities, investments, auto insurance, other property and casualty lines, catastrophe bonds, portfolio theory, capital allocation, Social Security, long-term care insurance, life insurance, mortgage insurance, and reverse mortgages. Innovative applications of actuarial analysis to agriculture, wellness programs, and the risk of storm damage to electric power lines were also presented. A broad variety of statistical models and methods were explored and used, including predictive modeling approaches, such as Generalized Linear Models (GLMs), Generalized Linear Mixed Models (GLMMs), and Generalized Additive Models for Location Scale Shape (GAMLSS).

Both Mark Freedman, president of the Society of Actuaries, and Wayne Fisher, president of the Casualty Actuarial Society, gave plenary addresses emphasizing the importance of research for the future of the actuarial profession. There were also presentations and discussions about actuarial education, diversity in the actuarial profession, and funding for actuarial research.

While the majority of presenters and attendees were from the United States or Canada, there were some papers presented by researchers from the United Kingdom, Ireland, France, Switzerland, Australia, Egypt, Africa, Taiwan, and China. Ample time was provided for networking, which promoted a robust exchange of ideas.

Most of the papers were presented in three concurrent sessions, so it was possible to attend only about one-third of the presentations given at the conference. However, all of the papers will be published in the Actuarial Research Clearing House (ARCH).

Superior understanding and modeling of the risk transferred is the cornerstone of the reinsurance transaction. The ARC provides an opportunity to gain an understanding of the current research into risk modeling techniques and their usefulness in a variety of actuarial applications. Thanks to the Reinsurance Section for supporting this conference, and thanks to the ARC committee at UCSB for organizing an outstanding conference!

For copies of archived presentations from the conference, please visit: *http://www.pstat.ucsb.edu/ARC.htm* ■

Tom Edwalds is visiting assistant professor and executive director, Arditti Center for Risk Management at DePaul University in Chicago, Ill. Tom can be reached at tedwalds@gmail.com.

Canadian Reinsurance Conference 2015

By Bernard Naumann

Bernard Naumann is senior vice president, Individual Reinsurance at Munich Re Canada Life. Bernard can be reached at bnaumann@munichre.ca

The 59th annual Canadian Reinsurance Conference will be held on Tuesday April 14, 2015, in Toronto at the Metro Toronto Convention Centre.

The Canadian Reinsurance Conference (CRC) (www.crconline.ca) is one of the longest running and largest annual life (re)insurance gatherings in the world. It typically attracts more than 500 delegates from insurance, reinsurance and retrocession companies, as well as a wide range of other key industry stakeholders including regulators, suppliers and consultants. Delegates attend from Canada, the United States and abroad to experience a unique combination of thought provoking information/education sessions and professional networking opportunities, all packaged into a dynamic one-day conference format!

Building on the fact that Toronto will be hosting the 2015 Pan Am and Parapan summer games, the CRC Theme for 2015 is "REaching for Gold." We will be challenging the speakers and the attendees on how we can "REach for Gold" in our industry, in our corporation, in our career, and in our personal life.

The conference will focus on the radically changing global and North American landscape and the actions taken within the insurance and reinsurance business. Convergence, reform, and global risks are leading to a dramatic shift in product design, underwriting and administration. The 2015 CRC will provide delegates with an opportunity to listen to how industry stakeholders are leveraging their technical, human and information resources. The goal of the conference is to ensure that every delegate is put in a position to reach for gold within their own organizations and within themselves.

Each year our volunteer council works on developing a content-rich one day conference. The objective is to ensure each and every guest benefits from a wide range of presentations, by gaining insight into present and future trends, process improvements and new opportunities, as well gaining additional tools to overcome various challenges facing our industry and ourselves.

We will have a number of exceptional industry leaders speaking at the conference and are thrilled to have Dr. Joachim Wenning, responsible for Global Life Reinsurance at Munich Re, opening the conference.

In addition to two keynote speakers, more than 30 subject matter experts will present on a variety of topics that are of concern and interest to both direct writers and reinsurers alike in our one hour workshops.

Finally, for those who have not had a chance to visit Toronto for some time, this is a great opportunity to do so. Toronto has been experiencing a major renaissance in its downtown core. It has one of the most lively (and safest) downtown cores in North America. 2015 marks the completion date of many infrastructure projects, including a stunningly rebuilt central train station (next door to the conference) with a link to the airport, brand new subways, futuristic looking street cars, and a revitalized harbor front. April is a great time for sports in Toronto as well. The Toronto Blue Jays, Toronto Maple Leafs, and Toronto Raptors will be in full swing, and all of these major league sporting venues are within a five minute walk from the conference.

