

Reinsurance news

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Issue 68 | July 2010



Life Reinsurance Data from the Munich Re Survey

By David M. Bruggeman

Munich Re's annual survey, which is conducted on behalf of the Society of Actuaries Reinsurance Section, covers Canadian and U.S. ordinary and group life reinsurance new business production and in force. The ordinary numbers are further subdivided into:

- (1) Recurring reinsurance¹: conventional reinsurance covering an insurance policy with an issue date in the year in which it was reinsured,
- (2) Portfolio reinsurance: reinsurance covering an insurance policy with an issue date in a year prior to the year in which it was reinsured, or financial reinsurance, and
- (3) Retrocession reinsurance: reinsurance not directly written by the ceding company.

Complete survey results can be found at the Munich Re (US) website: www.marclife.com (look under Publications).

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 (richard_jennings@manulife.com) by September 5th, 2010. Some articles may be edited or reduced in length for publication purposes.

If you would like to assist in the editing process of the Reinsurance News, please contact Richard Jennings, Editor, Reinsurance News, or Leonard Mangini at Leonard.Mangini@acegroup.com.

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Letter From The Chair By Ronald Klein

A few months ago I received a call from my good friend Denis Loring. It seems that Denis had a dilemma that he needed my help in solving. Every year Denis teaches a course called *Introduction to Life Reinsurance* at the Reinsurance Association of America's conference entitled Re-Basics. This year, it seems, Denis planned a well-deserved vacation to France at the same time as the conference. During the phone call, Denis proclaimed that I would be his first choice to teach this course in his place as I knew a lot about the basics of life reinsurance (he emphasized the word "basics"). I am still trying to figure out if this was a compliment or an insult ... Anyway, I immediately accepted his kind invitation.

This conference mainly attracts people whose jobs touch upon reinsurance in some capacity. The attendees included employees of insurance companies that work with claims, contracts, administration and other technical areas; some state insurance regulators; reinsurance brokers; and a few employees of reinsurance companies. What I did not realize is that none of the participants had any life reinsurance knowledge—all attendees had a non-life background.

To make matters worse, I followed a 1:45 minute presentation that was entitled *Introduction to Property and Casualty Reinsurance*. Not only did I have to re-teach all of the vocabulary that was mentioned in this session, but I only had one hour to do so. Once again, I am reminded how the life insurance and reinsurance industries are ugly step-children to their non-life counterparts. During my presentation, I showed a slide with some data from the latest Society of Actuaries/Munich Re (US) life reinsurance survey. It shows that RGA sold the most new recurring reinsurance premium in 2009. RGA was followed by Swiss Re, Munich Re, Transamerica Re and Hannover Re. (Please see Dave Bruggeman's article on the MARC reinsurance survey in this issue).

When I asked the audience which companies they had heard of, the answer was quite interesting, but understandable. Not one person in the audience had heard of RGA, while every attendee heard of the other four reinsurers. Why? The answer is quite simple. RGA is the only company in the top five that does not participate in non-life reinsurance. What is even more interesting is that Denis is the usual presenter and he works for RGA!

To those of us who work for a multi-line insurer or reinsurer, we are reminded each and every day that we are second-class citizens. I remember marveling in my early years at Swiss Re at how the stock price would skyrocket when an article would hit the trade journals that property and casualty rates were expected to harden, but how there would be no effect on the stock price when a major life reinsurance deal was announced. Also, it never ceases to amaze me when external auditors try to understand risk transfer in a financial reinsurance agreement by asking if there is a 10 percent chance of a 10 percent loss. My reply is always the same, "I sure as heck hope not."



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Now we move to one of my favorite subjects—the LEARN initiative. This is a brand new initiative of the Reinsurance Section Council and a pet project of mine. I would love to give you the meaning of the acronym LEARN, but quite honestly, I can't remember (although I know that the "R" stands for Reinsurance). For those of you who are not familiar with LEARN, it is an initiative to teach state regulators the basics of life reinsurance at their place of business. The goal is for the Reinsurance Section of the Society of Actuaries to become *the* source of unbiased information pertaining to life reinsurance. Wouldn't it be great if our regulators knew more about life reinsurance so that they could effect better regulation upon the industry?

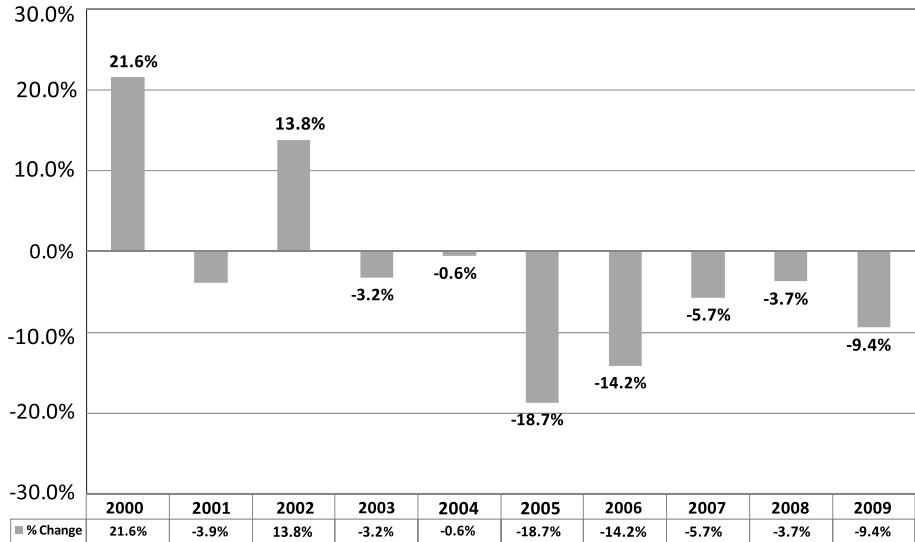
The reason that I bring up LEARN is that we ran our first session recently and received feedback. While the feedback was unbelievably positive (mainly due to the presenters—Sean Burt and Jim Burt, the project leader Jeff Katz, the Reinsurance Section Coordinator, Kelly Levy and our slide reviewer Donna Jarvis), there was one comment that baffled me. The regulator asked if we could talk about non-life reinsurance as well the next time that we present ... Ahhhhhhhhhhh, the non-life bug bites again!

Then it dawned on me—if you can't beat 'em, join 'em. Why don't we as life reinsurance actuaries learn more about non-life reinsurance? Why don't we attend more non-life meetings, speak at more non-life meetings, get out and fight for our cause? Let's put RGA on the non-life map (Greig, I would like the blue car with the white detailing that we discussed).

As my time as chairperson of the Reinsurance Section Council winds down and as Larry Stern gears up to become the new Chairperson, I would like to challenge Larry to take on this project. We should coordinate better with historically non-life organizations and become known. Instead of whining about being second-class citizens (although I am quite good at whining), let's do something about it. Well, this is just a thought from the Chairperson's corner.

Finally, I would like to encourage you to join the Reinsurance Section Group on LinkedIn. It was created with the desire to have Reinsurance Section members engage in thoughtful conversation on reinsurance-related industry topics. What do you think about an optional federal charter? Should reserve credit for reinsurance be based upon the reinsurer's ratings as opposed to state of domicile? Will principle-based reserving help or hurt the reinsurance industry? Please join the Group, if you haven't already done so, and begin to post some comments. For more information about LinkedIn, visit the website at <http://linkedin.com>. ■

Annual Percentage Change in U.S. Recurring News (2000-2009)



LIFE REINSURANCE PRODUCTION: PORTFOLIO TO THE RESCUE!

2009 proved to be another interesting year for the life reinsurance industry—filled with ups, downs, large block deals and acquisitions. Similar to 2008, the increase in portfolio business far outweighed the decreases in the recurring and retrocession categories resulting in an overall increase in production for the United States and Canada. The United States recorded a 53.9 percent overall increase in production while Canada recorded a 127.8 percent overall increase. The United States experienced very sizable increases in portfolio on both the ordinary and group side, while group portfolio fueled the increase in Canada. It is important to note that the increase was not enjoyed by all companies and can be traced to just a few companies who wrote large deals in 2009. Without these large deals, the market would have declined as both recurring and retrocession business production fell in 2009. U.S. recurring slid 9.4 percent, while Canadian recurring squeaked out a small increase of 1.5 percent. Retrocession production dropped considerably in the United States (48.6 percent decrease) and in Canada (73.7 percent decrease).

Life reinsurance production results for 2008 and 2009 are shown below:

U.S. RECURRING: THE SLIDE CONTINUES—SEVEN DOWN YEARS!

Those who are superstitious have to wonder if the

U.S. life reinsurance industry broke a mirror in 2003 because it has been seven years since the industry recorded an increase in recurring production. The 9.4 percent decrease reported in 2009 reversed the trend of steadily shrinking decreases since 2005. Production fell 14.2 percent in 2006, 5.7 percent in 2007 and 3.9 percent in 2008. Granted, most of the decrease in 2009 can be attributed to sluggish direct sales—which fell approximately 5 percent, but the 9.4 percent drop represents the third largest decrease in the decade.

The annual percentage change in U.S. recurring new business since 2000 is shown above.

Life Reinsurance New Business Production						
	U.S.			Canadian		
	2008	2009	Change	2008	2009	Change
Ordinary Life						
Recurring	657,817	595,876	-9.4%	150,038	152,343	1.5%
Portfolio	256,786	776,710	202.5%	19,078	437	-97.7%
Retrocession	28,812	14,817	-48.6%	2,778	731	-73.7%
Total Ordinary	943,415	1,387,403	47.1%	171,894	153,511	-10.7%
Total Group	337,463	583,518	72.9%	6,043	251,896	4068.4%
Total Life	1,280,878	1,970,921	53.9%	177,937	405,407	127.8%

U.S. figures are in \$US Millions, Canadian figures are in \$CAN Millions

¹ Included in the definition of recurring is business assumed from the direct side of companies that also have a reinsurance division. Business assumed from the reinsurance division would fall under the retrocession category.

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// THE TOP THREE REINSURERS ACCOUNTED FOR 60 PERCENT OF THE MARKET SHARE AND THE TOP FIVE COMPANIES MADE UP 85 PERCENT OF THE MARKET. //

Those familiar with prior years' survey results should not be surprised at how concentrated and stratified the recurring market has become—and the 2009 results do little to change this picture. The top three reinsurers accounted for 60 percent of the market share and the top five companies made up 85 percent of the market. Similar percentages were seen in 2007 and 2008 for the top three and top five companies. As far as stratification goes, the company results can easily be broken into four distinct groups:

1. Group One: This group represents companies who reported over \$100 billion in recurring production in 2009. The 2009 members are no strangers to this top group. In fact, the same three companies (RGA, Swiss Re, and Transamerica Re) have held the top three spots every year since 2006 and have been in the top five together for well over 10 years. While the group has not changed over the years, their relative positions have changed. RGA took the top spot in 2009, followed by Swiss Re and then Transamerica Re. As noted earlier, these three companies made up 60 percent of the entire recurring production market. RGA's \$133.6 billion in

2009 represented a 0.8 percent increase from 2008 and a 22.4 percent market share. Swiss Re's \$114.8 billion placed them in second position with a 19.3 percent market share. Finally, Transamerica captured the third position by writing \$107.8 in recurring production. This gave them an 18.1 percent market share. Both Swiss Re and Transamerica Re did experience decreases in production from 2008 to 2009. Swiss Re had a 20.2 percent decrease and Transamerica's production fell 22.8 percent.

