REINSURANCE SECTION
"A KNOWLEDGE COMMUNITY FOR THE SOCIETY OF ACTUARIES"

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OLDER-AGE MARKET: BUILDING INDUSTRY KNOWLEDGE AND EXPERIENCE

by Craig Baldwin, FSA, MAAA, and Steven Zimmerman, MD

Serving the needs of the expanding older-age market is a core growth strategy for many financial service providers including life insurance companies. Changes in longevity and health have encouraged a steady development of product offerings in order to meet the needs of higher-age customers. Fixed and variable annuities, long-term care polices and policy riders, universal and variable universal life insurance and term life policies are available to address this need. However, understanding the drivers of mortality and morbidity is essential in order to properly price and manage the associated risks while accurately identifying and developing suitable business opportunities.

Life insurers are only now beginning to gain sufficient experience upon which to base their products for this important demographic segment. Conferences and seminars on the older-age market are in high demand as knowledge sharing opportunities, and are useful ways for the life insurance industry to present and disseminate expertise and experience.

Every three years the Society of Actuaries hosts the Living to 100 and Beyond symposia, where experts from around the world gather to discuss the drivers of morbidity and mortality affecting social, financial, health care and retirement systems. For the most part, the presentations at the January 2008 Symposium addressed the population at large, not the insured population, and affirmed that the industry is leveraging its understanding of the older-age market. Future Living to 100 conferences will continue to contribute to this discussion. The next symposium is planned for 2011.

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SOCIETY OF ACTUARIES

Society of Actuaries
475 N. Martingale Road, Suite 600 Schaumburg, IL 60173
ph: 847.706.3500 • f: 847.706.3599 • Web: *www.soa.org*

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This article provides a brief summary of the needs of older-age consumers that were discussed at the most recent conference and how the life insurance industry is transforming its approach to this market in response to changing conditions. In addition, it will focus on two issues that bear directly on managing and pricing policyholder risks at higher ages: the duration of underwriting/selection effects, and new medical tests and alternative underwriting methods.

A New Market: Opportunities and Challenges

With trillions of dollars in pension wealth and millions of livelihoods at stake, financial service providers are in keen competition to manage retirement savings and income needs. While life insurance and deferred annuities have always been key elements of retirement planning, today's older-age customers are not just seeking wealth and income protection. More often they are demanding living benefits, guaranteed investment returns and contract design flexibility. Plus they want access to their cash when they need it.

Part of delivering valuable product solutions to customers is having the ability to determine who is (and who will be) healthy at higher ages. This remains a challenge because until recently, healthy 80-year-olds were too uncommon to study. One reason for the lack of higher-age research data is that five years ago hardly anyone age 65 and older bought new life insurance due to age limits; they either renewed on policies already in force or they collected on them as beneficiaries. Now, the older-age population is a growth market for life and health products even as sales in younger demographics are decreasing. As evidence, according to the MIB, application activity in the American individual life insurance market in second quarter 2008 was down 2.5 percent from second quarter 2007, but ages 60 and higher showed a quarterly increase of 4.2 percent over the same period, the only positive segment reported. It is possible that STOLI or IOLI sales might explain the sales increase in this segment.

The Age Limit of Underwriting Selection

Life insurers need answers to fundamental questions about their mortality assumptions in order to develop effective product, pricing and underwriting solutions for the older-age market. However, because of the recent emergence of this market focus, companies have not been able to quickly develop the needed information and insight on

their own. Thus, industry collaboration is essential for improving our competitive position within the larger financial services sector.

Underwriters play a prominent role in developing the theory and practice of assessing insurable risks at higher ages. In one key respect, mortality at the older ages is fundamentally altered: Given the current state of the underwriting art, at or around age 90 to 96 no lasting selection effects are possible, and understanding this limit is a major aspect of pricing for the older-age market.

The duration of underwriting selection effects eventually exhibit the characteristics of a J-curve, the arc that indicates the period of accelerated morbidity and mortality at advanced ages. Initial selection is not the concern. David Wylde of Transamerica Reinsurance notes, "Even for age 80, current underwriting methods provide strong early duration selection. The item of greater interest is that the persistency of selection effects is shorter at age 80 (less than 15 years) than for age 70 (about 20 years), despite the strong initial underwriting."

These results coincide with observations made elsewhere, wherein at extreme ages, insured mortality and that of the general population begin to converge, and life insurers need to take these findings into account.

New Tests and Methods Show Promise

The development of new tests and methods for improving risk selection will prove beneficial to improving pricing and profitability in the older-age market. Much attention is being paid to medical testing as well as other areas of development, such as physical activity indicators and cognitive assessments.

Given its importance as a driver of underwriting advances, significant attention is focused on developments in medical testing; some efforts involve recalibrating acceptable results from existing labs while others involve tests that are not commonly used to assess mortality. For example, body mass indices (BMIs) are being interpreted to better account for older-age risk. While companies generally credit younger applicants for average or below average BMIs, they are beginning to debit older-age applications for similar results because low BMIs (<22) for the elderly may mask underlying complications with severe mortality implications.

Also, when underwriting the elderly, companies are reconsidering the traditional blood panel and are turning to tests that are considered more specific to older ages. For example, rather than using total cholesterol, which is used to determine the increased risk of developing atherosclerotic disease of the heart and other arteries, tests such as NT-proBNP and hemoglobin A1c may tell much about the risk of an older-age applicant who is more likely to have already developed the disease. These tests have been shown to be associated with increased mortality due to heart failure (NT-proBNP) and to complications of diabetes mellitus (hemoglobin A1c). In this changing environment, underwriters may not always know how to interpret test results at higher ages. Increasingly, reinsurers are being asked to provide underwriting guidance, especially as direct writers typically cannot bind reinsurers for over-age-75 policies.

Interest is increasing in the use of physical activity tests such as seniors' activities of daily living (ADLs) and cognitive testing for the detection of dementia or Alzheimer's disease. Cognitive testing has been shown to be especially useful for underwriting at very advanced ages. Recent findings show that mortality cost improvements from the use of the Delayed Word Recall test ranged from 14 percent for ages 70-74 up to 43 percent for ages 90-plus on a study group of 14,631 long-term care applicants.[1] This increase in effectiveness is roughly comparable to the increase in persons with chronic conditions

[1] Ashley, Thomas. MD, FACP, VP and Chief Medical Director, Gen Re Life Health. "Cognitive Tests for Elderly Underwriting: Which One to Use?" presented at Living to 100 Symposium, Orlando, FL, on Jan. 8, 2008.

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Craig Baldwin, FSA MAAA is vice president, Traditional Markets, Transamerica Reinsurance. He can be contacted at craig.baldwin@transamerica.com

and impairments of the senses (e.g., hearing, vision, etc.), from about 50 percent at ages 65-74 to about 90 percent at ages 85 and older.[2] Still, challenges exist for using cognitive testing as an additional, let alone replacement tool, for mortality underwriting. Chief among these challenges is consistency in administration, interpretation and application to risk assessment.

Ideally, a carrier will have in place a well-vetted integrated underwriting approach that incorporates the best of these recent medical, physical and cognitive testing improvements. One company's study of long-term care patients showed that changing some underwriting parameters reduced its claim rates in the first six years slightly through age 94, but greatly (from about 53 claims per 1,000 exposure months to 22 claims) for ages 95 and up.[3] Some of the changes included accepting greater levels of cardiac/pulmonary morbidity, refocusing on stroke risks, improving cognitive screens and redoubling efforts to identify frailty/functional decline. It will be interesting to see if other companies can achieve similar results in life insurance underwriting.

Final Thoughts

Addressing the challenges of reaching and insuring higher-age customers will be decided by how quickly the industry develops credible experience that can be translated into actionable pricing and risk management assumptions. This very likely will require collaboration within the industry.

There may be some resistance to sharing knowledge, however there are many aspects of older-age underwriting and pricing for which we do not have all of the answers and for which common efforts could yield benefits for all. It is imperative that the industry's pricing actuaries, underwriters and medical directors better understand the drivers of their mortality and morbidity assumptions in order to properly assess and price these risks.

Future Living to 100 symposia research could possibly address how incremental mortality improvements develop due to changes in medical care, lifestyles or environment. Similarly, a rigorous comparative assessment of how new medical tests and methods—including adjustments to traditional examinations—would be valuable to the industry.

The Living to 100 Symposium provides life insurers valuable insight to the most recent developments in older-age markets. The Society of Actuaries also has a number of groups and committees that regularly address this topic. ✺

Craig Baldwin served as moderator for the session "Distinguishing Health Status For Advanced Ages" at the Society of Actuaries 2008 Living to 100: Survival to Advanced Ages International Symposium. For more detail on this panel, and additional papers/panel discussions on the needs of older-age consumers, please see www.soa.org/livingto100monographs

Steven Zimmerman, MD, is vice president and chief medical director, Transamerica Reinsurance. He can be contacted at steven.zimmerman@transamerica.com

[2] "Prevalence of Selected Conditions by Age and Sex: United States, 1984-1995." from the National Center for Health Statistics, 1995. http://209.217.72.34/aging/ReportFolders/ReportFolders.aspx

[3] Holland, Stephen K., MD. Senior Vice President and Medical Director, Long Term Care Group, Inc. "Long Term Care Insurance Underwriting Challenges at Older Ages," presented at the Living-to-100 Symposium, Orlando, FL, on Jan. 8, 2008.

