REINSURANCE SECTION NEWS

ISSUE 49 SEPTEMBER 2001

Life Reinsurance Data from The Munich American Survey

by James L. Sweeney and David M. Bruggeman

Munich American Reassurance Company prepared the survey at the request 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 American, the Society of Actuaries and the Reinsurance Section take no responsibility for the accuracy of the figures.

Munich American's annual survey, which is conducted on behalf of the Statistical Research Committee of the 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 reinsurance: 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,

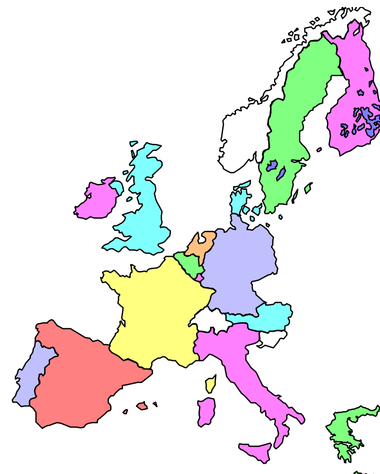
continued on page 2

Reinsurance in Europe

by Joseph F. Kolodney

While America has served as the "pioneer" in the versatile use of life reinsurance over the past 20 years, Europe is still in a somewhat evolutionary process of recognizing the use of life reinsurance as a financial management tool.

Reinsurance in Europe really needs to be bifurcated between the United Kingdom (specifically England and Scotland) and Continental Europe.



The United Kingdom. The U.K. marketplace has, in the last eight years, become more like that of the United States. U.K. companies, which have historically purchased their risk reinsurance on an excess over retention basis, have now moved to what is referred to as "The American Model" where it is not uncommon to see large quota-shares of 80% or 90% on term life products as the rule rather than the exception. In the U.K., term life is generally referred to as "Protection."

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3) Retrocession reinsurance: reinsurance not directly written by the ceding company.

Complete survey results are available from the authors upon request. These results may also be obtained at Munich American's Web site: *www.marclife.com* (look under Research).

Life Reinsurance Production

After 1999's apparent "slow-down" in new business writings, reinsurance production in 2000 returned to the levels reached in the mid-to-late 1990s. The 20.3% increase in U.S. production recorded in 2000 compares favorably to the 5.7% increase in 1999, and is on par with the increases of 31.1% in 1998, 54.9% in 1997 and 24.0% in 1996. The increases in both recurring and portfolio business were only slightly offset by decreases in retrocession and group. In Canada there was a 20.7% increase in total production, largely due to the sizable increase in recurring business. Overall, ordinary new business in North America increased 20.3%.

Life reinsurance production results for 1999 and 2000 are summarized below.

Life Reinsurance New Business Production ($U.S. Millions)

	U.S.			Canadian			Total		
	1999	2000	Change	1999	2000	Change	1999	2000	Change
Ordinary Life									
Recurring	810,592	985,466	21.6%	36,596	51,846	41.7%	847,188	1,037,312	22.4%
Portfolio	107,674	157,394	46.2%	17,681	12,317	-30.3%	125,355	169,711	35.4%
Retrocession	61,893	47,519	-23.2%	1,081	736	-31.9%	62,974	48,255	-23.4%
Total Ordinary	980,159	1,190,379	21.4%	55,358	64,899	17.2%	1,035,517	1,255,278	21.2%
Total Group	26,240	20,430	-22.1%	1,816	4,103	125.9%	28,056	24,533	-12.6%
Total Life	1,006,399	1,210,809	20.3%	57,174	69,002	20.7%	1,063,573	1,279,811	20.3%

Recurring Business

The survey attempts to remove any double counting of retrocession and block reinsurance from the recurring figures. For this reason, recurring business often offers the most revealing picture of production trends. In the U.S., there was a 21.6% increase in recurring new business in 2000 — this compares to increases of 19.3% in 1999 and 33.9% in 1998. The 41.7% increase in recurring business reported by Canadian reinsurers along with the 37.1% increase in 1999 adds support to the belief that, like U.S. direct writers, Canadian direct writers are reinsuring more business on a first dollar quota share basis.