2. Group Two: This group includes the two companies who wrote between \$50 and \$100 billion in recurring production. Munich Re's \$80.6 billion in recurring production represented a 62.2 percent increase from 2008 and resulted in a 13.5 percent market share. Generali USA wrote \$70.0 billion which equated to an 11.8 percent market share.

3. Group Three: This group is made up of five companies who reported recurring new business between \$10- and \$20-billion in 2009: Hannover Life Re, Canada Life, SCOR Global Life Re, Ace Tempest Life Re, and Gen Re. Collectively, these companies made up 12.7 percent of the 2009 market share. Canada Life experi-



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enced the largest production increase among this group, recording a 14.2 percent increase in 2009.

4. Group Four: This final group represents companies who wrote less than \$10 billion in recurring new business in 2009. Wilton Re, Optimum Re, RGA (Canada) and Employers Re are the members of this group. Group Four's combined market share was 2.1 percent.

The distinction between each group is by no means arbitrary as there are easily apparent lines between each group. For example, there is a \$27.3 billion difference between the lowest Group 1 member and the highest Group 2 member. Likewise, there is a \$50.7 billion difference between the lowest Group 2 member and the highest Group 3 member.

Munich Re (US) reported the largest recurring new business increase in 2009. Their \$30.9 billion increase was, by far, the largest increase in 2009. Canada Life's \$2.4 billion production increase was the second largest reported. Several companies reported production decreases in 2009. The largest decreases were reported by three of the top five producers: Transamerica Re's production fell \$31.9 billion, Swiss Re reported a \$29.0 billion drop and Generali USA's production declined \$12.4 billion.

Two other noteworthy items relating to U.S. reinsurance activity in 2009:

1. XL Re was acquired by SCOR Global Life (US). XL Re was a relative newcomer to the U.S. life reinsurance market, having entered in 2006.
2. Hannover Life Re acquired a book of individual life business from Scottish Re. This was the ING block purchased by Scottish Re in 2004.

CANADA RECURRING: STABLE IN 2009

Canadian recurring reinsurers were able to record a small 1.5 percent increase overall. This follows the 7.7 percent increase experienced in 2008. Looking at the results by company shows practically all of the increase can be attributed to Munich Re. Munich Re's recurring

U.S. Ordinary Recurring Reinsurance (U.S. Millions)

Company	2008		2009		Change in Production
	Assumed Business	Market Share	Assumed Business	Market Share	
RGA Re	132,474	20.1%	133,591	22.4%	0.8%
Swiss Re	143,791	21.9%	114,752	19.3%	-20.2%
Transamerica Re	139,703	21.2%	107,834	18.1%	-22.8%
Munich Re (US)	49,660	7.5%	80,564	13.5%	62.2%
Generali USA Life Re	82,423	12.5%	70,023	11.8%	-15.0%
Hannover Life Re	17,913	2.7%	19,361	3.2%	8.1%
Canada Life	16,800	2.6%	19,191	3.2%	14.2%
SCOR Global Life (US)	17,838	2.7%	17,503	2.9%	-1.9%
Ace Tempest Life Re	10,365	1.6%	10,265	1.7%	-1.0%
Gen Re	14,388	2.2%	10,088	1.7%	-29.9%
Wilton Re	7,983	1.2%	7,168	1.2%	-10.2%
Optimum Re (US)	6,555	1.0%	4,855	0.8%	-25.9%
RGA Re (Canada)	232	0.0%	400	0.1%	72.4%
Employers Re. Corp.	134	0.0%	281	0.0%	109.7%
Scottish Re (US)	5,982	0.9%	0	0.0%	-100.0%
XL Re Life America	11,576	1.8%	0	0.0%	-100.0%
TOTAL	657,817	100%	595,876	100%	-9.4%

production increase of \$5.5 billion was the only sizable increase in the Canadian market. RGA experienced a \$1.8 billion decrease and Swiss Re reported a \$0.9 billion decrease in production from 2008 to 2009.

The Canadian market remains dominated by these three companies. Collectively, RGA, Munich Re and Swiss Re account for 94.5 percent of the recurring production market. Individually, 2009 market shares for RGA, Munich Re and Swiss Re were 33.1 percent, 32.4 percent and 29.0 percent respectively. Other players in the market include: SCOR (2.7 percent market share), Optimum Re (2.6 percent market share) and Aurigen Re (0.2 percent market share).

Despite the recent tough economic times, preliminary estimates from LIMRA show Canadian life insurance sales actually increasing 3 percent by face amount in 2009. Thus, the Canadian "cession rate" would appear to have remained fairly stable in 2009.

Totals for Canadian recurring ordinary reinsurance assumed in 2008 and 2009 are as follows:

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Canada Ordinary Recurring Reinsurance (\$CAN Millions)					
Company	2008		2009		Change in Production
	Assumed Business	Market Share	Assumed Business	Market Share	
RGA Re (Canada)	52,289	34.9%	50,441	33.1%	-3.5%
Munich Re (Canada)	43,828	29.2%	49,303	32.4%	12.5%
Swiss Re	45,135	30.1%	44,190	29.0%	-2.1%
SCOR Global Life (Canada)	4,452	3.0%	4,061	2.7%	-8.8%
Optimum Re (Canada)	4,303	2.9%	4,007	2.6%	-6.9%
Aurigen Re	30	0.0%	341	0.2%	1,036.7%
Canada Life	1	0.0%	0	0.0%	-100.0%
TOTALS	150,038	100%	152,343	100.0%	1.5%

PORTFOLIO AND RETROCESSION: ONE SKYROCKETS, ONE PLUMMETS

It was another big year for large portfolio deals in the United States. Hannover Re's acquisition of the ING individual life insurance business from Scottish Re was the largest deal reported in 2009, but there were many other companies reporting sizable levels of portfolio business. Hannover reported \$543.3 billion in ordinary life portfolio (\$529.8 coming from the ING/Scottish acquisition). Other companies with significant individual life portfolio writings in 2009 were: Canada Life (\$139.3 billion), RGA (\$40.2 billion), Wilton Re (\$22.2 billion), SCOR (\$17.9 billion) and Transamerica (\$7.2 billion).

The Canadian market's portfolio volumes were not able to sustain the large increase of 141.6 percent experienced in 2008. The 2008 increase came solely from one company (Aurigen Re). Portfolio returned to play a minimal role in the Canadian individual life market as it dropped 97.7 percent—back down to \$0.4 billion.

U.S. retrocession production fell almost 50 percent in 2009 as each of the top retrocessionaires experienced decreases of no less than 40 percent. This is quite a change from the previous three years where retrocession production closely followed the pattern of recurring production. The 48.7 percent drop represents a \$14.0 billion decrease from 2008. Similarly, the Canadian retrocession market also experienced a large drop in production. The Canadian retro market fell 73.7 percent from \$2.8 billion in 2008 to \$0.7 in 2009. The reason for the sudden drop is due to reinsurers increas-

ing their internal retention limits. It is also possible the economy had a negative impact on retro business in that fewer large face amount policies were issued in 2009, thus reducing the need for retrocession.

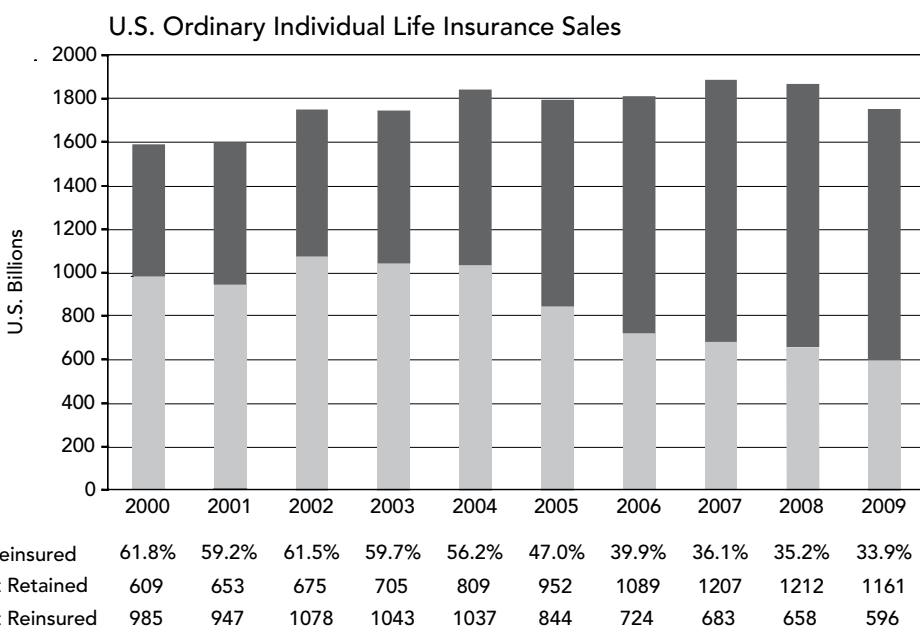
GROUP: BLOCK DEALS CONTINUE IN 2009

In recent years, the Group market has seen an increase in the number of large in-force block deals and 2009 continued this trend. On the U.S. side, large group block deals were written by Canada Life and Generali. Similarly on the Canadian side, the increase is due to portfolio deals that were written in that market. Including these deals results in U.S. group production rising 72.9 percent and Canadian group production going up a whopping 4,068.4 percent. However if the large block deals are excluded, we see group production actually dropped off. There has already been one large group acquisition deal in 2010—RGA acquired ING Re's group business.

COMPARISON WITH DIRECT MARKET: CESSION RATE DROPS ONCE AGAIN

Given the economic environment in 2009, it is not too surprising that direct life sales were down. LIMRA estimates life insurance sales dropped 5 percent by face amount in 2009. If we take this number and compare it to the 2009 recurring results, the percent reinsured rate, or "cession rate," was 33.9 percent in 2009. The cession rate has not been this low since 1996. The graph on pg. 9 compares ordinary life new business totals with the recurring life reinsurance totals for the United States.

This marks the seventh straight year the cession rate has declined. At the beginning of the decade, the cession rate was above 61 percent but it has steadily dropped over the years to the current rate of 33.9 percent. The cession rate has remained somewhat stable during the last four years—hovering between 30- to 40-percent. There is no doubt the high cession rates experienced in the early-2000's were coming from term coinsurance business. At that time, reinsurers were able to provide a solution to fund the increase in reserve strain brought on by the new Reg. XXX. But over time, other financial markets have also been able to provide competitive



solutions. Greater competition coupled with the reinsurance market's repricing efforts in the mid-2000's led to more YRT business and less coinsurance being written than earlier in the decade. Even more importantly, the reduced need for direct companies to use reinsurers to provide reserve relief allowed them to retain more of their business and reinsure less.

CONCLUSION: BRING ON THE NEW DECADE

The 2009 results were very similar to the "good news/bad news" results of 2008 in that a relatively few, very large portfolio deals pushed an increase in overall total production while at the same time, recurring business, which is often seen as a measuring stick for the market, continued its downward trend.

Several U.S. reinsurers made efforts to increase their capital position (or access to capital) in 2009. These moves could poise them for growth in 2010 in a couple of ways. First, an increase in capital (or access to capital) could be used to support XXX reserves and allow for the offering of competitive coinsurance terms. There is still a demand for term coinsurance provided a

reinsurer has a competitive financing solution. Second, the capital could be used for acquisitions, whether for acquiring blocks from direct writers or through acquisition/merger with a competitor. Several experts have predicted an increase in M&A activity in 2010 for the insurance sector. Another hopeful sign is the direct sales numbers from the fourth quarter of 2009, which showed sales beginning to improve compared to the beginning of 2009. A recovering economy in 2010 could boost direct sales and, in turn, boost reinsurance production.