THE U.K. LIFE REINSURANCE MARKET—CHALLENGING TIMES AHEAD

By Peter Mannion, FIA

The Life reinsurance market in the United Kingdom is currently in an interesting example of the laws of economics. The supply side is currently high, and the demand side should be low due to the decreasing U.K. Protection sales (most notably for Critical Insurance (CI) business) and the removal of most of the opportunities for regulatory arbitrage. This should dictate that volumes contract, prices reduce and then volumes reinsured increase again.

Yet the demand side never really did contract and volumes of business reinsured have held up well, though assessing exact volumes is difficult with so much business flowing to offshore balance sheets. One theory is that this is predominantly due to the reinsurers anticipating the next position in the cycle and looking to offer ultra-competitiveness to build market share.

This article explores the current market dynamics in the U.K. life reinsurance market and considers the sustainability of the current position.

Market Dynamics—Reinsurers and Insurers

In the United Kingdom there are currently nine active reinsurers: Swiss Re, Munich Re, SCOR, Hannover Re, RGA Re, Gen Re, XL Re, Pacific Life Re (the new owner of Scottish Re U.K.) and Partner Re. All of these companies, bar Partner Re, have a base in London or the surrounds.

However, the number of direct offices writing protection business is decreasing. Standard Life has stopped writing protection, Scottish Widows has pulled out of the broker market (where most business is written) and Scottish Provident now has the same parent as Bright Grey in Royal London, so these businesses may merge. In addition, there is a question mark about Friends Provident's long-term survival. The only positive is the recent arrival of Fortis in the United Kingdom. The direct market is dominated by Legal & General and, to a lesser extent, Aviva who have a combined market share of around 40 percent. Adding in the next five biggest companies brings the market share to around 75 percent.

Volumes of business, measured by policies written, are currently in decline. This is largely linked to the slow mortgage market following the credit crunch. However, vanilla Term Assurance sales reduced last year, CI sales are only around one-half of their level from five years ago and Income Protection (IP) sales always disappoint and are also down 50 percent from their 2003 level. Details are shown below:

Year	Term Sales ('000)	CI Sales ('000)	IP Sales ('000)
2003	1239	897	216
2004	1119	648	162
2005	1024	560	147
2006	1123	520	130
2007	1059	482	118

Source: Swiss Re Term & Healthwatch 2008

The U.K. Life Reinsurance Market Structure

Unlike most of Europe which still sees life reinsurance mainly on a surplus basis, the U.K. market operates with very high quota shares; most commonly on what is generally termed a "Modified net level" basis. Here the ceding office would pay an agreed level schedule of reinsurance premiums on each policy, but the level would not be directly linked to the underlying office premium charged to the customer. In addition, there would usually be a period at the start of the contract (often four years, to tie in with direct office commission earning periods) during which a reduced proportion, usually 50 percent, of the full net premium is paid.

The rationale behind this was originally based on direct offices wanting structures that helped alleviate new business strain and reinsurance capital generally requiring a lower rate of return than direct writers.

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The high quota shares also triggered regulatory arbitrage. This included:

- Gross roll up of reserves.
- The ability to allow for lapses in pricing (via offshore reinsurance).
- Scope for negative reserves on an individual policy level.
- Much lower statutory solvency margins.

However, following legislative changes introduced at the end of 2006, direct writers are now allowed to allow for a prudent level of lapses in valuing their in-force books and can treat individual policies as assets provided the overall reserve is not negative. In addition, long-term interest rates have generally fallen making gross roll up less important and the reduced statutory solvency margins will not be a factor post the impending EU Solvency II changes which will come into force around 2013.

Since the changes there has been some move to risk premium rather than "modified net level," especially amongst offices using a European Embedded Value basis where direct margins are added to basis items, but a low return on capital then assumed.

Justification

With the recent changes, some commentators expected much higher retentions, and even a move back to traditional surplus-based reinsurance used to stabilize experience and offload jumbo risks. This has not happened in practice, and Redmayne Consulting explored further at their annual Direct Writers Focus Group in April 2008 (held as a prelude to the Annual Redmayne Report on Reassurance). Reasons given include:

- Ultra competitive reinsurance rates.
- Reinsurers used for underwriting manuals and systems.
- Reinsurers used for technical support and access to medical experts.
- Statutory Solvency Margin & Capital reductions.
- Insurers have limited risk appetite and see themselves more as distributors.
- Reinsurer volumes enabling more aggressive valuation assumptions.
- Life business ceded ensures total volumes adequate to get good CI terms.

As a result of the above, it looks like U.K. reinsurers can still expect the heavy quota shares to persist over the next few years, though the equilibrium is quite fragile and could easily be broken by any attempts to push rates upwards.

Differences by Business Line

If mortality business does not deliver the same volumes of reinsurance, especially in the Post Solvency II regime, then from where else will the U.K. reinsurers pick up their business? Redmayne Consulting's 2007 reinsurer survey asked reinsurers to rate different lines of business in terms of attractiveness. The results are detailed below: (H=High, M=Medium, L=Low)

Attractiveness of business lines					
	Death	CI	IP	Annuity	In-force
Hannover Re	H	H	M	H	H
Munich Re	H	H	H	L	H
Partner Re	H	M	L	L	H
SCOR	H	H	M	L	H
RGA Re	H	M	L	H	H
Pacific Life Re	H	H	H	H	H
Swiss Re	H	H	H	H	H
XL Re	H	L	L	M	H

As can be seen by the detailed results, all companies find mortality business attractive and CI business is attractive to most. IP is mixed in attractiveness and Annuity business is generally love it or loath it (though XL, who made their name in the United Kingdom through annuity deals are now only lukewarm!). What is perhaps interesting is the high regard in-force business is held in, by all companies surveyed.

This is a relatively new area in the U.K. market, and one for which Swiss Re has the biggest name, having set up a company Admin Re solely to manage such business and having picked up some large volumes through it. Swiss Re seems eager to grow this area and in combination with Standard Life was outbid only by Pearl in the recent $10 billion hostile takeover of Resolution. Munich Re is also currently thought to be very active in this area.

Reinsurance Placement

The above is considered the typical reinsurance structures and the rationale for reinsurance. The final piece of the jigsaw is how the life offices determine which reinsurer(s) to work with.

Factors in Buying Reinsurance

The most important reason is the competitiveness of rates. Most large mortality reinsurance tenders are won primarily on price and usually at a discount to past experience, even though the business is often re-tendered annually. This is usually justified by some combination of expected future mortality improvements—faith (leaps of!) in future underwriting and claims processes and commercial decisions.

Cynics would say it's similar to the old adage about real estate, only with reinsurance it is "price, price and price." It is often hard to argue with this, especially for life-only mortality business where the degree of product and technical support required from reinsurers is very modest.

Cedants should attempt to quantify the non-price elements before making reinsurance business placements. These include the value placed on the financial strength, claims and underwriting approaches, and the quality and breadth of services from alternative reinsurers. These values naturally vary from office to office, but the overall difference in value will rarely exceed 1-2 percent on the price for the top six reinsurers. For other lines of business, the value of strength and services can sometimes overcome price differentials of around 5 percent.

There are also some hygiene factors that reinsurers generally must overcome to be able to win business. These include: financial strength ratings and nowadays a partnership approach to claims and premium reviews.

In recent years in the United Kingdom, there has been increasing emphasis on Treating Customers Fairly (TCF) both in terms of reviewing rates on reviewable contracts and on appropriate practices regarding claims handling. In the early 2000s many reinsurers had toughened their stance in both these areas, admittedly against a backdrop of poor practices amongst many cedants. This had left direct writers in an unenviable position where they either paid claims and could make no reinsurance recovery, or avoided the claim and faced Ombudsman/Court action and subsequent bad publicity. Accordingly, cedants now place much more emphasis on agreeing practices and recourse in advance with reinsurers.

The Impact on Reinsurers of the Current and Future Regulatory Landscapes

There are two legislative changes that impact U.K. reinsurers: the Reinsurance Directive which came into effect at the end of 2007 and Solvency II which is now expected to be effective in European law by 2013, though individual EC member states may decide to implement in advance of this date.

Reinsurance Directive

The reinsurance directive is an interim measure that introduces a minimum level of harmonized prudential supervision of reinsurance across the EU, in advance of Solvency II. It abolished restrictions on freedom of establishment across the EU and introduced Home Country control and supervision and a Single Passport to transact across Europe. This has influenced Munich Re in deciding to be regulated only by BaFin, the German regulator for its U.K.

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Peter Mannion, FIA, is Actuary, Redmayne Consulting. He can be reached at *p.mannion@redmayneconsulting.co.uk*.

business and Swiss Re in its plans to move its U.K. life and health business to a new base in Luxembourg (along with all of its EU business).