Five companies reported incremental increases in total U.S. and Canadian recurring new business in excess of $15 billion in 2000. With the acquisition of CNA's reinsurance unit, Munich American's new business increase of $75.2 billion was tops for 2000, followed by RGA ($32.0), ING ($30.2), Lincoln Re ($21.6), and Annuity and Life Re ($16.3).

Totals for Canadian and U.S. recurring ordinary reinsurance assumed in 1999 and 2000, as well as percentage changes, are as follows on page 3 at the top.

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This newsletter is free to Section members. A subscription is $20.00 for nonmembers. Current-year issues are available from the Communications Department. Back issues of Section newsletters have been placed in the Society library. Photocopies of back issues may be requested for a nominal fee. Back issues are also on the Web site (*www.soa.org*) in Special Interest Sections.

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

Company	1999 Assumed Business	1999 Market Share	1999 Increase in Production	2000 Assumed Business	2000 Market Share	2000 Increase in Production
Allianz	35,850	4.4%	8.5%	45,536	4.6%	27.0%
Annuity and Life Re	15,934	2.0%	100.0%	32,253	3.3%	102.4%
AUL	42,126	5.2%	22.8%	46,942	4.8%	11.4%
BMA	25,217	3.1%	15.0%	33,004	3.3%	30.9%
Canada Life	9,494	1.2%	33.1%	11,471	1.2%	20.8%
CIGNA Re	632	0.1%	-22.4%	ACQ*	0.0%	0.0%
CNA	33,565	4.1%	44.2%	ACQ**	0.0%	0.0%
General & Cologne	20,680	2.6%	17.7%	20,305	2.1%	-1.8%
Employers/ERC	90,248	11.1%	3.2%	86,577	8.8%	-4.1%
Gerling Global	26,320	3.2%	49.0%	31,397	3.2%	19.3%
ING Re	55,836	6.9%	-0.2%	86,009	8.7%	54.0%
Lincoln Re	114,792	14.2%	43.6%	134,393	13.6%	17.1%
Munich American Re	44,591	5.5%	76.0%	119,859	12.2%	53.4%
Optimum Re (US)	1,083	0.1%	-30.2%	1,069	0.1%	-1.3%
SCOR Life Re	583	0.1%	13.6%	844	0.1%	44.8%
Reassurance Co. of Hannover	3,990	0.5%	9.7%	6,381	0.6%	59.9%
RGA	87,433	10.8%	39.4%	119,449	12.1%	36.6%
Scottish Re	0	0.0%	0.0%	5,060	0.5%	100.0%
Swiss Re	127,109	15.7%	13.7%	124,176	12.6%	-2.8%
Transamerica Re	74,986	9.3%	1.8%	80,741	8.2%	7.7%
World-Wide Re	123	0.0%	38.2%	DNR	0.0%	0.0%
TOTALS	810,592	100.0%	19.3%	985,466	100.0%	21.6%

Canada Ordinary Recurring Reinsurance (U.S. Millions)

Company	1999 Assumed Business	1999 Market Share	1999 Increase in Production	2000 Assumed Business	2000 Market Share	2000 Increase in Production
Allianz	0	0.0%	0.0%	0	0.0%	0.0%
Annuity and Life Re	2,166	5.9%	100.0%	144	0.3%	100.0%
CIGNA Re	1	0.0%	-75.0%	ACQ*	0.0%	0.0%
CNA	0	0.0%	-100.0%	ACQ**	0.0%	0.0%
General & Cologne	1	0.0%	0.0%	6	0.0%	500.0%
ERC-Canada	1,600	4.4%	100.0%	3,796	7.3%	137.2%
Gerling Global	7	0.0%	75.0%	1,562	3.0%	22214.3%
ING Re	4	0.0%	100.0%	2	0.0%	-50.0%
Lincoln Re	3,960	10.8%	89.2%	6,063	11.7%	53.1%
Munich Re (Canada)	10,181	27.8%	28.1%	16,619	32.1%	63.2%
Optimum Re (CAN)	826	2.3%	10.1%	1,382	2.7%	67.4%
RGA	0	0.0%	-100.0%	2	0.0%	100.0%
RGA Re (Canada)	8,147	22.3%	43.2%	8,439	16.3%	3.6%
Swiss Re	9,702	26.5%	20.8%	13,832	26.7%	42.6%
TOTALS	36,596	100.0%	36.4%	51,847	100.0%	41.7%