Given the results over the last few years, I'm sure there are some who will gladly say goodbye to the 2000's and hope for better times in the 2010's! ■

DISCLAIMER:

Munich Re prepared the survey on behalf of the Society of Actuaries' Reinsurance Section as a service to Section members. The contributing companies provide the numbers in response to the survey. These numbers are not audited and Munich Re, the Society of Actuaries and the Reinsurance Section take no responsibility for the accuracy of the figures.

Evolving Life Reinsurance Market Keeps Focus on Stability

By Meg Green

Even as financial markets rumble and cession rates fall, life reinsurers remain focused on stability.

The market has evolved dramatically in the past decade. While almost 10 companies used to write 85 percent of the business, today the top five players write 85 percent of the business. In addition to consolidation, life reinsurers have seen their piece of the pie shrink. Cession rates were at their lowest point of the decade in 2009, at 33.9 percent, down from 61.8 percent in 2000, according to an annual life reinsurance survey conducted by Munich Re on behalf of the Society of Actuaries.

Also, retrocession rates tumbled 49 percent in 2009. “It’s a result of reinsurers retaining more of their business. Volume amounts have dropped,” Dave Bruggeman, assistant vice president at Munich Re, said.

Bruggeman, the author of Munich Re’s annual survey, said the drop in retrocession is a symptom of fewer players in the market. “It’s such a concentrated market, if one or two reinsurers raise retention, it really impacts the retrocession market,” he said.

Recurring life reinsurance—reinsurance written the same year as the primary policies—dropped 9.4 percent, the seventh consecutive annual drop, according to Munich Re.

But, the life reinsurance marketplace remains stable, experts said.

At the beginning of the decade, primary writers were just beginning to come to terms with the new reserving requirements of XXX and AXXX. Many primary writers sought out reinsurers to help carry the increased reserve requirements, or turned to bank solutions, such as letters of credit, or even securitizations.

The structured financial market has stalled since the financial market meltdown, which was caused in part by problems with mortgage-backed securities, said Chris DesRochers, senior managing director of consulting firm LECG.

“To the extent that interest rates are down, structured finance really hasn’t been available and the cost of

letters of credit has gone up with upheaval in the financial markets. That’s created pressure on the term market and term pricing,” DesRochers said. “Capital is still a very big driver in the market. The cost of capital has gone up for the industry, and that’s played through on the term side.”

Indeed, after 15 years of sharp pricing declines, term insurance premiums began to rise in 2009, according to Swiss Re. The premium for a \$500,000 policy on a 35-year-old man with rate guarantee for 20 years rose 5 percent on average, while the premium for a policy with a 10-year guarantee was up 6 percent.

Life reinsurance was a factor in that increase, “but more a symptom than a cause,” said David Laster, senior economist at Swiss Re. Reinsurers and primary writers “are swimming in the same financial currents,” he said.

As a result, primary writers are impacted directly as well as indirectly through reinsurance, Laster said.

About 50 percent of term life writers rely on reinsurance to provide coinsurance. “The client takes the reinsurance credit so they don’t have to hold the statutory reserves for business they are ceding off,” said Frank O’Neill, managing director of Swiss Re Life & Health America.

The dawn of XXX saw reinsurers becoming more active in coinsurance versus yearly renewable term reinsurance—mortality risk. “One of the key drivers of term life insurance is the reserve costs, not the mortality,” DesRochers said. “The emphasis in the market moved from mortality to the capital needed to write the business. It’s changed the nature of the reinsurance market.”

XXX is still an issue in the life insurance market, and reinsurance has been one of the price drivers in the primary term market, DesRochers said.

While experts expected term rates to rise with the introduction of XXX and the resulting pressure to keep higher reserves, “rates hiccuped, but then continued to fall,” Laster said.



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“The sad reality is the reinsurance industry, in part, facilitated that,” O’Neill said. “There was a significant amount of reinsurance. The industry was wooed by the significant top line. I would say that was an error in judgment on the part of the industry.”

When mortality pricing in the reinsurance market reached unsustainable levels in the mid-2000s, reinsurers responded by raising rates.

“In early 2009, the underlying funding—whether it came from the capital markets, banks and letters of credit, or reinsurance—had become so expensive that the demand for reinsurance outstripped the supply, forcing many primary writers to raise term rates,” O’Neill said.

“Credit spreads, which are indicative of letter of credit costs, jumped from about 50 basis points over a U.S. Treasury bond in 2007 to 500 to 600 basis points above in late 2008/early 2009. It’s since fallen to about 200 basis points earlier this year,” Laster said.

“We’re a lot better off than we were 15 months ago, but it’s still quite a bit more expensive than in 2007,” Laster said in May.

Those credit spreads impact both life insurers and reinsurers, but reinsurers “aren’t interested in being a cheap form of funding,” O’Neill said. “There is more demand, and we are certainly willing to write coinsurance at a reasonable price—given interest rates and funding costs—but I do not think there’s going to be a wholesale shift to cheap reinsurance capacity.”

The net effect of primary writers needing more reinsurance and the higher cost of providing that reinsurance has resulted in a tightening of supply. “Reinsurance prices have risen,” Laster said. “There’s less supply, and more demand. That creates pressure for more expensive reinsurance pricing.”

But, primary pricing has probably stabilized, according to O’Neill.

“I don’t think primary companies are making the margins they should be making on term life. It’s still one of the lowest margin products out there. But we’ve already seen one of the largest term writers decrease prices this year. The market should be relatively stable unless the euro situation spills over and creates further credit issues in the United States,” O’Neill said.

And, it will take awhile for the securitization market to mend, commented Laster.

“With life companies seeking capital relief and affordable solutions from securitization largely unavailable, direct writers have limited options outside of reinsurance,” A.M. Best Co. noted in a Feb. 8, 2010 special report. “Reinsurers are more selective in the risks they choose to underwrite, and pricing remains firm.”

But, “the competitive landscape in U.S. life reinsurance is now stable after earlier consolidation activity,” Best said. ■



ReFocus2011
SEE THE FUTURE FIRST

ReCap

By Mel Young & Craig Baldwin



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Craig Baldwin, managing director – Group Cessions, Transamerica Re in Charlotte, NC. He can be contacted at Craig.Baldwin@aegon.com.

Preceded by a charity golf tournament for the benefit of The Actuarial Foundation, Feb. 28, 2010 marked the beginning of the fourth successful ReFocus “See the Future First” conference at the Ritz-Carlton in Lake Las Vegas, Nev.

The 2010 conference increased its attendance from previous years and was attended by over 300 senior executives working for or servicing the insurance and reinsurance industries. Attendees enjoyed a program that centered its theme on the industry’s renewed resolve emerging from one of the worst financial crises ever experienced in the United States. The very interactive program was highlighted by panel discussions that included direct company CEOs: Mike Frazier, President & CEO Genworth Financial; Dennis Glass, President & CEO Lincoln Financial; and Mark Thresher, EVP & CFO Nationwide Financial Services; and the international heads of four of the leading reinsurance organizations: Christian Mumenthaler, Member, Group Management Board, Swiss Re; Dr. Norbert Pyhel, Deputy CEO, SCOR Global Life; Dr. Joachim Wenning, Member of the Board of Management, Munich Re; and Wolf Becke, President, Life & Health Division, Hannover Life Re. The conference was moderated throughout by Bill Press, host of The Bill Press Show on Sirius Satellite Radio.

ReFocus provided ample time for quality networking, as this was an overwhelming theme in feedback from previous ReFocus conferences, and included breakout session topics that were cutting edge while germane to the theme of the meeting.

Keynote speaker, author, historian, economist and demographer, Neil Howe intrigued the audience with the management challenges associated with the unique characteristics and motivations of the various generations now employed by America’s industry. Similarly, Donald Luskin, CIO of Trend Macrolytics LLC, Tuesday’s luncheon speaker questioned whether the financial market’s dramatic rebound from its low in March of 2009 was real or an anomaly that would reverse itself in short order.

ReFocus continues to be THE go-to event for life reinsurance that promises to grow in attendance as more and more of the insurance industry’s senior executives become aware of the value of this conference. Mark your calendars for next year’s event, scheduled to take place at the Four Seasons hotel on the Las Vegas strip February 27 – March 2, 2011, ReFocus 2011 promises to add to its reputation of being the highlight of the convention season.

The conference organizers would like to thank the many sponsors who helped support this year’s conference and Golf Tournament, and the ReFocus 2010 Steering Committee who spent countless hours organizing the meeting: Co-Chairs Mel Young, RGA Re and Craig Baldwin, Transamerica Re. Steering Committee members: Marike Brady, ACLI; Ronald Klein, AIG & Chair SOA Reinsurance Section Council; James Miles, SOA; Jay Semla, SOA; and Victoria Smith, ACLI. For more information on ReFocus go to www.refocusconference.com. ■

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Group Life Insurance: From the 2009 JHA Group Life Market Survey

By Robert Hardin and Achim Dauser



Robert "Bob" Hardin, FSA, is VP, group actuary with JHA - A division of Gen Re LifeHealth, Stamford, CT. Bob can be contacted at RHardin@GenRe.com.

In May, 2010, JHA¹ published the results of the 2009 Group Life Market Survey. This annual benchmark survey provides detailed analyses of sales and market growth, across Traditional/Basic and Voluntary products. The study is in its eighth year and covers new sales and in-force premium, volume, lives, and cases for Total Group Term Life (Basic and Voluntary), Voluntary Group Term Life (VGTL)², and Accidental Death and Dismemberment (AD&D).

Thirty-three companies participated in this study, representing over \$21.2 billion in Group Life and AD&D premium and thus the lion's share of the U.S. market.

MARKET IN-FORCE GROWTH

Participating companies reported \$19.5 billion in Total Group Term Life, which remained level from 2008 to 2009. VGTL in-force premium maintained positive growth year over year, although the pace slowed to a rate of 5 percent for 2009 (Exhibit A). Overall perfor-

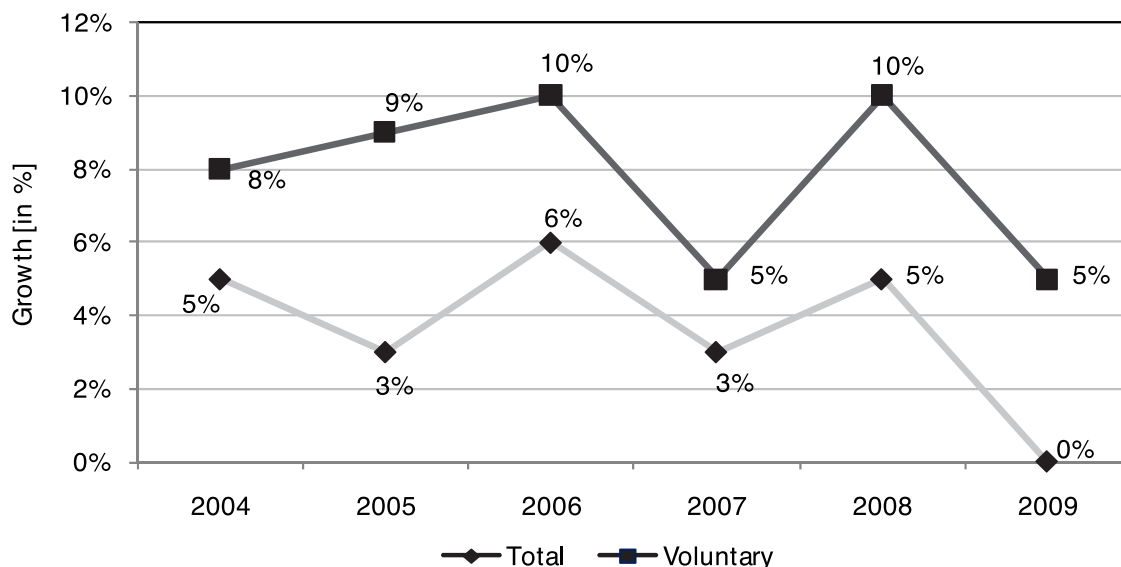
mance for Group Life carriers was clearly impacted by the economic environment, resulting in the lowest growth rate recorded since this study's inception. The combination of reduction in employment, business closings, and reduction in salaries did not allow the industry to achieve a more favorable result than a no-growth year.