The aforementioned formalized U.K. reinsurers' ability to circumvent the U.K. Financial Services Authority (FSA) reserving requirements (including Statutory Solvency Margins), but, in reality this already happened, often via co-reinsurance treaties with other parts of the same group. In any event, the relaxations of the FSA referred to earlier, render the move outside FSA jurisdiction of less relevance.

Following the directive, life reinsurers have the option of calculating the Statutory Solvency Margins on the nonlife basis of specified multiples of premiums or claims (net of retrocession) rather than using the traditional life reinsurer formulae based on net sum at risk and reserves. However, in reality this makes relatively little difference in determining profitability and hence available terms.

Solvency II

Solvency II sets minimum solvency standards for all EU insurers and reinsurers (except for small firms, the definition of which has not yet been made). It is based on a three pillar approach. The first contains quantitative requirements, the Solvency Capital Requirement (SCR) and the Minimum Capital Requirement (MCR) which represent differing levels of supervisory intervention. Breaching the MCR triggers withdrawal of authorization, whereas breach of the SCR requires an agreed action plan with the regulator to restore parity. The SCR can be calculated on either a prescribed or an Internal Approved model, akin to the Individual Capital Assessments currently used in the United Kingdom by companies as part of FSA requirements.

The second pillar contains qualitative requirements on risk management and supervision and the third more public disclosure, to bring greater market discipline and transparency. All of this should improve stability of insurers and reinsurers.

It is a moot point whether the advent of Solvency II will improve the outlook for U.K. reinsurers or not. There will certainly be even more focus on risk from direct writers, and it is certainly arguable that the benefits of global diversification will enable the large reinsurers to write risk business most effectively. However, it is also possible that the greater focus on economic reality will, over time, lead the largest insurers to question the value add from large quota shares.

It would be necessary to consider whether the same benefits of greater size and diversification large reinsurers enjoy could be available internally. If this is not immediately the case then maybe it could be via mergers and takeovers, and perhaps via more exotic tools such as inter-continental mortality and morbidity swaps, or swaps between assurance and longevity risk.

Conclusion

The U.K. life reinsurance market is ultra competitive, with at least eight serious players chasing the business of only 10-15 volume writers. The results are that mortality business is typically won by aggressive quotes assuming significant improvements on past experience and other lines requiring both low rates and high levels of added-value services. As a result of the above, business is frequently retendered by the leading direct writers and moves often between reinsurers, as well as being split on ways to suit the direct writer. The sustainability of this model, with its inherent inefficiencies is questionable and many reinsurers are looking at other routes to producing profitable business, such as in-force blocks, wider financing and diversification into new product lines.

The changes to the regulatory environment could actually increase the demand for reinsurance, at least in the short term, but only if the same market characteristics and dynamics persist. If the supply side were to reduce and prices were pushed upwards by reinsurers, price elasticity could be high and direct writers may well look to alternative routes of securing the benefits reinsurance currently provides.

There are tough times ahead for U.K. life reinsurers, but they have faced these before and come through strongly and the inherent risk aversion amongst U.K. insurers could see reinsurers continue to prosper. ✹

OUTGOING CHAIRPERSON'S COLUMN

By Gaetano Geretto, FSA, FCIA

Well, it's amazing how quickly one year goes by! It seems like yesterday that I was writing my first chairperson's column for our section and now I am writing my last.

We have had an extremely productive year on our Council over the last 12 months.

From our last newsletter, you'll recall the developments in our section's research team headed by JJ Carroll of Swiss Re *(JJ_Carroll@swissre.com)*. The multiple decrement project team using stochastic modeling completed its work and the research team pursued three other research projects, specifically a literature review on longevity and two projects that addressed reinsurance implications of PBA. As part of such, the outcome of the literature review was presented at our recent Section Breakfast on October 20th in Orlando by Rich De Haan and Tom Crawford of E&Y. We were very fortunate that JJ Carroll and her team pursued a variety of interesting research projects this year.

As well, in Orlando at the Annual Meeting, we had excellent sessions from "Future Threats to Mortality Improvement" to "Tools to Help Me with My Treaty" to "Jumbo Troubles and Remedies." Many thanks again to our presenters and moderators for their time and efforts. Special thanks to our Annual Meeting Coordinator, Steve Habegger of Swiss Re *(Steven_Habegger@swissre.com)*, for doing a super job!

The Treaty Project continued to make progress under the stewardship of David Addison of RGA *(daddison@rgare.com)*. The Treaty team and its subteams continue to address issues of concern to our membership. Members of this team are also doing a peer review of the updated American Council of Life Insurers' (ACLI) Treaty Sourcebook.

Planning is underway for all our activities in Continuing Education in 2009. Should you wish to be involved in a panel or a continuing education initiative, please contact Tim Ruark of Ruark Advisors at *tim@ruarkonline.com*.

Our series of webcasts grew in 2008 under the stewardship of David Rains of Guy Carpenter *(David.A.Rains@guycarp.com)*. We presented the stochastic modeling on mortality in late July and are doing the impact of pandemics in November. Should you wish to get involved in these webcasts, please contact David directly. Otherwise, stay on the lookout for news about the timing of our upcoming webcasts in 2009.

Our Communications and Publications group developed three lengthy newsletters in 2008. Be on the lookout for a special issue of Reinsurance News in the New Year with a special surprise feature! If you would like to contribute an article for 2009, please feel free to contact Richard Jennings, our Newsletter Editor, at *Richard_Jennings@manulife.com*.

Our Marketing and Membership Value initiatives under Michael Frank's direction allowed us to reach out to more non-actuaries who are interested in becoming section members. Should you know of a constituency who could benefit from being a member of the section, please do not hesitate to contact Michael at *Michael.Frank@AquariusCapital.com.*

Our elections to succeed members of Council took place this summer and we are pleased to have Ed Hui, Len Mangini, and Larry Stern join our Council. They will be filling the big shoes left behind by our three outgoing Council members: JJ Carroll (Research), Bob Diefenbacher (Communications & Publications), and Graham Mackay (Past Chair). JJ, Bob, and Graham have agreed to stay on as Friends of Council. Many thanks for your significant efforts and accomplishments during your three years on Council. You made our jobs that much easier!

I also want to thank everyone on Council and all of our Friends of Council for making the time and committing themselves to all our various initiatives this year. In addition, I'd like to thank Mike Boot (SOA Staff Partner), Christy Cook (SOA Project Staff Specialist), and Jim Glickman (SOA Board Partner). Without their support and guidance,

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Gaetano Geretto, FSA, FCIA, is President with Pelecanus Strategic Advisory Services, Inc. in Toronto, Canada. He can be reached at gaetano.geretto@pelecanusadvisory.com.

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we would not have achieved so many noteworthy achievements this year.

Finally, I leave the leadership of our Council in excellent hands as Mary Ellen Luning of Swiss Re *(MaryEllen_Luning@swissre.com)* succeeds me as the Chair, ably supported by her successor as Vice Chair, Ronnie Klein of AIG *(Ronald.Klein@aig.com)*.

If you have any questions about our Section's activities or want to volunteer to serve as a Friend of Council, please don't hesitate to contact any of the named individuals above directly or contact me at *gaetano.geretto@pelecanusadvisory.com*.

Until then, have a great rest of the year and all the best for 2009! ✹

Gaetano Geretto

INCOMING CHAIRPERSON'S CORNER

by Mary Ellen Luning, FSA, MAAA

Mary Ellen Luning, FSA, MAAA, is vice president, Corporate Actuarial, Swiss Re. She can be contacted at maryellen_luning@swissre.com.

First let me thank Gaetano Geretto for his leadership this year, and Graham Mackay the year before. Their leadership generated significant momentum (and made my first two years on council a great experience). Fortunately we will continue to benefit from their insight as immediate past chair and Friends of Council.

I think they would agree that much of our success has been driven by a strong group of subcommittee chairs, and especially the Friends of Council that support them. The benefits of this section are generated by teams that go far beyond the section council. There are more than 50 people that have very actively participated in our activities this year, and that list keeps growing. They serve as program coordinators, ensuring reinsurance is effectively covered at industry meetings. They provide insight and valuable experience to our research projects. They make this publication possible through planning, writing and editorial review. The list goes on and I do not want to risk missing anyone by naming names. The membership of the reinsurance section thanks them very much!

As we move forward into 2009, we welcome three new members to the RSC: Ed Hui (Gen Re Life & Health), Larry Stern (Canterbury Consulting LLC), and Len Mangini (ACE Tempest Re). Ed will be leading our research efforts this year; Larry will be leading our Basic Education team; and Len will lead our Communications & Publications team. We welcome their energy and look forward to working with them.

We expect to continue to focus on our primary objectives—Education and Research. A few highlights:

- The research team is finishing up current projects on longevity risk, and moving forward on other projects, such as principle-based reserving, as well as reinsurance capacity and concentration risk. (As always, if you have another suggestion for a research topic, send them to me or any other member of the RSC!)

- We continue to provide informative and effective sessions at industry meetings, but also hope to make those sessions available more frequently and to more people through additional webcasts.

- We have launched a new initiative this year—Life Education and Reinsurance Navigation (LEARN). We are creating a syllabus and a team of professionals that will provide basic education on reinsurance and financial reporting for reinsurance to the industry. The education will be tailored to the audience—ranging from basic education to more advanced topics. The leader of this effort is Jeff Katz (JKatz@MARCLife.com)—another generous volunteer!