* CIGNA Re acquired by Swiss Re
** CNA acquired by Munich American Re

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Life Reinsurance Data from The Munich American Survey

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Portfolio and Retrocession Business

Total portfolio business increased over 35% in 2000 as shown on page 2. This follows a 50% decrease in 1999. However, it should be noted that much of the increase in 2000 can be traced to a couple of large administrative reinsurance deals that one reinsurer reported. If we extract the administrative reinsurance out of the portfolio, we would see another drop in portfolio production in 2000. This would suggest that the number of in force block deals being offered to reinsurers has been reducing over the past two years.

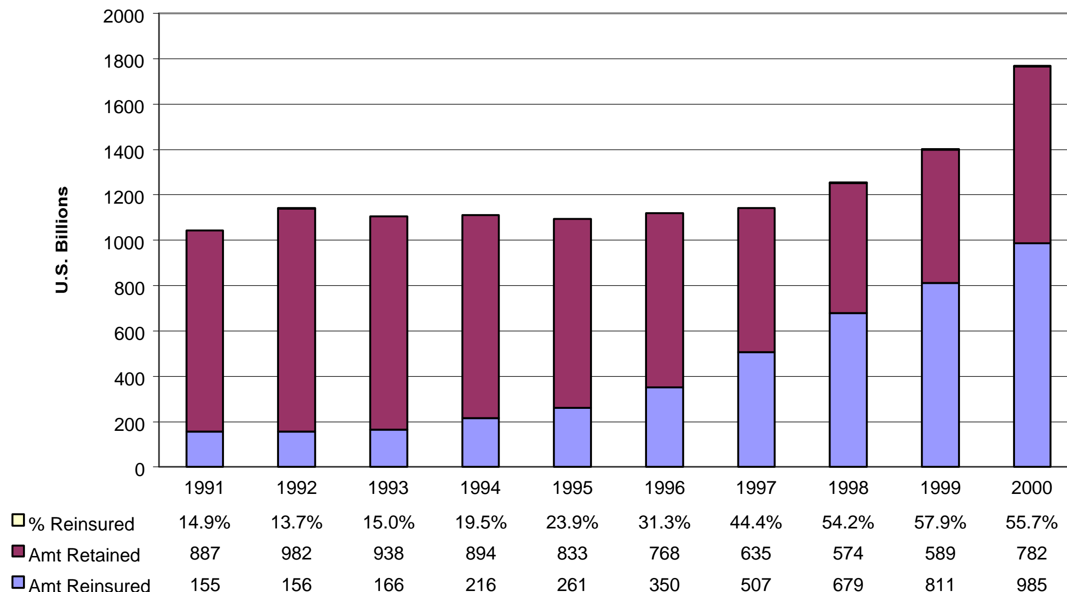
Meanwhile, retrocession production dropped 23%. There are several factors that may explain the drop in production. First, several of the larger reinsurers have recently increased their retention. Second, direct companies are, for capacity reasons, including more reinsurers in their reinsurance pools. While the business to the reinsurer may still increase because of a quota share arrangement, there is not a corresponding increase at the excess layers — which affect the retrocessionaires. Finally, consolidation within the reinsurance market may also be impacting retrocession production as the smaller reinsurers, who typically needed more retrocession capacity, have been acquired by larger reinsurers.