MARKET SALES GROWTH

New Sales showed downturns as well with Total Group Life sales premium experiencing the largest decline (-5 percent) on record. VGTL sales continued to positively impact Total Life growth despite economic difficulties, as Voluntary sales premium increased 9 percent over 2008. (Exhibit B)

Given the strong increase in Voluntary new sales, VGTL premium represents a larger percentage of Total Life sales at 31 percent. Since 2004 this share has more than doubled.

Exhibit A. Total and Voluntary Group Term Life In-Force Premium Changes Over Time³

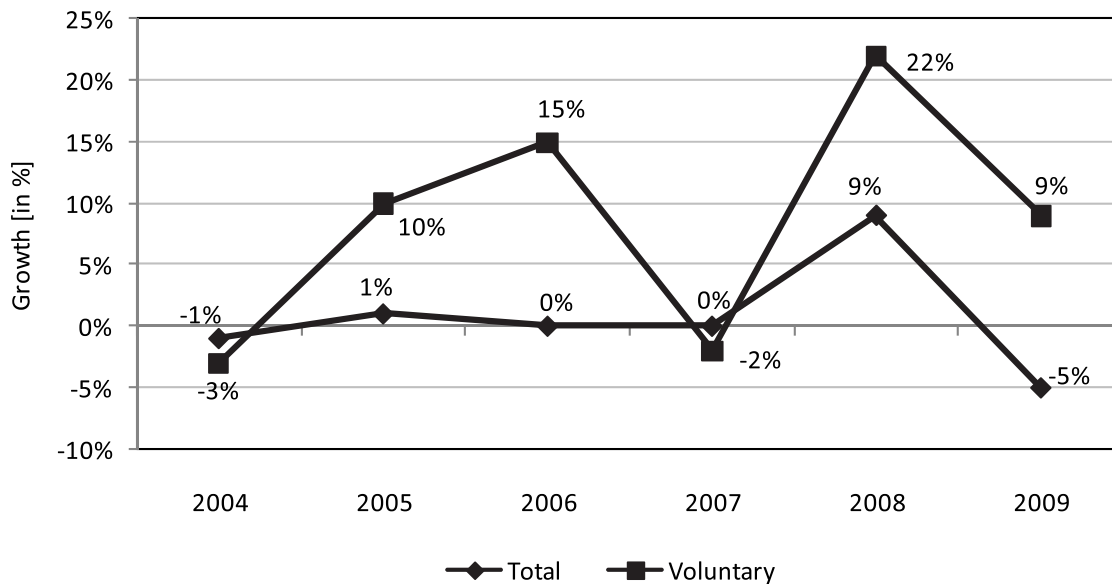


¹ JHA is the disability and group life reinsurance, risk management and research division of General Re Life Corporation (GRL). GRL's parent company, General Reinsurance is a member of the Berkshire Hathaway family of companies.

² VGTL is defined as 100 percent employee paid stand-alone coverage sold on a group platform; for more definitions on terms used in this article please refer to JHA's Market Survey Summary Report on www.jhaweb.com.

³ Growth rates are calculated including only those companies providing comparable data for 2008 and 2009.

⁴ 2009 growth rates include New Business on Existing Cases (NBOC). Growth rates are calculated including only those companies providing comparable data for 2008 and 2009.

Exhibit B. Total and Voluntary Group Term Life Sales Premium Growth Rates Over Time⁴

GROWTH COMPONENTS GROUP TERM LIFE

The growth in in-force business in 2009 reflected the impact of current economic factors that have been resonating with employers over the last couple of years. The need to cut costs and streamline expenses seemingly outweighed the value of Group Life coverage for many employers and employees as in-force cases fell nearly 4 percent from the previous year, and insured lives were down close to 2 percent.

Faced with increased competition and rate pressure, carriers appear to be leveraging richer benefits to offset losses in new sales and in force. The average face amounts on new Total Life business increased in 2009 to an average of \$74,111. Average face amounts for new sales were again higher than in force, repeating the results seen in 2008. Although premium per life on new sales remained relatively static, the average premium per life on in-force policies continues to be higher than new sales being added. For Total in force, the average premium per life increased 2 percent to \$190, while new sales averaged \$156.

The increase in face amount of about 3 percent and the lower increase in average premium suggest a slight reduction in rates. Total Life in force monthly premium rates decreased in 2009 by about 1 percent to \$0.22 per \$1,000 of coverage. For new sales however, a strong

increase in face amount of 9 percent in combination with a reduction in average premium is a clear evidence of the increasingly competitive environment. New sales premium rates declined drastically by more than 9 percent and remained significantly below the average in-force premium rate at \$0.18.

It is striking that the cause of low or negative growth did not appear to be an evenly distributed reduction in workforce or a reduction in benefits. It was rather a reduction in employer groups as a result of dropped coverage due to budget limitations or even insolvency.

Voluntary Life has experienced healthy growth in both new sales and in force albeit at a lower rate than in 2008. Other than for Total Group Term Life the number of employer groups went up and rate level remained stable at a monthly rate of \$0.23 per \$1,000 for in-force business and \$0.22 for new business.⁵ Employer groups in the voluntary market tend to be smaller and insured amounts tend to be higher than in the employer-paid market segment.

“CHURNING” BUSINESS

The relationship between sales and change in in-force business is very different for Group Life insurance compared to Individual Life insurance. From the Group Insurance point of view, the result of this difference is that the in-force metric is more important than the sales metric.

CONTINUED ON **PAGE 16**



Since most employers who are willing to offer Group Life insurance already do so, a very high percentage of sales of a group insurance policy results in the lapse of an essentially identical group policy. That is, almost all group sales are replacement sales and there are very few lapses that are not associated with new sales. This is very unlike Individual Life insurance.

To quantify the impact of this marketing characteristic, the difference between new sales and the change in in-force business can be measured. Under the assumptions described above, the difference between sales and in-force growth becomes an indicator of the proportion of new sales that can be attributed to takeover business.

Market “churn” for 2009 experienced an upheaval as more cases lapsed this year than new sales were added to the industry. This again implies that more employers are dropping coverage entirely rather than simply

switching to other carriers. Looking at only those participants that were able to provide both the number of new cases sold and the number of cases lapsed, 56 percent of companies reported lapsing more cases than they sold in 2009, up from 38 percent last year.

ACCIDENTAL DEATH & DISMEMBERMENT (AD&D)

Total in-force premium was down 2 percent in 2009 with volume showing a slight increase of approximately 1 percent. Monthly premium rate decreased 2 percent to an average of \$0.026.⁶ Total AD&D new sales case counts and lives followed a similar downward trend as seen in Total Life sales. New sales premium held static year over year while the number of employers and employees purchasing coverage in 2009 fell substantially.

Exhibit C: Percentage of New Sales Premium by Product Type

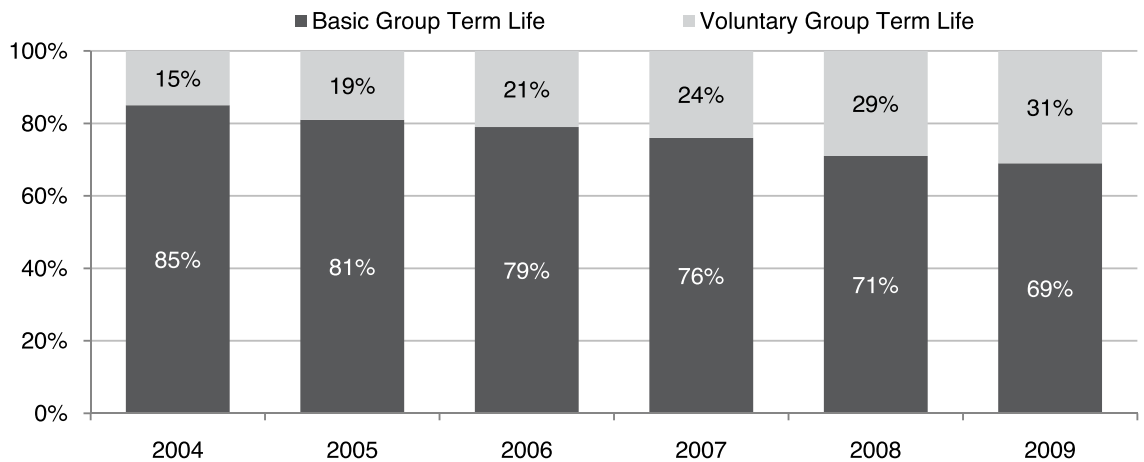


Exhibit D: Growth Components for Total Group Term Life: Changes 2009 vs. 2008

	Sales	In Force
Average Lives per case	162 (+13%)	174 (+2%)
Average Face Amount	\$74,111 (+9%)	\$71,003 (+3%)
Average Premium Per Life	\$156 (-1%)	\$190 (+2%)

Voluntary AD&D showed the greatest volatility and strongest growth for 2009. This is most readily apparent in volume and cases. The monthly rate of \$0.0336 per \$1,000 for in-force business remained well above the rate level for Total Group Term AD&D.

IN SUMMARY

With flat to negative growth in sales and in-force premium across both lines of business, Group Life carriers are being challenged by pricing pressures, declines in the number of covered employees, and employers striving to reduce costs.

Both the overall growth rate for in-force premium in 2009 and new sales premium reflected the impact of current economic factors with the steepest decline seen since the inception of this survey. Voluntary Life business continues to be an affirming factor on the industry in general with both in force and new sales premium growing at a respectable rate given the impact of the Great Recession.

It appears, however, that the impact to new sales premium was supplemented by a continued increase in aver-

Exhibit E: Growth Components for Voluntary Group Term Life: Changes 2009 vs. 2008

	Sales	In Force
Average Lives per case	130 (+2%)	128 (-7%)
Average Face Amount	\$84,125 (+7%)	\$79,021 (+7%)
Average Premium Per Life	\$221 (+7%)	\$246 (+8%)

age face amounts, as opposed to growth in the number of employers or employees purchasing coverage.

Although Basic Term Life still accounts for a majority of the Total Group Term Life business, Voluntary sales continue to positively impact Total Life growth. Despite economic difficulties, Voluntary Life sales grew at a respectable rate, which corroborates results from another JHA survey indicating that a majority of carriers, who were currently active in the Voluntary market, were planning to place more emphasis on selling Voluntary products.⁷

Anecdotally, carriers reported that pricing pressures remain a challenge, and it is becoming increasingly evident that employers will continue to look for ways to reduce their costs. It will be interesting to see if the Group Life Market will manage to recapture the insured cases and lives that exited the market in 2009. The more favorable economic environment in 2010 with rising employment and salaries should positively contribute to meeting this challenge. ■



Achim Dauser, Ph.D., Actuary (DAV), MAAA, is vice president, Group Life Reinsurance with JHA - A division of Gen Re LifeHealth, a Berkshire Hathaway Company. Achim can be contacted at dauser@genre.com.