- The RSC has had a sneak peek at the preliminary program for ReFocus 2009, and we are all looking forward to another great symposium in March!

There are many other activities going on this year and we look forward to working with all of you in 2009!! ✺

CREDIBILITY CONCEPTS APPLIED TO REINSURER-CEDANT MORTALITY ANALYSIS

by Clark F. Himmelberger, FSA, MAAA

Life insurers are changing underwriting classifications and underwriting requirements more and more frequently and a big challenge for companies and reinsurers alike is to correctly analyze small blocks of business with limited durational experience where credibility issues come into play.

The American Academy of Actuaries (the Academy) recently came out with a Credibility Practice Note that highlighted reinsurer-cedant related claims analysis. They laid out the theory and practical applications of credibility theory as it relates to life insurance and how credibility theory can help to analyze historical claims experience.

In my experience with mortality studies, there is often more variance in the mortality study calculations than there is in the claims underlying the mortality study. Most companies can achieve greater credibility with their mortality study results by supplementing their mortality study with an enthusiastic review of the company's operational efficiencies and a thorough review of their mortality study black box calculations.

A Framework for Working With Non-Credible Mortality Study Results

Reinsurers often use a combination of company assessments, underwriting class requirement assessments and industry mortality experience to assist them in forming an expectation of future mortality for a particular company. Although the best source of information for a company's future mortality is a company's credible mortality study, reinsurers are accustomed to adjusting industry mortality experience to fit a company's particular market niche based on years of experience monitoring mortality from a broad variety of direct insurance companies.

Reinsurers need to accurately assess mortality. Always take their quote and mortality assessment of the prospective client as helpful advice as to how its mortality experience looks relative to other companies with the basic market, underwriting philosophy and underwriting classifications.

The most effective way to reach a consensus mortality assumption between reinsurer and cedant is to accept

that mortality study results are only part of the equation and focus on marketing to the reinsurer's mortality assessment methodology. This will provide the reinsurer with the comfort that you understand your mortality experience and that you have adjusted your practices in order to increase the certainty of achieving your expected mortality results.

Ten Reasons Your Mortality IS Better Than Expected

Things to consider when sharing non-credible mortality experience with a reinsurer:

1. Show copies of claims registers. Show that the number of deaths in the study match the number of deaths in the company's accounting journals.
2. Compare mortality study in-force with annual statement line-of-business in-force.
3. Document the number of business decisions moving lives into preferred classes. If the number is low or zero, flaunt those results. If you don't make business decisions and don't document that fact, how does a reinsurer know?
4. Share mortality study results on other blocks of business. Show that other blocks of business are also exceeding expectations.
5. Analyze trends in policy size and policyholder affluence. If a higher percentage of your insureds are undergoing more stringent underwriting due to higher policy sizes, document the trends.
6. Audit the mortality study calculations. Show that you are not accepting good fortune without making sure it's real.
7. Provide a summary document that describes how substandard lives, group conversions, special underwriting programs, contested claims, rescissions and other items are handled in the mortality study.
8. Provide a summary document that describes the known inconsistencies or known flaws of the mortality study and provide brief analyses estimating their impact on mortality study results.
9. Document recent changes to underwriting, claims and sales procedures. Estimate the theoretical impact on claims levels and compare the emerging experience with the historic experience.
10. Believe in the mortality results. Nothing says you believe more than adjusting your own mortality expectations based on your mortality study results. If you don't believe the results indicate a real trend, why should a reinsurer?

Ten Reasons Your Mortality Is NOT as Good as You Think

Mortality study calculations are prone to being a black box; their inner workings understood by the very few. The following are fond recollections of circumstances that distorted the results of mortality studies and are a good reminder that mortality study results should ALWAYS be checked for reasonableness:

1. Programming errors in the mortality study calculations.
2. Administrative status code interpretations that don't match reality.
3. Incorrectly attributing table extras and flat extras in the expected mortality.
4. Replacement programs that automatically upgrade eligible insureds to new and better underwriting classes within 18 months of underwriting while retaining the original issue date. Dead people are not upgraded and are left in the original underwriting class and hence the programs contribute to understated mortality for the new underwriting class (and overstated mortality for the old class).
5. Super-Select lives. The slope in early durations, especially at older ages, may not match the underlying mortality table due to more effective underwriting tools in use today. Early duration mortality multiples may not equal later duration mortality multiples.
6. Reverse and re-computes and other manual overrides are the bane of actuaries everywhere. History is overridden and rewritten with retroactive adjustments to face amounts, underwriting classes and plan codes.

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Credibility Concepts Applied … from page 13

Clark F. Himmelberger, FSA, MAAA, is consulting actuary with Milliman Inc., in Tampa, FL. He can be reached at *clark.himmelberger@milliman.com.*

7. Misused or incorrect date fields. It is not easy to keep track of Issue Dates, Application Dates, Effective Dates, Paid Dates, Paid-to Dates, and System Entry Dates.
8. Inclusion of underwriting classifications, policies or policy forms that do not belong in the mortality study.
9. Hard-coded dates in the mortality study programming that are not correctly updated.
10. Typographical errors transferring mortality study results to mortality study summary documents.

Figure Out Your Own Credibility

There is only a 38 percent chance that actual mortality is within plus or minus 5 percent of mortality study results with 100 observed claims. The Academy Credibility Practice Note makes reference to the fact that to be 90 percent sure of being within 3 percent of the actual mortality, you need 3,000 claims.

This highlights the fact that almost all company mortality studies are not fully-credible and reinsurers basing a mortality assumption on mortality studies with more variability than the underlying reinsured product profitability margin are undertaking a scary task for any pricing actuary.

As mentioned earlier, general statistical fluctuation is a very convincing internal argument for not embracing a more aggressive mortality assumption based on non-credible data. (Unless you're in sales, of course.) And many times the most valuable tool in assessing the credibility of a particular mortality study is not some mathematical formulaic measurement, but a qualitative management report evaluating the mortality study results.

Find out the Results

Reinsurers want to accurately assess mortality. Always take their quote and mortality assessment as helpful advice as to how your mortality experience looks relative to other companies out there with your basic market, underwriting philosophy and underwriting classifications.

It is important when sharing mortality information with reinsurers to understand how your mortality assumption and mortality experience line up with reinsurer expectation.

It is not an efficient use of time to rely on mortality study results to debate a 10 percent differential in mortality estimate between ceding company and reinsurer when the mortality study supporting the ceding company point of view has a 30 percent mortality estimate range and the reinsurer is entrenched in its mortality estimation mechanism based on hundreds of individual company assessments and billions of life insurance in-force data. Always keep in mind that the reinsurer's mortality estimates are based on more data than your mortality study results.

What is an efficient use of time is recognizing when mortality experience is running outside of expectations and addressing the natural human risk-adverse behavior of assigning a lower reliance on data when non-credible results are better than expected and a higher reliance on data when non-credible results are worse. ✹

2008 EMPLOYER STOP LOSS SURVEY
IDENTIFIES TPA CRITERIA FOR ESL PARTNERS

By Claudia Scott and Stephen Fedele

In April, 2008, Munich Re America HealthCare sponsored an online survey of Third Party Administrators in the ESL sector. The survey explored their general business concerns and ESL purchase behavior. The research was conducted by the Willenbecher Research Group.

The research methodology included both qualitative, in-depth interviews, and a quantitative research phase. The online survey was preceded by in-depth interviews with over 30 professionals from the industry. These interviews provided insight, direction and shapegd the detailed specifications for the online survey. This step contributed to the relevance and accuracy of the questions included in the online survey.

Over 100 TPA executives participated in the survey, answering questions about key issues facing their industry, threats, areas of growth potential, and what criteria they value most in an ESL partner. These executives came from TPAs administering benefits for employer groups ranging in size as small as 50 lives, to several with over 10,000 lives. Some TPAs had as few as 15 clients, while others had over 500 separate clients. This design allowed for a truly diverse and representative sampling of the industry.

Key Issues

Of the 102 senior TPA executives surveyed, 74 percent indicated that "retaining business" is the most important issue currently facing them. "Finding opportunities for growth" was mentioned by 70 percent, while 52 percent of the executives sited "managing expenses" and "competition from the BUCAs" as also extremely important to them. Interestingly, only 35 percent mentioned the potential impact of the 2008 presidential election as a major concern.

When asked about what new directions they will take in the future, 32 percent expect to enter into new distribution channels; 29 percent plan on entering new product lines; only 5 percent see themselves remaining "as is."

Reporting on their own operations, 84 percent view their "customer service" as a competitive advantage, while 74 percent believe the expertise and skills of their staff are positive differentiators for them. Only 26 percent believe their underwriting and risk selection processes stand them above the crowd.

Sources of Growth

Where do they expect new sales will come from? A full 50 percent believe new business will come from other TPAs, while 37 percent think new growth will come from converting fully insured plans to self-insuring status. Only 11 percent think that ASO carriers will be a major source for new sales, and just 3 percent think that start-ups or previously uninsured employers will be their major source for new sales.