Comparison With Direct Market

Direct life insurance purchases have begun to pick up over the last two years. Preliminary estimates from the American Council of Life Insurance (ACLI) show 2000 U.S ordinary individual life insurance purchases increasing 26.2% from 1999. If this preliminary estimate holds true, the direct market has not experienced such a rate of growth since 1983 — almost 20 years ago. One of the driving forces behind the large growth in 2000 is believed to be the increased activity in the COLI/BOLI market.

Direct writers continue to reinsure on a first dollar quota share basis. If we compare life purchases data from the ACLI to the reinsurance survey production numbers, we can see the impact that first dollar quota share arrangements have had over the years. In just a 10-year span, the percentage of life sales reinsured has grown from 14.4% in 1990 to 55.7% in 2000. However, if we look only at the last three previous years (1998-2000), we see that the percentage has stayed relatively stable — around the mid-50% range. We shall see if the percentage-reinsured level has reached a plateau and, perhaps, even approached its limit.

The following graph compares ordinary life new business totals with the recurring life reinsurance totals for the United States.



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
% Reinsured	14.9%	13.7%	15.0%	19.5%	23.9%	31.3%	44.4%	54.2%	57.9%	55.7%
Amt Retained	887	982	938	894	833	768	635	574	589	782
Amt Reinsured	155	156	166	216	261	350	507	679	811	985

Life Reinsurance in Force

The increases in both US and Canadian life reinsurance in force business resulted in a total increase of 21.6% for 2000. This follows increases of 19.4% in 1999 and 25.1% in 1998. The U.S. total life in force increased 21.7% and the Canadian market in force grew by 20.3% in 2000. The in force survey results for 1999 and 2000 are summarized on page 5.

Life Reinsurance In Force ($U.S. Millions)

	U.S.			Canadian			Total		
	1999	2000	Change	1999	2000	Change	1999	2000	Change
Ordinary Life									
Recurring	2,627,555	3,274,158	24.6%	169,279	218,824	29.3%	2,796,834	3,492,982	24.9%
Portfolio	305,075	364,337	19.4%	20,881	17,399	-16.7%	325,956	381,736	17.1%
Retrocession	246,014	253,442	3.0%	12,029	10,456	-13.1%	258,043	263,898	2.3%
Total Ordinary	3,178,644	3,891,937	22.4%	202,189	246,679	22.0%	3,380,833	4,138,616	22.4%
Total Group	110,966	110,737	-0.2%	26,692	28,559	7.0%	137,658	139,296	1.2%
Total Life	3,289,610	4,002,674	21.7%	228,881	275,238	20.3%	3,518,491	4,277,912	21.6%

Conclusion

The small increase in reinsurance production reported in 1999 may have just been a slight aberration as the U.S. reinsurance market returned to its mid to late 1990s form. The Canadian reinsurance market has begun to experience exceptional growth, as first dollar quota share arrangements become more commonplace.

While Guideline XXX was thought to have slowed direct term life sales in 2000, preliminary reports indicate that the total direct market still experienced impressive growth. Given that recurring production in 2000 recorded similar growth, and that the percentage reinsured level remained stable from the previous year, one could conclude that the reinsurance market shared proportionally in the growth of direct sales.

We would expect the need for reinsurance to continue to be strong as direct companies: (1) seek relief from the financial strain of the new reserve regulations, and (2) take advantage of the attractive reinsurance prices being offered to secure and stabilize their profit results.

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Chairperson's Corner

by Robert W. Beal

Election Results

The ballots for the Reinsurance Section have been tabulated. There were 505 votes cast, representing 24.8% of the Section membership. Jay Biehl, Ronnie Klein and Mel Young have been elected to serve 3-year terms on the Council. Jim Dallas was elected to complete Kathy Anderson's unexpired term. Kathy has asked to step down from the Council because of the international travel demands of her new position. Congratulations to the new members who will begin serving their positions on the Council at the SOA's annual meeting.