Exhibit F: Growth Components for Total Group Term AD&D: Changes 2009 vs. 2008

	Sales	In Force
Average Lives per case	137 (+9%)	129 (-2%)
Average Face Amount	\$65,449 (-9%)	\$69,630 (+5%)
Average Premium Per Life	\$28 (+9%)	\$26 (+4%)

Exhibit G: Growth Components for Voluntary Group Term AD&D: Changes 2009 vs. 2008

	Sales	In Force
Average Lives per case	158 (-10%)	343 (-9%)
Average Face Amount	\$110,999 (+13%)	\$96,409 (+19%)
Average Premium Per Life	\$40 (+5%)	\$57 (+2%)

⁵ Some companies provided premium per life but not face amount. Therefore the monthly rate cannot be precisely derived from the market average premium per life and face amount as shown in Exhibit E.

⁶ Some companies provided premium per life but not face amount. Therefore the monthly rate cannot be precisely derived from the market average premium per life and face amount as shown in Exhibit F and G.

⁷ Reference is made to JHA's annual Rate and Risk Management Survey, which covers topics on rating, underwriting, pricing, claims and catastrophe management, market and products, and recent trends in the Group Life Insurance Industry

Financial Underwriting, Why Bother?

By Ross A. Morton



With 40 years of insurance industry experience, Ross Morton has evolved into a recognized mentor, advisor and reinsurer. From 1994 to 2009 Ross has been used on various assignments around the world by RGA, and recently joined the Advisory Board for Logiq3. Ross can be found online at www.rossmorton.com

When an underwriting historian looks at the subject of financial underwriting, they quickly come to the realization that the conflict/confusion/befuddlement in the different perspectives between underwriter and advisor has existed since days when we could not agree on the value of the inventor of the wheel as a key man! History being so out of vogue today I will skip the horse and buggy, the two great wars, the moon landing and the Cold War so I can jump to 1956. Reading the Transactions of the Society of Actuaries 1956 Volume 8 Number 21 the conclusion by many at the time was “large case mortality was excellent” but still there was conversation about financial underwriting interspersed with concerns of too much accidental death benefit riders, pressure on non-medical insurance and the creeping concern of antiselection on cheap term products as they entered the product arsenal. Typical concerns of legendary actuaries who ran underwriting and where all real decision making was left to medical doctors. The lay underwriter was yet to be hatched although in the 1950s there emerged an experiment to try using trained clerks to make risk selection decisions!

By 1960 even greater concern arose amongst actuaries for the importance of doing some rudimentary financial underwriting. Fun reading is the transactions of the Society of Actuaries 1960 Volume 12 Number 34. Phrases like “policies for large amounts” were becoming common place. Reflections on the 1953-1958 mortality study showed mortality on cheap term insurance was 122 percent versus the mortality of 89 percent on permanent insurance. Fear of cheap term on young people in particular was eating away at the confidence of actuaries throughout North America. Alton Morton, the great guru of financial underwriting of the time, as well as other iconic actuaries had numerous company studies of varying merit to review. One such study of the time showed early mortality results on young people with cheap term policies exhibited early mortality of 170 percent. Alto would roll over in his grave if he saw the pricing models of 2010!

In 1973 wise men through the Society of Actuaries took a modern view of underwriting the large case (some pro-

gressives now believed big was any case where in force and applied for was \$250,000). In that study, “Financial Underwriting For Individual Life Insurance” by Baskin and Marshall, transactions pages 509-571 (Transactions of SOA 1973 Volume 25 Part 1 Number 73), the conclusions were both applauded and questioned. A comment like the “spectacular large claims” was enough to scare everyone into action as some financial underwriting rules needed to be constructed. Thus we ended up with the 20-, 25- or 35-percent of income rule which stated how much of yearly income could be spent on life insurance (note: it was often graded so an income of \$4,000 to \$6,000 used 5 percent and an income of \$15,000 used 20 percent). Aside from the poorly conceived percentage guides we had guides that reflected income and age bands (i.e., the top salary of \$100,000 justified an insurance amount of \$584,000 for someone between 45 and 47 years of age). All these rules grew even in the face of the last overall mortality results of 1970 being considered good.

Putting the paper into perspective and highlighting how inflation and realities have made the modern underwriter cynical of the findings, the reader has to understand three fundamental observations: they were still very big on using 20- to 25-percent of total income as the maximum amount spent on life insurance; a large case was defined as an amount of \$100,000 or more; and they did not include the very large claims as they felt it would distort the results unfairly! It is hard to comprehend allowing someone to use 25 percent of income to buy life insurance today as a guide—think of how much term could be bought for that amount of premium. Even allowing for inflation, \$100,000 seems too low an amount to use for a case to be considered “large”—a senior life underwriter in 1973 was earning over \$8,000 per year. Why would they not include large claims since that is what financial underwriting is all about—would ignoring the large early claims really make the study too narrow and casts doubt on its conclusions?

The SOA has to my knowledge always been fair and published the detractors’ and sceptics’ opinions which to me balanced the papers conclusions and thus made

all 60 pages worth the read. The detractors' opinions could be summarized in three points. First the study was too focused on numbers (wow, for actuaries to say this was profound) and not enough on practicalities of underwriting. Secondly there was too little emphasis on "insurable interest" and "does it make sense" (even actuaries quoted Charlie Will's famous phrase). Lastly, and Webster most eloquently stated it, "while financial information may be available, nearly always it is complicated." Great, a senior actuary admitting numbers can both confuse and distort by both their omission and inclusion.

Before I leave the history, there are two more wise and insightful actuaries who need quoting from those same pages of the transactions. Woodman stated the following in referencing papers that recommended "multiple tables" for use in arriving at how much insurance is allowed: "I caution all actuaries and underwriters to recognize that this is merely a reference point." Hale's words could be repeated today and probably in the next century as well: "... the chronic problem of trying to obtain adequate documentation ... The more adamant the refusal to provide documentation, the less likely the existence of an adequate financial basis."

Since the 1970s underwriters have leaned heavily on the income multiple tables as the answer to "how much is enough life insurance." The tables were constructed at a point in time using, one hopes, the best estimates of future inflation rates, interest rates and things like the cost of raising and educating offspring. All this was to have nice simple tables that according to one's age reflected how much life insurance was needed to protect the lifestyle of one's family at the death of the breadwinner (later to become the breadwinners, plural as dual incomes became the normal). For a 39-year-old in the 1970s, the underwriter used 12 as the multiple and steadfastly refused to issue more for no other reason than the table made them do it. For the same 39-year-old in the 1980s the underwriter used 15 as inflation took its toll on incomes. Now in 2009, we have what marketing gurus in companies call "progressive" underwriters in aggressive companies flexing their financial underwriting acumen and going to 30 times income as a number

they feel comfortable with to prevent "over insurance." It is not the underwriters who are picking these numbers but rather the efficiency experts who press for simple rules in processing. The 30 times rule dictated from on high is just another "rule" or "process" underwriters must follow to keep the peace.

Not only have we leapt to a 30 multiple, but in some companies the guide heard repeatedly is, "no financial underwriting needed or done until the amount is for more than \$1,000,000 (U.S. or Canadian)." The reaction of the advisor is to applaud this innovation in risk selection and hope it is forerunner of many more liberalizations. The reaction of the auditing underwriter is, "OK, but 'no financial underwriting' does not mean the underwriter forgets that there has to be insurable interest regardless of the amount." Regrettably the audits are turning up cases where there is no rhyme or reason why owner X is insuring person Y and the beneficiary is some unexplained numbered company in a country with no vowels in its name. OK, forget the amount since it is only \$999,000, but make sure you see the insurable interest.

It has been a long time (some would argue too long while others would say not long enough) since the life insurance industry had a rash of large and/or questionable claims where either the amount made no sense or the beneficiary turns out to be totally unrelated to the deceased when viewed by the claim's adjudicator (a master of hindsight underwriting). Perhaps what we need is a string of those "biggies" and "dubious" cases torn apart by countless hindsight underwriters where the finger points straight at the underwriter for being too lackadaisical in financial underwriting. We then would have some very naive underwriters struggling to defend publicly their irrational attempts at streamlining financial underwriting. On the other hand what may emerge is real life examples for underwriting leadership to vociferously wrestle back control of procedures and guidelines from the process and marketing gnomes. Of course I am just trying to prod underwriters into not forgoing common sense in the search for expediency and cost savings, regardless of who initiates the changes. If you introduce a new "guide" make sure its phrasing is

CONTINUED ON **PAGE 20**

// SINCE THE 1970'S UNDERWRITERS HAVE LEANED HEAVILY ON THE INCOME MULTIPLE TABLES AS THE ANSWER TO 'HOW MUCH IS ENOUGH LIFE INSURANCE.' //

very understandable by the most junior of underwriters. Leave nothing to chance in how the “guide” is used. Insurable interest cannot be dismissed since it is “the law” so to speak. The underwriter has an absolute obligation to ensure it exists at the time of the policy issue. Although many times challenged, some historical precedence remains the foundation for the need for insurable interest at time of issue:

- The Gambling Act of 1774 (English Parliament, 14 Geo. III, ch. 48) which states words to the effect that it is gambling if the owner of the policy has no interest in the insured.
- Later in the famous case in the USA of *Grigsby v. Russell* 222 U.S. 149 (1911) it was concluded that you cannot insure anyone you want and “the very meaning of insurable interest is an interest in having the life continue ...”
- Again in *Grigsby v. Russell* there was the point made that “if a person has a valid policy on his/her own life he/she can transfer it to another person whom he/she ... is not afraid to trust.”

Underwriters would be wise to never lose sight of insurable interest and its definition. There are numerous definitions, but the more one searches through the myriad of words within the definitions the more any one or two will suffice for the underwriter. For example:

- “Princeton WordNet”: states Insurable interest is an interest in a person or thing that will support the issuance of an insurance policy; an interest in the survival of the insured or in the preservation of the thing that is insured.

In an era of investor-owned life insurance and premium financing it gets far more exciting in the underwriting department. We have some pompous insurers touting the fact that they do not condone or allow any such sales concept to be used with their product. At the same time, as an underwriter recently conveyed to me, it may be so for the public relations angle but in the trenches

of underwriting we are charged with getting any premium on the book while turning a blind eye to what we surmise the policies eventual ownership will be. At the other end of the spectrum, the industry has seen the introduction of questions to help the underwriter conclude that there is indeed insurable interest now and in the near future (as best any one could). Those questions include: what is the intent of the policy, how and who will pay the premiums, has anyone prompted you to purchase life insurance? But with a two-year contestable period our protection has a shorter life span than the patience of the ever clever investors.

Not sure what the answer is but the question intrigues me. Were any underwriters involved in the “Dead Peasant Life Insurance”? DPLI follows the long lineage of acronyms such as STOLI, BOLI, COLI, etc. DPLI of course is in jest but is used to reflect the supposed \$120 billion of life insurance issued on perhaps unwitting employees taken out by corporations producing sizable tax breaks for many a company. Did the insured agree to the policy? Was there indeed insurable interest? Was there mandatory surrender of the policy on the employee’s termination of employment? I cannot find an underwriter who has the answers so I would like to think that these clever schemes, that had the allure of revenue, never had to pass the risk selection test.