ONLY 26 PERCENT BELIEVE THEIR UNDERWRITING AND RISK SELECTION PROCESSES STAND THEM ABOVE THE CROWD.

New products under consideration are "small groups" of under 100 lives—26 percent are strongly considering this new offering, while 17 percent are already in this line. HSAs and HRAs are being considered by 24 percent of the respondents, and 28 percent are already offering these products. Twenty-two percent are thinking about a formal Disease Management line, compared to the 17 percent who already have this.

When probed about the overall outlook for their firms for 2008 vs. 2007, 75 percent believe they will do better or significantly better than the prior year. Only 8 percent think that this year will not be as profitable as last year.

Concerning the Employer Stop Loss market in particular, 61 percent felt that access to ESL at competitive prices was very important to their business; 55 percent felt that having the actual coverage mirror the Plan Documents was vital; and 47 percent told us that Lasering at Renewal was of major importance.

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Top Five Criteria When Selecting ESL Partners

During the qualitative interviews, the executives mentioned 12 distinct criteria that they used to evaluate Carriers and MGUs as potential ESL partners. In order to determine the relative importance of all of these, the online survey asked the respondents to rank each criteria on a scale of 1 to 10, where a ranking of 1 means that criteria is Not Important and a ranking of 10 means it is Extremely Important.

Based on the overall scores, the five most important criteria in the selection of an ESL partner are:

- Rates and competitiveness of prices.
- Pays claims quickly and accurately.
- Has an experienced and knowledgeable staff.
- Financial rating of the carrier.
- Strength of relationships—Access to decision makers.

The full results of this survey will be available in the fourth quarter of 2008 on the Munich Re America HealthCare Web site: *www.mrahc.com*

TPA Top Five Criteria for ESL Partners

- Rates and competitiveness of pricing.
- Pays claims quickly and accurately.
- Experienced and knowledgeable staff.
- Financial rating.
- Strength of relationships—Access to decision makers. ✺

2008 EMPLOYER STOP LOSS SURVEY
IDENTIFIES BROKER CRITERIA FOR ESL PARTNERS

By Claudia Scott and Stephen Fedele

In April, 2008, Munich Re America HealthCare sponsored an online survey of Brokers and Intermediaries in the ESL sector. The survey explored their general business concerns and ESL acquisition behavior. The research was conducted by the Willenbecher Research Group.

The research methodology included both qualitative, in-depth interviews, and a quantitative research phase. The online survey was preceded by in-depth interviews with over 30 professionals from the industry. These interviews provided insight, direction and shaped the detailed specifications for the survey. This step contributed to the relevance and accuracy of the questions included in the online survey.

Over 60 brokers participated in the survey, answering questions about key issues facing their industry, threats, areas of growth potential, and what criteria they value most in recommending an ESL partner to their self-funded employer clients. These brokers represented employer groups ranging in size as small as 50 lives, to several with over 10,000 lives. Some participating brokers represented as few as three clients, while others represented over 100 individual clients. They placed ESL coverage with annual premiums ranging from $25,000 to over $50,000,000. This design allowed for a truly diverse and representative sampling of the industry.

Key Issues

Of the brokers surveyed, 48 percent indicated that "finding opportunities for growth" is the most important issue currently facing them. "Healthcare cost inflation" was mentioned by 46 percent, while 44 percent of the executives sited "retaining business" as also extremely important to them. Interestingly, only 34 percent mentioned the potential impact of the 2008 presidential election as a major concern.

When asked about what new directions they will take in the future, 41 percent expect growth to come from "Section 125 Plans," while 36 percent think it will come from "HSAs and HRAs."

When it comes to recommending Health Benefits Administration, the brokers chose TPAs over Carriers by 43 percent to 27 percent (with 30 percent having no preference). And as far as accessing ESL coverage for their clients, the brokers generally had no preference when choosing between Carriers and MGUs (57 percent), while those with a preference preferred Carriers to the MGUs 28 percent to 15 percent.

Outlook for the Future

When probed about the overall outlook for their firms for 2008 vs. 2007, 42 percent believe they will do better or significantly better than the prior year. Only 4 percent think that this year will not be as profitable as last year, and 55 percent think that they will remain about the same.

Concerning the Employer Stop Loss market in particular, 51 percent felt that access to ESL at competitive prices was very important to their business; 50 percent felt that having the actual coverage mirror the Plan Documents was vital; and 37 percent told us that Lasering at Renewal was of major importance.

During the qualitative interviews, the executives mentioned 12 distinct criteria that they used to evaluate Carriers and MGUs as potential ESL partners. In order to determine the relative importance of all of these, the online survey asked the respondents to rank each criteria on a scale of 1 to 10, where a ranking of 1 means that criteria is Not Important and a ranking of 10 means it is Extremely Important.

Top Five Criteria When Selecting ESL Partners

Based on the overall scores, the five most important criteria in the selection of an ESL partner are:

- Pays Claims Quickly and Accurately.
- Rates and competitiveness of prices.
- Has an experienced and knowledgeable staff.
- Financial rating of the carrier.
- Consistent yet flexible underwriting.

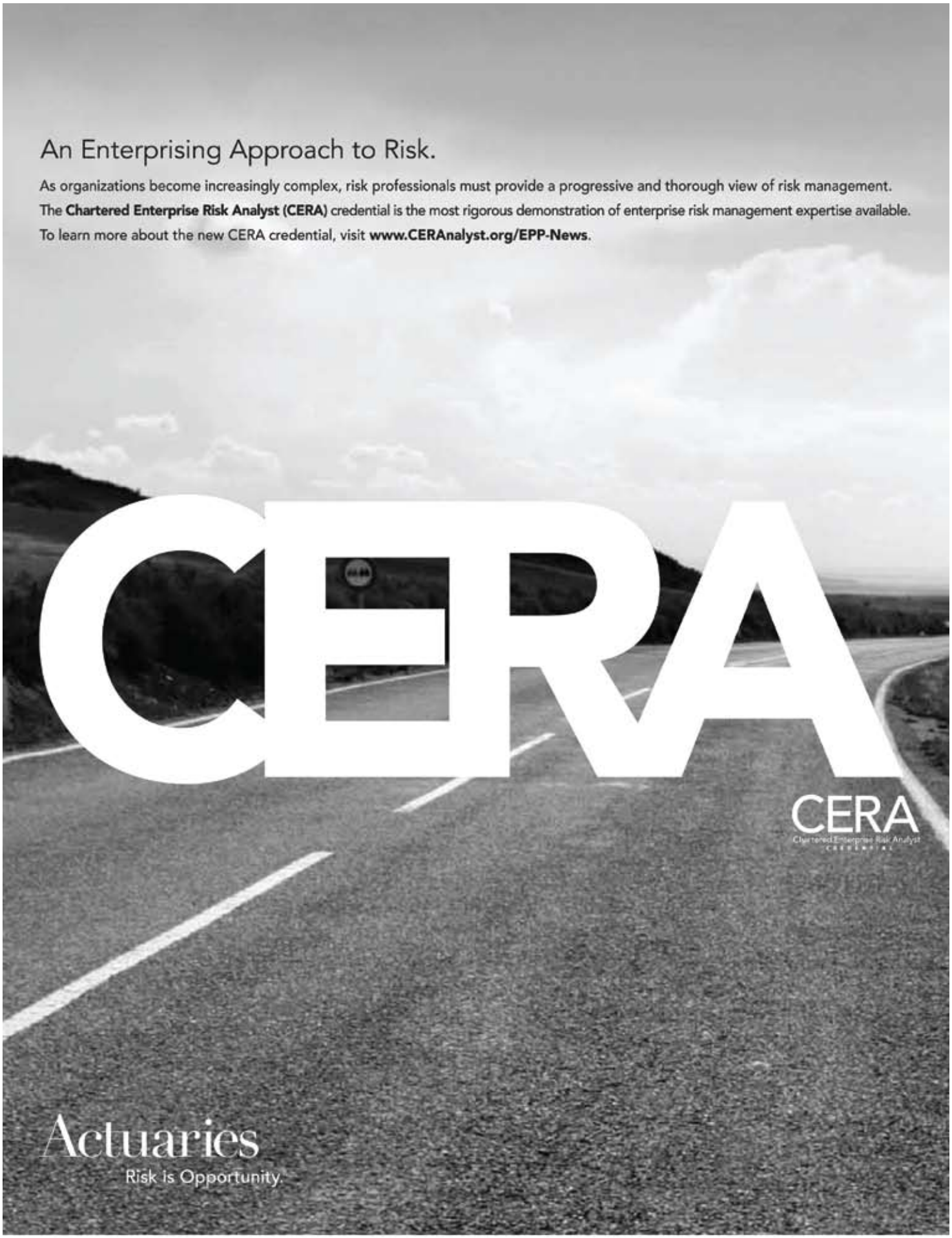
The full results of this Survey will be available in the fourth quarter of 2008 on the Munich Re America HealthCare Web site: *www.mrahc.com*

Broker Top Five criteria for ESL Partners

- Pays claims quickly and accurately.
- Rates and competitiveness of prices.
- Experienced and knowledgeable staff.
- Financial rating.
- Consistent yet flexible underwriting. ✹

Claudia Scott is VP, Business Development and Marketing Munich Re America HealthCare. She can be contacted at cscott@munichreamerica.com.