On behalf of the organizing committee,

Chairman Bernard Naumann, Senior Vice President, Individual Reinsurance, Munich Re

2014 Chair Karen Cutler, Vice President & Chief Underwriter Retail and Affinity Markets, Manulife Financial

2016 Chair Francois Lemieux, Vice President, & Chief Agent, SCOR Global Life Canada

Treasurer Stephen Cooley, Chief Administrative Officer, Aurigen Reinsurance Company SecretaryDavid Moss, Senior Vice President, Swiss Reinsurance Company Ltd

Asst. Secretary John Di Federico, Vice President, Underwriting, RGA Life Reinsurance Company of Canada

Event Planner Laura Gutsch, Manager, CMG Marketing

I am looking forward to welcoming everyone to a very thought-provoking and timely conference. ■

Editor's Notes: Reinsurance News turns 30

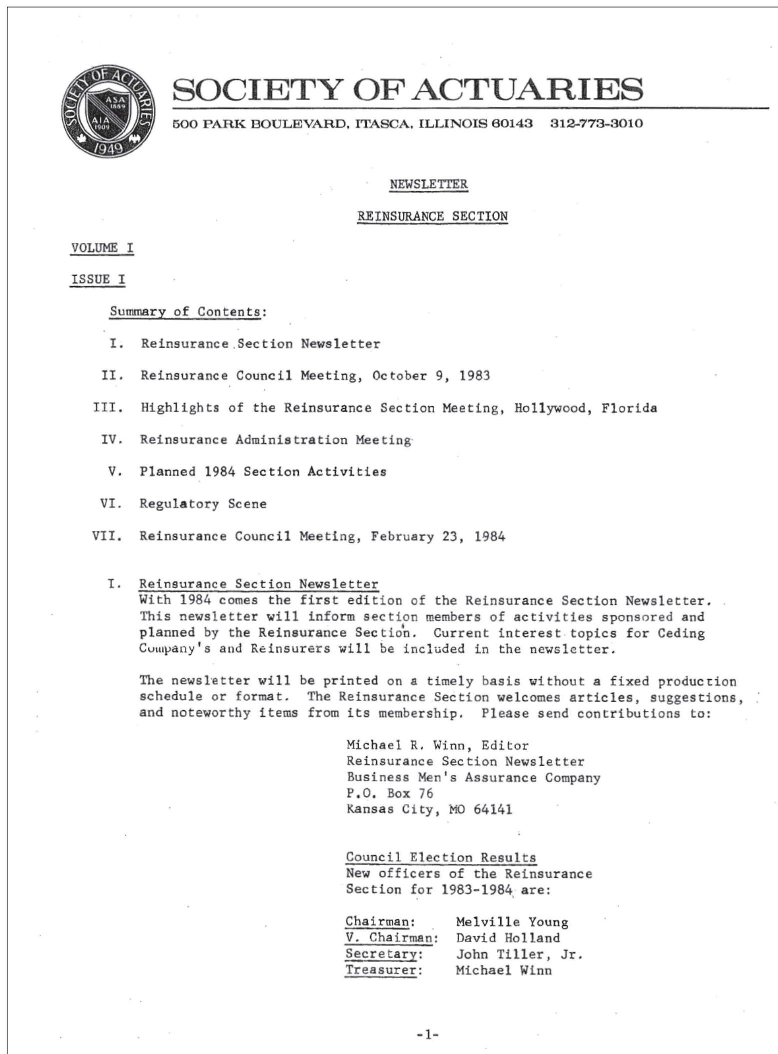
By Richard Jennings

Did you know that the Reinsurance Section newsletter has been around for 30 years this year?

"With 1984 comes the first edition of the Reinsurance Section Newsletter. This newsletter will inform section members of activities sponsored and planned by the Reinsurance Section. Current interest topics for Ceding Company's and Reinsurers will be included in the newsletter.

The newsletter will be printed on a timely basis without a fixed production schedule or format. The Reinsurance Section welcomes articles, suggestions, and noteworthy items from its membership." Signed by the newsletter's first editor, Michael R. Winn.

The four page issue includes the Reinsurance Section election results for 1983-1984: chairman—Mel Young; vice chairman—David Holland; secretary—John Tiller, Jr.; and treasurer/newsletter editor—Michael Winn.



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NEWSLETTER

REINSURANCE SECTION

VOLUME I

ISSUE I

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I. Reinsurance Section Newsletter

With 1984 comes the first edition of the Reinsurance Section Newsletter. This newsletter will inform section members of activities sponsored and planned by the Reinsurance Section. Current interest topics for Ceding Company's and Reinsurers will be included in the newsletter.

The newsletter will be printed on a timely basis without a fixed production schedule or format. The Reinsurance Section welcomes articles, suggestions, and noteworthy items from its membership. Please send contributions to:

Michael R. Winn, Editor
Reinsurance Section Newsletter
Business Men's Assurance Company
P.O. Box 76
Kansas City, MO 64141

Council Election Results

New officers of the Reinsurance Section for 1983-1984 are:

Chairman: Melville Young
V. Chairman: David Holland
Secretary: John Tiller, Jr.
Treasurer: Michael Winn

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In its 30th year, the Reinsurance Section newsletter, Reinsurance News continues to serve the members of the Reinsurance Section with articles on the activities of the Reinsurance Section and current topics of interest to ceding companies and reinsurers. If you would like to submit an article, please e-mail your articles to Richard Jennings (richardcjennings@gmail.com) or David Xia (dxia@mit.edu). Some articles may be edited or reduced in length for publication purposes. ■

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