Getting back to what underwriters can control, since dwelling on the surmised lack of full underwriting on the specialty products is futile, the underwriter faces the ever asked question “What is he/she worth?” Putting a value on a life is really tough since we cannot predict the future with certainty nor ever come to a real irrefutable value of a life, be it for personal or business protection. I wrote many years ago that the advisor and underwriter were singing (underwriting financially) from different hymn books (company produced or condoned guides)—and remains a must read article. I do not think either hymn book is right but is it too much to ask a company to insist both advisor and underwriter use the same one.

Leaping into tall buildings where insurers reside we find the infamous “income multiple tables” that the underwriter relies upon as a guide to determine just

how much insurance is enough. They are simple tables with age bands and they attached multiple. Not happy with one company's table I tried a second. The outcomes are similar:

- Company A at age 62 uses five as the multiple guide and thus “enough” insurance is suggested as (five*\$195,000)-\$500,000 (the in force) equalling \$475,000 of new insurance.
- Company B at age 62 is more aggressive in its multiple guide and uses five to seven and thus using seven the suggested is (seven*\$195,000)-\$500,000 equalling \$865,000 of new insurance.

What we have here is a failure not to communicate but rather agree within our underwriting and distribution departments what is the ONE method for calculating “enough.”

To be fair and to show the world is edging closer to sanity (in calculating “enough” but not necessarily in other areas of financial services) there are a couple of companies that now use 30 as a multiple at the key mid ages. I can now say I have lived through in this age band the multiples 12, 15, 19, 21, 23 and 30! Middle aged applicants are obviously worth more now than 40 years ago.

So why bother with financial underwriting? The answer is the legislation that states there must be an insurable interest at the time of issue. Failing to fulfill that mandate could impale our companies on the stake of litigation for allowing a stranger to take out (perhaps unbeknownst) insurance on anyone they feel like or to turn insurance into an act of gambling. So the underwriter pays strict attention to the owner, insured and beneficiary to make sure insurable interest exists. Then the attention is shifted to what is “enough” insurance and that is where we have to harness our wanting to fall back to the safety of “multiple tables.” In my 40 years I have never seen a case at claim time where the claims adjudicator or senior executive chastised the underwriter for issuing 27 times when the guide said 22! What you see is that the insurable interest was not there or there were suspicious signs surrounding any of the three parties.

From the unexplained numbered company for which no information exists to the sale of insurance on one partner out of four without rational reasons for such. So yes, bother, but focus more on the principles and less on the sanctuary of the tables.

The advisor could do more as well. Open up to the underwriter on how you sold the policy with details that put them on your side before they even read the application or some third parties notes on the applicant. Most seasoned underwriters would agree that a well constructed story (fact not fiction) surrounding how the sale was made, what the funds are for, who is to receive the funds and is the proposed insured a nice and known person, go a long way to making an underwriter say yes.

Lastly the underwriter would be wise to concentrate on the “who is the advisor,” and who, if any, lawyer and or accountant prepared the needs analysis. If the proposed insured and his or her advisor have sought accounting and legal advice and then concluded that \$x,xxx,xxx is the amount of insurance needed (their opinion of “enough”), who is the underwriter to say the amount is too much because their guides say there is another number for “enough”?

Written about for at least seven decades. Argued over for the same seven decades. Solutions found—zero. Time spent on debate—immeasurable. Cost to the industry—priceless. Who will finally make it all disappear from the list of issues? Perhaps an underwriter! ■

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Measuring Actual to Expected Accuracy for Life Settlement Underwriting

By A. Hasan Qureshi and Michael V. Fasano

The secondary market for life insurance policies, otherwise known as the life settlement market, is a relatively new industry. Although its roots date back to the AIDS related viatical transactions of the 1980s and 1990s, the life settlement market as we know it today is less than 10 years old. Its participants, those who put their life insurance policies up for sale, are typically over age 65 (average age of approximately 77 years) and have above average income levels. (The average face amount of a life settled policy is in excess of \$1 million.)

The life settlement market provides an interesting study for older age mortality. Our population continues to age and life insurers have an increased interest in senior insurance products. However, life insurance mortality experience at the older ages is typically from seasoned policies that initially were underwritten at standard or near-standard rates. The life settlement market, on the other hand, provides select underwriting experience for the over-65 market for both standard and impaired risks.

In order to fully tap the mortality information contained in this market segment, we need to be able to measure actual-to-expected mortality experience in a meaningful way, and to present results by impairment category, by durational band, by mortality rating, and by other differentiating variables, as well as in aggregate. The measurement of actual-to-expected accuracy from life settlement experience presents some unique challenges that we will discuss in this paper.

METHODOLOGY

Although life and reinsurance companies conduct actual-to-expected studies on a regular basis, their methodology, which derives expected deaths from the mortality rates assumed in developing premium rates, would not be relevant for life settlement business. Therefore, we have not considered a traditional life insurer's methodology as an option. Rather, we have considered two other possible methodologies:

1. A point estimate methodology, and
2. A mortality distribution methodology.

POINT ESTIMATE METHODOLOGY

The point estimate methodology is a straightforward way of measuring accuracy. It entails charting each predicted date of death, comparing those predictions to actual dates of death, measuring the differences and then taking a geometric average of those differences. This methodology is helpful on a retrospective basis. However, it is less useful in the early durations of portfolio experience, as the mortality experience will be weighted disproportionately with premature deaths from longer life expectancy predictions. By way of illustration, the average life expectancy prediction for Fasano Associates is in the range of 13 years. We have been estimating life expectancies for eight years, since 2001. However, when you take into account the fact that the life settlement industry did not develop critical mass until 2003 and that it has experienced significant growth since then, the volume weighted length of time we have been estimating life expectancies is probably somewhere between three and four years. Thus, use of a point estimate methodology would produce biased results, with the early maturities of life expectancies of four years and longer creating the appearance of greater conservatism (longer predicted than actual life expectancies) than measurement over the full mortality distribution would produce.

MORTALITY DISTRIBUTION METHODOLOGY

The mortality distribution methodology is a useful approach to use in the early and intermediate portfolio durations. It entails taking each life expectancy prediction, solving for the mortality rating that would produce that life expectancy, taking the mortality distribution associated with that mortality rating, and then aggregating the mortality distributions of all life expectancy predictions to generate an aggregate mortality distribution for the entire portfolio. Actual deaths are then compared with expected deaths as per the aggregate



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mortality distribution, to produce the actual-to-expected ratio. Results will often be shown in “claims triangle” format to facilitate presentation of cumulative actual-to-expected experience, as well as A to E by calendar year, by year of underwriting, or by any combination of consecutive years.

ANALYTIC ISSUES

There are a number of analytic issues that must be considered in using a Mortality Distribution methodology to evaluate actual-to-expected accuracy: 1. Anti-Selection; 2. IBNR; and 3. Choice of the proper Mortality Table.

ANTI-SELECTION

Anti-selection in the life settlement market is different than in the life insurance market. Whereas a life insurance applicant might suffer from selective memory and forget to disclose certain impairments, on the life settlement side, the applicant is incented to disclose every possible impairment he or she has, as the worse the applicant’s prognosis, the shorter the life expectancy

and the greater the sales price. It is much easier to conceal adverse health information from a life insurer than it is to selectively disclose only unfavorable information to the life settlement investor.

However, the pricing dynamics of the life settlement market facilitate a different kind of anti-selection that is a function of imperfect information in the bidding process. While it is not unusual for brokers to shop different life insurance companies for the best offer on a new policy, the life insurance database is extensive and life insurance underwriting is generally consistent. Life settlement data, on the other hand, is still developing, and life settlement underwriters have been less consistent than life underwriters, often with significant differences in life expectancies. The brokers who place life settlement proposals with investors have taken advantages of these spreads, and have often presented the lowest of the life expectancies available. Even if two life settlement underwriters, on average, produce the same life expectancies, the intermediaries will often present the underwriter’s life expectancy estimates when they are shorter than the competition.

Thus the actual to expected experience of a closed portfolio of life settlements will usually be lower than the underwriter’s experience, and this pricing anti-selection needs to be taken into account.

IBNR

Incurred but not reported death claims present more of a challenge in measuring the accuracy of life settlement underwriters than for life insurance underwriters. The life insurance underwriting function is typically inter-

Known Deaths after Development					
Yr of U/W	2004	2005	2006	2007	2008
2004	72.13	267.27	512.48	729.27	1,005.55
2005		133.10	390.74	693.11	1,029.19
2006			122.04	374.20	699.51
2007				141.48	481.15
2008					202.12
Total	72.13	400.38	1,025.27	1,938.07	3,417.52

Expected Deaths through end of Year

Yr of U/W	2004	2005	2006	2007	2008
2004	73.26	261.14	518.90	841.39	1,204.20
2005		87.29	329.38	676.36	1,110.76
2006			97.28	347.87	699.80
2007				112.16	404.85
2008					124.15
Total	73.26	348.43	945.56	1,977.77	3,543.75

nal, and life companies learn of an insured's death when a death claim is filed or when the insured stops paying premiums. On the other hand, life settlement underwriters are typically independent contractors, and have no way of knowing which estimates they provide result in a closed sale, let alone which ones result in death.

Therefore, the life settlement underwriter has to develop its actual death statistics from public sources of information, such as the Social Security Administration Death Master File. Whereas the Social Security Administration's Master Beneficiary File is used on a day-to-day basis in managing its payment programs, the Master Death File is a statutory requirement of the Agency, and is not used in carrying out its operating programs. As a result, they devote less resources to maintaining the death master file and, as a result, there are a significant number of deaths that either don't make it into the Master Death File or that do so without a social security number, or with an incorrect SSN. (See Hill, Mark E. and Rosenwaike, Ira, "The Social Security Administrations Death Master File: The Completeness of Death Reporting at Older Ages." Social Security Bulletin, Vol. 64 No. 1 2001/2002.)

In addition to the incompleteness of the SSA Master Death File, there are inaccuracies in the commercial databases used for social security verification, such as Veris and Experian, in that incorrect social security numbers that are reported with a commercial transaction often find their way into the database. (For example, if a loan issued to a married couple is applied for based on the husband's social security number, that social security number will often get entered in the database as belonging to the wife.) These errors also need to be accounted for in the development of life settlement IBNR assumptions.