Stephen Fedele is AVP, Business Development and Marketing Munich Re America HealthCare. He can be contacted at sfedele@munichreamerica.com.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Risk is Opportunity.

THE SUBPRIME CRISIS: A BRIEFING FOR INSURANCE COMPANY CLAIM PROFESSIONALS[1]

By Jack Cuff, JD, CPCU, ARe

The wave of litigation stemming from the collapse of the U.S. subprime mortgage industry will likely reach new records of questionable distinction. They could include some of the highest levels of settlement amounts, parties sued, parties suing, and accounting complexity. By many yardsticks it will probably dwarf the lawsuits arising out of past financial crises such as the October 1987 stock market crash, the savings and loan debacle in the late 1980s[2] as well as the Enron/WorldCom accounting improprieties earlier in this decade. Insurers are bound to be drawn deeply into it on many fronts.

At the heart of the subprime problem is the fact that millions of U.S. mortgages originated by independent mortgage brokers were passed on to finance companies that in turn resold them to Wall Street firms and ultimately investors around the world. Other than the final investors, it would seem that no one along this chain needed to be worried about the credit quality of the home owners because they simply passed that entire risk on to parties down the line.[3]

Magnitude of the Subprime Crisis

In its study, *Securities Class Action Case Filings. 2007: The Year in Review*, the Stanford Law School and Cornerstone Research found that the number of securities lawsuits filed in 2007 increased 43 percent from the year before. It attributed the increase to the subprime crisis. This dramatic increase in subprime litigation is no doubt because of the huge financial losses. For example, Deutsche Bank analyst, Stephen Taub, predicted in his article, "Subprime

Losses Could Reach $400 Billion," that eventually 30- 40 percent of subprime debt will default, (CFO.com, Nov. 13, 2007). In February 2008, UBS, the giant Swiss financial group, estimated that the crisis could exceed $600 billion, including a loss of $350 billion to banks and brokers with the remainder spread out among other parties such as shareholders and the entire mortgage industry from appraisers to wholesalers. (By contrast, the U.S. savings and loan crisis of the 1980s ultimately cost taxpayers 3.2 percent of G.D.P., which would roughly translate into $450 billion today.) More estimates will surely be forthcoming as the subprime crisis unfolds.

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[1] This article is intended as background only and is not intended to apply precisely to any particular case. Always seek professional advice on specific facts and issues.

[2] "Looking at litigation activity from the savings-and-loan crisis of the early 1990s as a benchmark, subprime related cases filed in 2007 (federal court only) already equal one-half of the total 559 actions handled by the RTC over a multiple-year period." Subprime Mortgage and Related Litigation 2007: Looking Back at What's Ahead, Navigant Consulting Inc., Feb. 2008 publication.

[3] In a March 21, 2008 editorial, The New York Times described it as: "Translation: derivatives based on incomprehensible mortgages with unpredictable interest rates given to people who have no reasonable chance of understanding them, let alone paying them back."

The Subprime Crisis: ... from page 19

Impact of the Crisis on Insurers

The insurance industry will hardly be immune to this gathering subprime litigation storm. A February 2008 study by Navigant Consulting Inc.[4] found 278 lawsuits had already been made against virtually every participant in the subprime collapse. Fortune 1000 companies were named in 56 percent of these cases. Mortgage bankers and loan correspondents represent the highest percentage of defendants (32 percent), but defendants also include mortgage brokers, lenders, appraisers, title companies, homebuilders, servicers, issuers, underwriting firms, bond insurers, money managers, public accounting firms, and company directors and officers, among others. There is little doubt that most of these purchased professional liability coverage and have already notified their insurers.[5]

Also in February 2008, Advisen Ltd., a provider of technical information and data to the commercial insurance industry issued a report, "The Crisis in the Subprime Mortgage Market and Its Impact on D&O and E&O Insurers." In it, Advisen forecast D&O losses of $3.6 billion, "most of which will be borne by a small group of financial institution D&O insurers."

In mid-March Bear Stearns, which had considerable business in mortgage finance, had to be rescued through a takeover by J.P. Morgan Chase backed up by the federal government. No doubt every one of Bear Stearns' professional liability insurers have already been notified. J.P. Morgan Chase indirectly confirmed this when it announced that its transactional costs for this deal, would total about $6 billion—which specifically included considerable reserves for the anticipated expense of litigation over the collapse of and its purchase of Bear Stearns.

As this article was being written, the bad news kept coming. On April 23, 2008 Navigant Consulting, Inc. updated its February study and reported that the number of subprime-related cases filed in federal courts during the first quarter of 2008 had proceeded apace. A total of 170 cases were filed during the first *three* months of 2008 according to the firm. By contrast, there were 181 such filings over the final *six* months of 2007.

And perhaps for the first time, some carriers will find themselves simultaneously on many sides of a single case that is in dispute. For example, shareholders may sue the insurers' directors and officers for losing billions of dollars that they invested in the subprime bonds. But, as purchasers of collapsing subprime bonds themselves, insurers may consider an action against investment banks and brokers.[6] Finally, those insurers who provide professional liability insurance to directors and officers, investment banks, auditors[7] and other players in the financial and professional communities will experience an increase of claim reports *from* their policyholders as this crisis progresses.

One could easily imagine a scenario where the shareholders of an insurance company sue its Directors and Officers for losing money in subprime investments. When the insurer then sues the banks that sold it the bonds, it may discover that it provides those very banks with bankers' Errors and Omissions insurance protecting them against the claim they themselves made.

To minimize surprises, insurers need to consider how to stay ahead of the expected subprime litigation wave. They must: simultaneously develop early and adequate reserves based on current information; prepare for any possible coverage issues; alert their reinsurers as quickly as possible; and, to the extent they can, influence the course of the litigation as it proceeds. For those insurers exposed, failure to stay on top of the oncoming subprime deluge would be very foolhardy.

John J. Cuff, JD, CPCU, ARe, manages the Navigant Consulting Inc. Reinsurance Claims Practice in Greenwich, CT. He can be reached at *jcuff@optonline.net.*

[4] Subprime Mortgage and Related Litigation 2007: Looking Back at What's Ahead, Published Feb. 2008.

[5] A simplified outline of the NCI report is provided in the appendix. It indicates in summary form the claim categories, parties sued, and allegations of wrongdoing. See the full report for greater detail. The insurance policies that may provide coverage have been added by the author.

[6] See, e.g. Bankers Life Ins. Co. v. Credit Suisse First Boston, et. al., No. 8:07-CV-00690 (M.D. Fl. Apr. 20, 2007)

[7] See NYTimes, April 13, 2008, A Lender Failed. Did Its Auditor?

The Case Against the Defendants

Just how successful some of these lawsuits are likely to be for the plaintiffs is unclear and will depend on what is asserted and the weight of the evidence. The allegations appear to fall into two very broad categories: first, violation of state and federal securities laws and other statutes; and, second, common law causes of action such as fraud and negligence. They will include additional causes of action unique to the facts of each case.

The following discussion is by no means comprehensive or generally applicable. It is meant only to provide a flavor of some of the issues that may very well come up.

State and Federal Security laws

In its study, *Securities Class Action Case Filings. 2007: The Year in Review*, the Stanford Law School and Cornerstone Research described the chief allegations being made in the subprime litigation under the securities laws:

> It is noteworthy that approximately 19 percent of all cases in 2007 were specifically linked to issues in the subprime lending market. These subprime cases have caused a shift in emphasis from allegations related to traditional income statement line items to allegations related to balance sheet components. … Meanwhile, the percentage of GAAP-related cases alleging the understatement of liabilities, the overstatement of accounts receivable or of other assets, or problems with estimates, all increased from 2006 to 2007.

On first blush, it would seem that many defendants will have a strong defense to the complaints asserting violations of securities statutes. For example, recent U.S. Supreme Court decisions place the burden of proof squarely on the shareholders who are seeking recovery under federal securities laws. To even survive a motion to dismiss the complaint, the Court recently held that the shareholders must have evidence that is as "cogent and at least as compelling as any opposing inference of nonfraudulent intent."

In that June 2007 decision, the U.S. Supreme Court, in *Tellabs, Inc., et al v Makor Issues & Rights, Ltd et al*. No. 06–484 Argued March 28, 2007—Decided June 21, 2007, interpreted The Private Securities Litigation Reform Act of 1995. This Act requires plaintiffs to plead improprieties that "give rise to a strong inference of fraud" in order to proceed with a case and to access corporate documents. The decision made the hurdles for plaintiffs to survive a motion to dismiss the complaint very high. The Court held that:

> An inference of fraudulent intent may be plausible, yet less cogent than other, nonculpable explanations for the defendant's conduct. To qualify as "strong" within the intendment of §21D (b) (2), we hold, an inference of scienter [fraudulent intent] must be more than merely plausible or reasonable—it must be cogent and at least as compelling as any opposing inference of nonfraudulent intent.

The decision seems to present a no-win position for shareholders with strong suspicions, but no hard evidence of wrongdoing. To prove their case of fraudulent intent, these plaintiffs would have to conduct discovery; but before they are even allowed to conduct discovery they would first need to have evidence of wrongdoing. Defendants on the other hand would argue that this is only fair: the plaintiffs should be required to have strong evidence of wrongdoing before they can be allowed to tie up the corporation and the courts in a protracted fishing expedition.

The defendants' may also simply plead pure ignorance: they did not know anything any more than anyone else and never meant to mislead anyone. How could they foretell that the whole subprime house of cards would come crashing down? It is unprecedented. If they were wrong, the whole world was wrong.

Further, in January 2008, the U.S. Supreme Court rejected an effort to expand the scope of secondary liability in private lawsuits under the federal securities laws. *Stoneridge Investment Partners, LLC v. Scientific-Atlanta.,* No. 06–43. Argued Oct. 9, 2007—Decided Jan. 15, 2008.

In that case, two suppliers of a cable company entered into sham contracts apparently for the sole

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purpose of allowing the company to falsely improve its balance sheet and mislead its auditor, Andersen. The shareholders' action against the suppliers, Motorola and Scientific Atlanta, was dismissed by the Court since they had not made any statements that the plaintiffs relied on.

> Reliance is tied to causation, leading to the inquiry whether respondents' deceptive acts were immediate or remote to the injury. Those acts, *which were not disclosed to the investing public,* are too remote to satisfy the reliance requirement. [Emphasis added]

AS A FIRST IMPRESSION, MANY OF THE ELEMENTS NECESSARY FOR A SUCCESSFUL PROSECUTION FOR FRAUD APPEAR TO BE ABSENT IN THE CASES AGAINST THE MORTGAGE BROKERS. ...

Thus, in effect, the §10(b) private right of action does not extend to aiders and abettors of a stock market fraud if their statements "were not disclosed to the investing public." Some parallel could well be found as to the mortgage brokers, lenders, appraisers, title companies, etc. who may be sued under the federal securities laws. They might be successful in arguing that their misleading statements or acts, if any, were too remote to satisfy the reliance requirement because they were never disclosed to the public.

Common Law Fraud and Negligence

To prove a case of fraud under black letter law the claimant must demonstrate three elements: a material false statement made with an intent to deceive (scienter); a victim's reliance on the statement; and, damages.[8] As a first impression, many of the elements necessary for a successful prosecution for fraud appear to be absent in the cases against the mortgage brokers, lenders, appraisers, title companies, homebuilders, etc. These firms will argue that they never made a statement that they knew at the time was false and that someone would reasonably rely on. They were just doing their jobs, not making up stories, and never dreamt of the subprime crisis that was to come. In fact, their businesses, tied closely to the sale of land, are drying up because of the crisis; they would have wanted to avoid the subprime collapse as much as anyone else.[9]

At common law, a negligence recovery can be made only if the party sued had a duty of care towards the injured claimant, breached that duty, and the breach proximately caused an injury to the claimant. It remains to be seen whether the defendants in the subprime litigation had either a duty of care to warn the plaintiffs or, for that matter, breached it. They may argue that they could not predict that subprime borrowers would begin to default en masse as they ultimately did. In any case, the investors assumed this risk themselves. After all, they may assert, many were aware that behind the bonds were homeowners with checkered credit histories; they received the higher interest rates the bonds paid precisely because of this extra risk.

To overcome some of these hurdles, claimants will probably make an effort to examine each defendant's contemporaneous internal reports, analyses and all communications relating to the subprime business. They may look to see if the defendant was saying one thing internally (like it anticipated a meltdown) but quite the opposite publicly.[10] The claimants would

[8] Alternatively, the claimant must show that the defendant made a statement which was knowingly false and reasonably relied on by another person which proximately caused a financial loss.

[9] Most D&O and financial professionals' E&O policies exclude coverage for private profit, and for dishonest, fraudulent or criminal acts. But the language of the exclusion must be closely examined. Sometimes the exclusion requires a "final adjudication" of wrongdoing or contains the more open-ended requirement of wrongdoing "in fact." If a final adjudication is required then the insurer will need to provide a defense until the final adjudication is made. But if the latter, a closer question is presented.

[10] In the recently concluded federal criminal trial in Hartford involving finite reinsurance, consider how critical Gen Re's Robert Graham's e-mail was to his personal freedom: "How AIG books it is between them, their accountants and God," he wrote. He was convicted in February 2008 and faces 230 years in jail. Damaging e-mails and internal memos came to light in the government anti-trust prosecution of Microsoft. The same thing happened with investment banks' internal analyses in the WorldCom Litigation.

still need to show there was some duty to disclose this information to them.

The obstacles to winning a case against credit-rating agencies, or Nationally Recognized Statistical Rating Organizations (NRSRO), are particularly daunting for claimants. In past cases, the raters have invoked constitutional protections of free speech; comparing their evaluations of a company's debt to judgments made in a newspaper editorial. In *Lowe v. SEC,* 472 U.S. 181, 210 (1985), for example, the Supreme Court found there could be "no doubt" that publications containing information and commentary on market conditions and trends were protected by the First Amendment.

Damages

As indicated at the very beginning of this article, the estimates keep changing as to the size of subprime losses. It would be imprudent at this early stage to talk about provable financial losses in specific cases other than to say that the amounts sought should be sizeable. Because of the great magnitude of the subprime meltdown, claim staff should anticipate protracted and extensive litigation—both in coverage disputes and to defend the policyholder—with the attendant high costs. It should also be borne in mind that, by the terms of many contracts, defense expenses erode policy limits and should therefore be considered as a part of damages.

Conclusion

The tangled subprime mess has invaded the insurance industry in a variety of ways and some carriers will play several roles in it simultaneously. They will be plaintiffs suing their investment advisors and brokers; defendants in shareholder lawsuits; insurers of defendants who are in shareholder and other lawsuits; defendants and/or plaintiffs in coverage litigation; parties in arbitration against their reinsurers. There will be other roles they will play that cannot even be imagined now.

Coping with this will require ready access to full and accurate information, continuous analysis of coverage and exposures, and considerable internal coordination. It will be a challenge. ✺

CURRENT TRENDS IN THE SECONDARY INSURANCE MARKET

by Michael L. Frank, ASA, FCA, MAAA, ACHE

We are in 2008 and the actuarial industry is still in a quest to obtain empirical data on the insurance industry's secondary market with particular focus on life settlements. This article is based on emerging trends that we are seeing in the market based on our firm's work with select clients.

A life settlement is the sale of an unwanted life insurance policy that is in force today. If a sale of the policy is executed, it will typically be for an amount greater than the cash surrender amount offerred by the issuing life insurance company. In general, life settlements are policies held by older insureds (ages 65 and above) and with permanent insurance products, e.g., universal life, whole life, etc. The goal of this article is to provide information on some of the emerging trends in the life settlement and secondary insurance markets.

Our company has observed some recent emerging areas of interest in the secondary insurance market, and we have seen organizations interested in exploring the following:

- Purchase of beneficial interest policies.
- Exploring the synthetic insurance market.
- Development of bridge loan facilities.

Furthermore, we are also seeing organizations react to the impact of the subprime market and divesting investments including the secondary insurance market. In addition, this article will highlight additional trends in the market as recently reported by A.M. Best and some of the life settlement underwriters.

Growing Interest in Beneficial Interest Policies

What are beneficial interest policies? To understand a beneficial interest policy, we are providing basic information about the participants in a life insurance policy. For any individual or group insurance policy, we would have individuals (or corporations) defined for each of the covered insured, policy owner and beneficiary. A typical insurance policy might have an individual as the policy owner and covered insured, with the individual's family as the beneficiaries. For a beneficial interest policy, the owner and beneficiary of the insurance policy are listed as an insurance trust. The insured's spouse or child is often the beneficiary of the trust.

Upon selling a policy as part of a life settlement transaction, the covered insured will typically be the same as before. However, the policy owner and the beneficiaries will most likely be a different party, most commonly the company buying the policy, e.g., a life settlement company. The purchaser, which might even be another trust, acquires beneficial interest and makes the agreed upon payment to the trust's beneficiary. The owner and the beneficiary of the insurance policy have not changed. The rest of the transaction resembles a life settlement, since once the policy is sold, and the insured is no longer the owner of the policy, all premium payments and obligations become the responsibility of the purchaser.

In cases of beneficial interest policies, the desired approach is to find beneficial interest policies whereby there is one beneficial interest party with 100 percent; otherwise, it will be difficult to complete a successful transaction. In our experience, any organization interested in beneficial interest policies that has more than one beneficial interest party is recommended not to explore the transaction since all parties need to be involved and agree with the decision, which can sometimes be a challenge. In this instance, the probability of a successful transaction will be low. Furthermore, once rights are purchased, the purchaser will require 100 percent ownership so that they can unilaterally make decisions on premium payments and levels of funding.

Our firm has seen a recent growth in demand for both the buying and selling of portfolios of beneficial interest policies. It will be interesting to see if this is a short-term phenomenon or an emerging trend.