MORTALITY TABLES

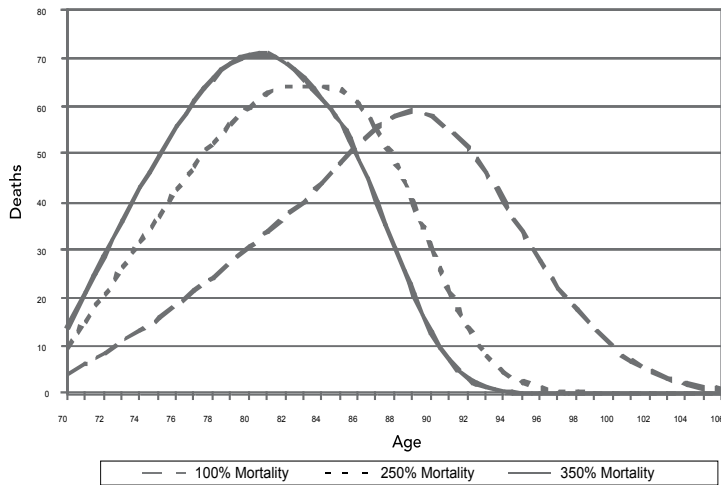
A key element in the actual-to-expected analysis is the choice of the appropriate mortality table. If our suggested mortality distribution methodology is used, the specific table used is not as important as using a table with a reasonable slope, as solving for the mortality rating has the effect of normalizing the table used. For example: Underwriter A generates a life expectancy estimate of 7.5 years by applying a mortality rating of 100 percent to a table that reflects a relatively large percentage of deaths in the first 15 years of the table, while

A/E Ratios

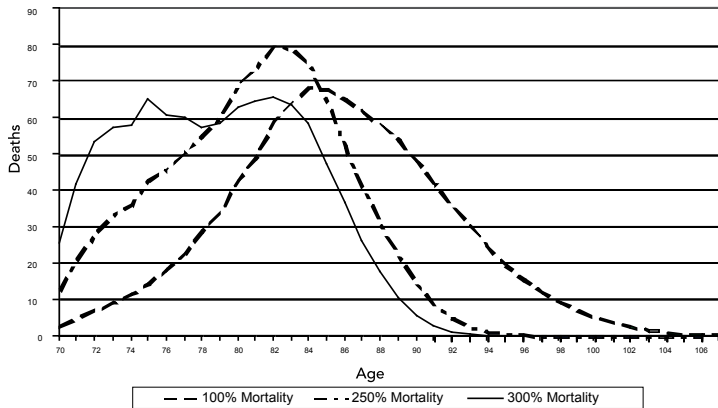
Yr of U/W	2004	2005	2006	2007	2008
2004	98%	102%	99%	87%	84%
2005		153%	119%	102%	93%
2006			125.5%	108%	100%
2007				126%	119%
2008					163%
Total	98%	115%	108%	98%	96%

CONTINUED ON PAGE 26

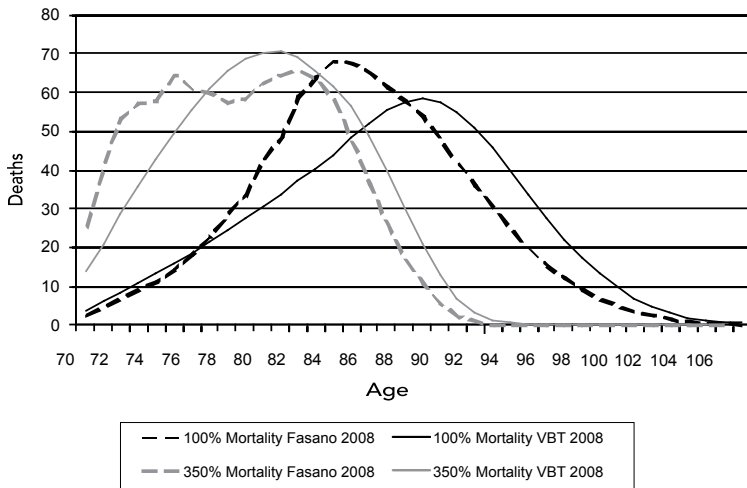
VBT 2008 Mortality Curves Impact of Increased Mortality Rates: No Change in slope of Mortality Curve



Fasano Associates 2008 Mortality Curves Impact of Increased Mortality Rates: Distinct Change in slope of Mortality Curve



Fasano 2008 & VBT 2008 Mortality Curve Comparison



Underwriter B generates the same life expectancy of 7.5 years by applying a mortality rating of 150 percent to a mortality table that reflects a smaller percentage of deaths in the first 15 years. The percentage of deaths that occur in earlier or later years is commonly called the “slope” of the mortality table. If, however, the slopes of the mortality tables used by Underwriters A and B are the same, then the pattern of mortality will be the same, as well, and the mortality rating corresponding to a given person’s life expectancy will be the same when substituting one mortality table for the other and solving for the mortality rating. Nevertheless, there are some important issues that need to be considered in choosing a mortality table:

1. Life settlement mortality demonstrates lower mortality in the early durations than is predicted by either 2001 or 2008 VBT Tables. This is the result of at least three dynamics. First of all, the VBT tables were not developed for pricing purposes. Second, the average face amount of life settled policies is greater than the average size of life policies sold in the primary market. This income effect would be expected to result in less early duration mortality. Third, there is a likely lapsation effect common to life insurance mortality data, in which healthy lives lapse policies, often to take advantage of more favorable terms with a new policy. In life settlement pools, there typically is no lapsation—so the healthy lives stay in the life settlement pool—resulting in lower mortality.
2. The shape of the mortality table changes as a function of the overall mortality rate. Our experience demonstrates a bowing out of the left side of the mortality curve, as the mortality rate, or level of impairment, increases. This pattern is not reflected in VBT 2001 or VBT 2008, as the underlying mortality data was based on standard, non-rated lives.

CONCLUSION

Measuring actual-to-expected accuracy for life settlement underwriting presents unique methodological and analytical challenges. As the experience data for this market continues to develop, we would expect there to be new findings of older age mortality that will be beneficial for both life insurance and life settlement companies. ■



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Individual Life Experience Committee Completes 2005-2007 Mortality Study

By Sharon Brody, Jeff Dukes, Barry Edenbaum, and Paul Langevin



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Mortality for Standard Individually Underwritten Life Insurance Between 2005 and 2007 Policy Anniversaries” is the latest report of the Individual Life Experience Committee (ILEC). The report and underlying data in pivot table format can be located at www.soa.org/research/individual-life/2005-2007-ind-life-report.aspx. The overall actual-to-expected ratio in the 25-year select period using the 2001 Valuation Basic Tables is 66.3 percent by face amount and 80.6 percent by policy count. The five-year change in select period mortality ratios is an average annual decrease of 3.3 percent on a common company basis. Overall results for companies with the highest actual-to-expected ratios range from about 155 percent to 200 percent of the results for companies with the lowest ratios. The purpose of this article is to briefly give further background on the ILEC and then provide additional highlights of this latest report.

The Individual Life Experience Committee (ILEC) is the Society of Actuaries committee responsible for publishing intercompany mortality studies. The committee consists of members generally with significant background at designing and analyzing mortality studies. Underwriters are also included as their input is valuable in providing insight on how trends in underwriting influence results. The group seeks diverse perspectives with representatives from direct writers, reinsurers and

consulting firms. The processing and collection of the data is handled by the MIB with oversight from the SOA and ILEC. Therefore, representatives from SOA and MIB participate in ILEC meetings and will guide and make decisions related to the data processing with cost and timing always as key considerations. The chairperson of the committee is Rick Bergstrom and Sharon Brody is the vice chairperson.

The report includes policy anniversary to policy anniversary mortality experience for 2005–2007, a two-year study period. Thirty-nine companies contributed data to the SOA for the 2005–2007 study period. The face amount exposure is about \$8.8 trillion and the number of deaths is 209,089 in the select period (policy years 1–25) in this two-year study. Consistent with prior reports, the study was performed on a gross basis without consideration of reinsurance. Although the study is designed to include only individually underwritten life insurance and excludes rated, converted, and other guaranteed or simplified issued business as indicated by the individual company data submissions, high mortality ratios, particularly at the lower face amount bands for recent issues, suggests that the data may include policies that are not fully underwritten. Policies in force under non-forfeiture provisions are also excluded.



The reader is cautioned in any direct application of results in the summary text or appendices as they are generally presented in a one dimensional view. Results can be influenced by the distributions within the one dimensional view, e.g., by face amounts, issue ages, and policy durations. The user is encouraged to use the detailed Excel pivot tables that accompany the study in order to examine multi-dimensional views relevant to the user.

The report has several enhancements from the prior study including details on company variability, five years of common company experience (three years only for preferred experience), product details, and introduction of the 2008 VBT as an expected basis in addition to the 2001 VBT and 75–80 basic tables.

SELECT PERIOD RESULTS

Overall, all company mortality experience in the 25-year select period is as follows:

Study Period			
	2002-04	2004-05	2005-07
By Face Amount	71.5%	67.4%	66.3%
By Policy	88.2%	82.7%	80.6%

Comparing common company vs. all company mortality experience (by amount), the individual study-year ratios are as follows:

Study Period					
	2002-03	2003-04	2004-05	2005-06	2006-07
All Companies	72.9%	70.3%	67.4%	66.9%	65.8%
Common Companies	73.9%	71.2%	68.9%	65.3%	64.7%

Of note, the five-year change in mortality ratios is 64.7percent/73.9 percent = 87.5 percent (for an average annual decrease of 3.3 percent) on a common company basis but only 65.8 percent/72.9 percent = 90.2 percent (for an average annual decrease of 2.5 percent) on the all company basis. Although the common com-

pany results can be viewed as a more reliable indicator of trends in overall reductions in mortality ratios as this measure removes the impact on experience of changes in the list of participating companies, other factors, such as changes in the relative contributions of the common companies and the mix of business in each year can influence results.

The A/E ratio (by amount) for females is generally slightly higher than for males and the average annual decrease is lower. (See table 1 on pg. 31)

Additionally, we see that the substantial overall reductions in mortality ratios vary considerably by the combination of gender and smoker status, with the largest reduction for male nonsmokers, and the smallest reduction for female nonsmokers.

The smoker status mortality ratios (by amount) as a percentage of the corresponding 2001 VBT are as follows. (see table 2 on pg. 31)

The A/Es by face amount are generally significantly lower than A/Es by policy count. This is primarily due to the impact of significantly poorer mortality experience of smaller size policies. These differences largely go away when comparing groups with a similar mix of business by face amount.

By issue age, A/E ratios (by amount) drop significantly after age 24, with age 25+ A/E ratios ranging from 61.5 percent – 83.2 percent with a spike in age 70 – 79 (72.2 percent excluding issue age band 70 – 79). At ages below 25, A/E ratios range from 68.6 percent – 100.5 percent.

Mortality ratios are 52.5 percent and 56.9 percent (by amount) in durations one and two respectively, increasing to the 68.8 percent – 70.7 percent range at durations three – five. Ratios drop to the 63.4 percent – 67.6 percent range at durations six – 20, and increase to 70.5 percent at select durations 21– 25.

The reader is encouraged to drill further into multi-dimensional views via manipulation of the pivot table to find other distinctive patterns. However, the reader is

CONTINUED ON PAGE 30

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		Table 1				
		2002-03	2003-04	2004-05	2005-06	2006-07
All Companies	Male	72.6%	69.5%	67.0%	66.1%	64.2%
	Female	73.8%	72.3%	68.6%	69.2%	70.2%
Common Companies	Male	73.9%	71.6%	67.9%	63.7%	62.7%
	Female	73.9%	70.4%	71.5%	69.7%	70.2%

also cautioned that large numbers of deaths are required for highly credible mortality statistics and as the data gets split into more dimensions, the resulting smaller cells have less credibility.

One example of a distinct pattern is for male policies below \$500,000, the A/E ratios (by amount) exhibit a “U” shape with respect to issue age with the lowest ratios in the very narrow range 66.1 percent – 68.7 percent at issue ages 30 – 59. As with the female-to-male relationship discussed above, the source of such relationships can often be traced to the distribution of business. In this instance, one contributing factor to the significantly higher A/E ratios at issue ages below 25 is the smaller size policies issued at these ages.

A second example, by sex and insurance plan, shows that although male ratios are lower than female ratios for all plans combined, the male ratios exceed the female ratios for Term and VUL plans. This suggests

that further analysis should be done to determine if product category is a consideration in setting mortality assumptions.

A third example, by gender and issue age, shows that although male ratios are moderately lower than female ratios for all issue ages combined, the male ratios are considerably higher than the female ratios at issue ages below 30, and considerably lower (especially for smokers) at issue ages 70+. If credible, these differences may be an important consideration in the setting of higher issue age premiums (assuming the 2001 VBT is the assumed mortality table basis).