Increased Interest in Synthetics

Today, the life settlement industry is faced with significant obstacles including:

- A compression in funders due to the challenges of the subprime market and its adverse impact on buyer capacity in the market, i.e., hedge funds are a big part of the buyer community.
- A significant number of policies that are available for purchase are in the contestable period e.g., policies issued less than 24 months, or originated through premium financing or the combination of both. There tends to be a limited number of buyers for these types of policies.
- The financial impact, relatively high level of expenses, and ethical perception of the life settlement brokerage/buyer market has turned investors away from playing in the life settlement space.

As a result, we are seeing a bigger movement of investors in life settlements move into the artificial or synthetic market. In this market, investors are making investments in life settlements, but there are no actual insurance policies or pitfalls of the traditional life settlement market, e.g., layers of brokers looking to be compensated, insurable interest issues, life settlement licensing/regulatory requirements, etc.

With synthetics, some of the actuarial formulas used are the same such as development of expected benefits and expected premiums, or the present value of these amounts, as well as return on investment (ROI). What is different is that there are no real policies, but illustrative ones. The lives valued are real and professional organizations are used to underwrite these individuals and administer the record keeping of these individuals. The policies created are a predetermined cash flow stream of death benefits and premiums. The premiums are based on the expected mortality cost with adjustments for a risk/profit charge plus a cost to run the facility.

Cash values are not a factor in the synthetic market, which makes things easier when valuing ROIs, since synthetic policies do not have to consider the impacts of these items. The definition of life insurance under IRS code section 7702 and the seven-pay test are not in play, since there is no life insurance.

Why are organizations excited about this market? For the reasons stated above, there are less moving parts and less regulatory and operational hurdles to jump through. The traditional life settlement proposition is that investors will have a present value of future benefits greater than the present value of future premiums plus the present value of other expenses, e.g., payment to policyowner to buy the policy, commissions to life settlement brokers, and other expenses to cover the licensing/administration of the life settlement provider/buyer of policies.

Methodologies used for pricing these types of programs may be similar to those used by actuaries today for premium development and reserve valuation for life insurance. This would include selection of mortality tables, interest rate discounts, expense margins, and projected profit returns. Actuaries may be using commutation functions or life contingency functions such as A's, a's, V's, px's, qx's and many other actuarial formulas. A key selection area is the choosing of the correct mortality table and mortality loads to go with the table and applying a margin, whether implicit or explicit.

The counter-argument is that this sounds like Las Vegas meets the life settlement industry, since the house (the organization setting the premium rates) controls the odds so that the present value of future benefits (the payout) will be less than the present value of future premiums (the amount bet). In the life settlement arena, individuals are taking a bet that over time older issued policies had a material change in mortality, e.g., preferred became standard or substandard over time. If investors are making the mortality bet, then how off will their bet be if material changes in underwriting are not anticipated. Does this scenario look like blackjack odds (a game that I still love to play despite my chances of winning being less than 50 percent)?

There are multiple derivations of these synthetics. Organizations in the banking industry have been introducing these products to the market. We anticipate additional programs to be rolled out in the market, and have received inquiries on these programs from both the investor perspective as well as companies offering, or potentially developing, these kinds of products.

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Michael L. Frank, ASA, FCA, MAAA, ACHE, is President of Aquarius Capital and Council Member for the Reinsurance and Entrepreneurial Actuarial Sections. Michael can be reached at *michael.frank@aquariuscapital.com*.

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Premium Finance Bridge Loans

With the growth of the premium finance market, the market is seeing new financial products such as bridge loans for the secondary insurance market. For example, a short-term bridge funding enables clients to pay off a premium finance loan so that the life insurance policy can be sold in the secondary market. The purpose of the bridge funding is to release any security interests on a policy allowing financial professionals to help their clients realize a policy's value, even while a loan exists. When a policyowner is unwilling to come out-of-pocket and be at risk for their policy, this is where a bridge funding provider might be able to provide a solution.

Why is a bridge loan needed? A policy that is premium financed will have a collateral assignment attached to the policy to secure the loan. Typically policies cannot be purchased by the secondary insurance market when a collateral assignment exists. The bridge loan removes the collateral assignment and allows the policy to be sold in the secondary market.

How does this work conceptually? The client enters into an agreement with a bridge loan company, in which the client agrees to sell the policy to a life settlement provider and the bridge loan company agrees to pay off the premium finance loan directly. When the payment is made, the collateral assignment is released against the policy and the policy is conveyed to the purchasing provider. The client then receives proceeds from the sale of the policy and the bridge loan company is repaid from these proceeds.

This appears to be a growing market. Some of the requirements to make this work would be that the policyowner has multiple offers from the secondary market to buy the policy. This resembles a home loan concept since the loan companies would want a loan-to-value ratio below 100 percent, ideally less than 80 percent, to ensure that they will be able to collect on the repayment of the loan.

Upon completion of the sale of the policy, the bridge loan, including the principal and all loan fees, are to be paid back by the purchaser or the appropriate escrow agent handling the transaction by disbursing funds to the loan company with the remaining amount being disbursed to the seller.

Some of the requirements to execute a bridge loan would include obtaining closing/sale documents from the purchasing company so that the transaction is ready to be executed. This may also include a letter from the purchaser that their due diligence is complete and ready to close. The bridge loan company might want information on additional offers received to make sure that they have any backup in case of a failed closing, plus may require multiple life expectancy valuations by third-party underwriters, that are current (within six to 12 months).

Subprime Market Impact Resulting in Divesting Portfolios

The subprime market has adversely hit the life settlement market. We have seen a significant reduction in requests from organizations interested in exploring life settlements for purchasing. This includes both organizations interested in purchasing as well as others providing other securities and instruments, e.g., financing, reinsurance/life extension coverages similar to Lloyds of London's Goshawk syndicate. Hedge funds that have purchased policies are now exploring exit strategies to cover the financial impact of the subprime market.

We have seen several organizations with portfolios of contestable policies, typically policies less than two years old, in the market. This may be the result of a combination of purchasing of policies through premium financing and beneficial interest portfolios.

A.M. Best Updates

A.M. Best released an update of their Life Settlement Securitization document in March 2008. The information included in this document is an update from previous releases which provides details of: (a) A.M. Best's rating policy, (b) A.M. Best's analytical approach, (c) evaluating the credit risk of the securities, and (d) other related items pertaining to life settlements. Individuals interested in learning more about life settlements should reference this document. It provides information and important considerations for participants considering investing in the life settlement arena, whether or not they want to have their portfolios debt rated. Visit A.M. Best's

Web site: *http://www.ambest.com/debt/lifesettlement.pdf* for additional information.

Recent Release and Use of 2008 VBT Table for Medical Underwriting

One of the larger players in the market, 21st Services, announced that it will be moving to a new mortality table, which is the 2008 Valuation Basic Table. Other organizations have announced that they will be using the table as well. For example, a new underwriting organization, Global Life Underwriting, announced this September that it will be providing underwriting for the life settlements market using the 2008 VBT table.

The market perception of medical underwriting, in our opinion, is that several of the key underwriting organizations, or possibly the industry as a whole, has underestimated life expectancy. The move to more conservative underwriting practices combined with the use of a more current mortality table is an indication that life expectancy calculations will be higher than prior projections. This move may lower the life settlement purchase prices and reduce the number of successful life settlement transactions. Organizations holding portfolios of life settlements may also be impacted if their portfolios are re-evaluated with more conservative life expectancy assumptions—this may ultimately lower their return and may even result in potential losses in their portfolios. Actuaries valuating life settlements today should take notice of this since clients may request reassessments or additional sensitivity analysis in their portfolios.

Furthermore, there have been discussions recently in the industry with regard to developing a more consistent basis and standardization for underwriting life expectancy, e.g., moving to a more consistent underwriting basis. It will be interesting to see if this could be implemented and this will be an area that will need to be monitored further by the industry.

Opportunities and Pitfalls for Actuaries

Many organizations involved in the life settlement arena, including synthetics and beneficial interest policies, will require assistance in evaluating policies, risk models and portfolios. Many of the formulas required for these types of analysis are the fundamental actuarial calculations, e.g., life contingencies and commutation functions, which are the basis of actuarial math. As a result, actuaries have a unique skill set in this area.

Actuaries consulting in this arena should make sure to underwrite and assess the parties that they will be providing services to. The players in the secondary market do not necessarily play by the same rules as those we traditionally deal with when consulting for insurance companies.

We recommend that actuaries working in this field consult outside assistance when evaluating opportunities. For example, actuaries will want a formal contract with the company that they are doing business with.

Even with a strong contract, and we strongly recommend that you have one, you may find that the parties may not ethically be willing to comply with the agreement nor have the financial strength to meet the obligations on the contract. If you are providing services to a newly formed organization or an organization with limited financial strength, then it may be recommended to obtain a financial guarantee from another organization in case your client goes insolvent.

In addition, some other tips for consulting actuaries are to check references on your clients. An organization investing in life settlements may want to do the same thing. Checking references may seem like common sense, but becomes an important consideration. A retainer fee on these types of projects is also not a bad idea in case your client is unable to meet its financial obligations. ✹

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