The report contains some experience summaries by quintile for each of the eight combinations of gender, smoking status and policies with face amounts under \$100,000 and \$100,000 and over. For a given combination, companies were assigned to a quintile based on their overall actual-to-expected ratio for that gender/

		Table 2				
		2002-03	2003-04	2004-05	2005-06	2006-07
All Companies	Nonsmoker	69.9%	66.9%	64.3%	63.6%	63.1%
	Smoker	84.6%	85.4%	83.5%	83.0%	80.8%
	Unknown Status	84.9%	85.5%	83.1%	79.9%	77.2%
Common Companies	Nonsmoker	70.6%	67.3%	65.0%	62.0%	62.2%
	Smoker	86.4%	87.8%	87.2%	82.8%	79.4%
	Unknown Status	85.1%	85.3%	81.9%	77.1%	73.6%



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Table 3
A/E Ratios by Amount and Quintile
Durations 1-25 Only
(Expected Basis = 2001 VBT)

Face Amount	Gender	Smoking Status	A/E Ratio					All
			1	2	3	4	5	
<\$100k	Male	NS	63.3%	74.6%	78.5%	82.9%	105.8%	75.9%
		S	81.7%	88.7%	98.4%	107.4%	128.8%	91.9%
	Female	NS	55.1%	67.9%	72.3%	78.6%	90.4%	71.6%
		S	74.9%	87.0%	89.6%	104.4%	117.2%	89.0%
>=\$100k	Male	NS	48.1%	58.0%	62.4%	69.4%	76.2%	59.5%
		S	54.6%	69.0%	79.1%	84.9%	106.2%	76.6%
	Female	NS	47.1%	58.7%	64.4%	68.6%	87.0%	65.6%
		S	57.1%	72.7%	81.0%	87.0%	113.9%	78.4%

smoking status/size combination. Table 3 on pg. 32 summarizes the overall actual-to-expected ratios by quintile grouping of the companies for each of the eight combinations. The quintile is determined separately for male non-smokers for policies with face amounts less than \$100,000, male non-smokers for policies with face amounts \$100,000 and greater, female non-smokers for policies with face amounts less than \$100,000, and female non-smokers for policies with face amounts \$100,000 and greater. The range of actual-to-expected ratios is quite broad.

ULTIMATE PERIOD RESULTS

Overall for 2005 – 2007, the A/E ratio (by amount) in the ultimate period (durations 26+) was 81.1 percent of

Table 4
\$100-2,499k – Male/Female Combined – Issue Ages 25-79
Durations 1-10 Combined—Common Companies
(Expected Basis: 2001 VBT)

S/NS	# of Risk Classes	Risk Class	2004-2005			2005-2007		
			# of Deaths	A/E (by Amount)	Ratios of A/Es	# of Deaths	A/E (by Amount)	Ratios of A/Es
NS	2	1	913	53.8%	100%	1,654	53.7%	100%
		2	790	81.2	151	1,509	75.5	140
	3	1	287	46.2%	100%	730	44.5%	100%
		2	373	56.5	122	785	56.0	126
		3	547	81.8	177	1,225	76.1	171
S	2	1	265	76.3%	100%	493	62.3%	100%
		2	243	96.3	126	536	82.1	132

the 2001 VBT. Female ratios are significantly higher (88.8 percent versus 79.6 percent for males). Results by attained age show the highest A/E ratios for both males and females under age 50. At these ages, as well as female ages 90 and over, the ratios are often more than 100 percent. As they do in the select period, mortality ratios generally decrease by increasing face amount suggesting that some impact of underwriting may persist beyond the 25-year select period. For the 21 common companies, the mortality experience improved each year of the five-year period of 2002 – 07. The actual-to-expected ratios (by amount) were 90.7 percent, 88.4 percent, 84.8 percent, 81.3 percent and 78.9 percent, resulting in an average annual decrease of 3.4 percent. This yearly decrease in A/E was also evident across gender and in the majority of face amount bands.

RESULTS BY PREFERRED CLASS STRUCTURE

As was true for the 2004 – 2005 study, contributors to the 2005 – 2007 Intercompany Study were asked to provide information related to their preferred risk class structure. The study contains experience for two, three, or four non-smoker classes and two smoker classes. Thirty-five companies contributed preferred experience for 2005 – 06 and 2006 – 07 and one company contributed preferred experience to only one of the two study years. Twenty-three of the companies that contributed preferred experience for the 2004 – 05 study also contributed preferred experience for both the 2005 – 06 and 2006 – 07. These are referred to as the preferred “common companies.” The preferred experience is for face amounts of \$100,000 and up and issue ages 25 – 90. There is limited data beyond duration 10.

Overall (\$100,000 – \$2,499,999, durations one – 15, all companies, smoker/non-smoker and male/female combined), 2005 – 2007 actual-to-expected ratios (2001 VBT S/NS expected basis) for this block of multiple risk class business are 66.8 percent by policy and 63.5 percent by amount.

Table 4 provides some high-level comparisons for the 23 common companies of 2004 – 05 preferred experience to corresponding 2005 – 07 experience for two and three non-smoker classes. Differences in the ratios of A/Es between the best preferred and residual

Table 5
2005-2007 Experience by Amount—All Preferred Companies
\$100-2,499k—Male/Female Combined—Durations 1-10—2 Nonsmoker Classes
(Expected Basis: 2001 VBT)

Issue Ages	Description	Durations 1-5		Durations 6-10	
		# of Deaths	A/E	# of Deaths	A/E
25-39	Class 1	153	57.9%	365	55.0%
	Class 2	109	87.0	234	84.5
	Ratio 2 to 1	Ratio of Class 2 A/E to Class 1 A/E		1.50	
40-59	Class 1	344	54.7%	815	52.1%
	Class 2	320	68.1	691	67.7
	Ratio 2 to 1	Ratio of Class 2 A/E to Class 1 A/E		1.24	
60-79	Class 1	130	58.1%	254	57.5%
	Class 2	226	78.7	470	82.2
	Ratio 2 to 1	Ratio of Class 2 A/E to Class 1 A/E		1.35	

non-smoker classes appear to be somewhat less for the 2005 – 2007 experience study than for the 2004 – 2005 study. The opposite is true for smokers.

Tables 5 – 7 summarize experience by issue age band for durations one – five and six – 10 for two-class smoker and non-smoker experience and three-class non-smoker experience. Experience for durations after 10 was excluded because we cannot isolate the impact of lapse driven mortality anti-selection.

Relative mortality ratios provide a basis for preliminary observations about wearoff of preferred. It appears that:

- For issue ages 40 – 59, which have the most credible experience, there is not much preferred wearoff—relative mortality ratios for durations one – 5 and six – 10 are quite similar.
- Results are more volatile elsewhere.

Table 6
2005-2007 Experience by Amount—All Preferred Companies \$100-2,499k—Male/Female
Combined—Durations 1-10—2 Smoker Classes
(Expected Basis: 2001 VBT)

Issue Ages	Description	Durations 1-5		Durations 6-10	
		# of Deaths	A/E	# of Deaths	A/E
25-39	Class 1	97	58.3%	105	60.1%
	Class 2	77	79.8	59	64.5
	Ratio 2 to 1	Ratio of Class 2 A/E to Class 1 A/E		1.37	
40-59	Class 1	245	64.1%	264	69.1%
	Class 2	248	81.7	230	83.4
	Ratio 2 to 1	Ratio of Class 2 A/E to Class 1 A/E		1.27	
60-79	Class 1	47	48.8%	54	107.2%
	Class 2	79	90.9	85	133.9
	Ratio 2 to 1	Ratio of Class 2 A/E to Class 1 A/E		1.86	

Table 7 2005-2007 Experience by Amount—All Preferred Companies \$100-2,499k—Male/Female Combined—Durations 1-10—3 Non smoker Classes (Expected Basis: 2001 VBT)						
Issue Ages	Description	Durations 1-5		Durations 6-10		
		# of Deaths	A/E	# of Deaths	A/E	
25-39	Class 1	130	48.2%	140	50.5%	
	Class 2	123	53.7	123	77.2	
	Class 3	184	83.9	103	66.2	
	Ratio of Class 2 or 3 A/E to Class 1 A/E					
	Ratio of 2 to 1		1.11		1.53	
	Ratio of 3 to 1		1.74		1.31	
40-59	Class 1	276	48.0%	304	40.1%	
	Class 2	345	56.6	338	55.4	
	Class 3	584	83.4	456	70.7	
	Ratio of Class 2 or 3 A/E to Class 1 A/E					
	Ratio of 2 to 1		1.18		1.38	
	Ratio of 3 to 1		1.74		1.76	
60-79	Class 1	53	39.0%	102	53.4%	
	Class 2	143	52.9	134	65.6	
	Class 3	267	73.1	206	63.5	
	Ratio of Class 2 or 3 A/E to Class 1 A/E					
	Ratio of 2 to 1		1.36		1.23	
	Ratio of 3 to 1		1.87		1.19	

The ILEC encourages further review of the report and appendices and hopes that many will take the time to explore the vast amount of mortality data contained within the Excel pivot tables.

There are four separate pivot tables organized in the following categories:

- all experience (2005 – 2007 all companies),
- all experience (2002 – 2007 common companies),
- preferred structure (2005 – 2007 all companies),
- preferred structure (2004 – 2007 common companies).

The committee has made great strides in both the timeliness and depth of the mortality studies and believes the study includes valuable information that companies can use to supplement their own internal mortality analysis.

The next mortality report will cover 2007 – 2009 policy anniversaries and the data collection for this study will be performed in 2010.

If you have questions about the report or next study, please contact Jack Luff (jluff@soa.org). ■

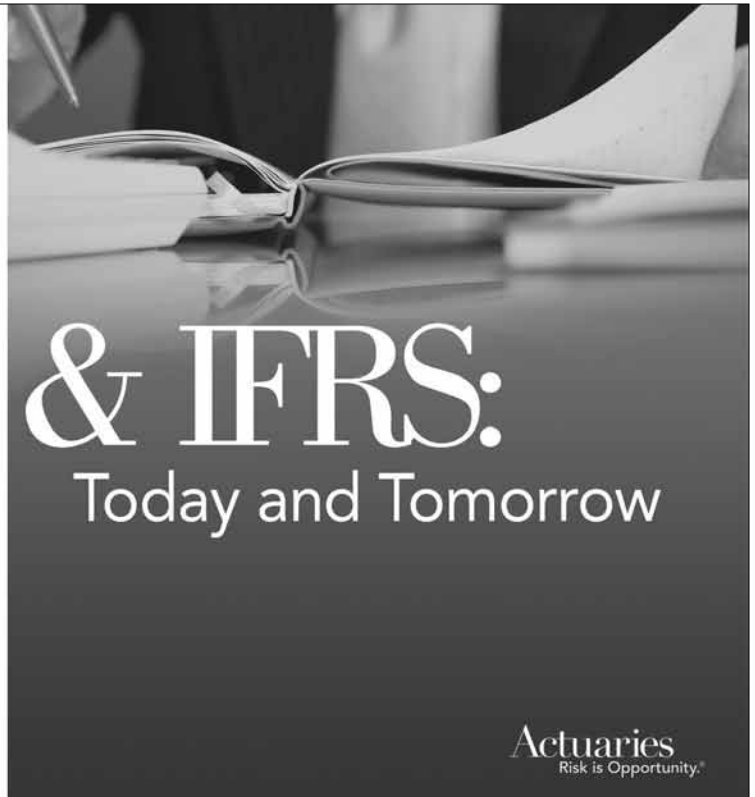
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