The composition of the new Council looks like this:

Council Member	Term Expires
Timothy J. Alford	2002
Jeffrey S. Katz	2002
Robert W. Beal	2002
Ronald L. Klein	2004
Jay D. Biehl	2004
Robert J. Reale	2003
James W. Dallas	2003
Melville J. Young	2004
D. Leigh Harrington	2003

Jeff Katz will be the new chairman. We will be announcing the other officers shortly.

Correspondent Status in the Sections

The SOA Board is encouraging the development of "correspondent" status within the sections. This status would be available for non-Society members who have special interest in or expertise in the Reinsurance Section's area of activity. Correspondents would pay Section dues and be eligible to register for Society meetings, attend Society sessions and seminars, and get Section newsletters at membership rates.

Correspondent members would enjoy all privileges of traditional Section members except voting on Section affairs and serving on the Section Council.

Adoption of correspondent status would expand the reach of the Section and encourage contributions to Section activities from individuals who are not members of the Society. Several sections have already adopted this change.

The Reinsurance Section Council agreed unanimously to adopt correspondent status and is pursuing the necessary changes in the Section by-laws. This will be welcome news to many of our non-member associates from reinsurance carriers who regularly attend the SOA meetings.

Annual Meeting Reinsurance Sessions

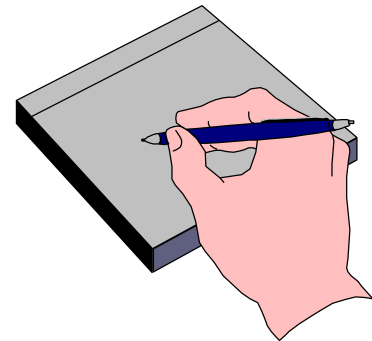
The Reinsurance Section is sponsoring 6 excellent sessions at the annual SOA meeting in New Orleans in October, including a Hot Breakfast. The following is a brief synopsis of the sessions:

Latest News in Life Mortality Studies

Moderator: Theresa A. Choka

Panel: Faye Albert
Thomas E. Rhodes
Michael S. Taht

This session provides an update of the work currently being carried out by the SOA, contributions to SOA studies, and the development of the New Valuation Basic Mortality Table.



Problem Solving with Financial Reinsurance

Moderator: Patrick Kelleher

Panel: William M. Brummond
Lawrence S. Carson
Richard Leblanc
Jean-Francois Poulin

This session addresses the role financial reinsurance has taken in solving two very current issues: reinsuring closed blocks from demutualized companies and funding XXX reserves.

Hot Breakfast: New Developments in the Optional Federal Charter and Offshore Reinsurance

Moderator: Jeffrey Stanton Katz

Panel: Edward Betteto
Monica Hainer

This session follows the Hot Breakfast. Two experts in the reinsurance world discuss new developments in two topical

but somewhat unrelated areas: the optional federal charter and offshore reinsurance.

The Future of Mortality

Facilitators: Dieter S. Gaubatz
Allen M. Klein

Facilitators discuss:

- How the results from this work, as well as other environmental factors, impact expected mortality
- Which past mortality trends are good predictors of future mortality
- What factors may lead to future mortality improvements or deterioration

Following this general discussion, the participants break into small groups to determine the ultimate impact these factors will have on the insurance industry and then reconvene to discuss the implications these factors have, and how to project these unknowns.

Regulatory and Tax Topics in Reinsurance

Facilitators: Denis W. Loring
David A. Rains
Jeremy Starr
Vincent Y. Y. Tsang

Suggested topics include XXX X factors, mirror reserving, use of letters of credit, offshore reinsurance, rate guarantees, recapture on excess and first-dollar, reinsurance, workers compensation carve-out, risk-based capital reinsurance.

Managing the Annuity Risk with Reinsurance

Moderator: Timothy J. Ruark

Panel: Bob Holliday
Ari Joseph Lindner
Jim McArdle
Richard J. Tucker

The panel will be discussing current risks face the direct annuity writers:

- Variable annuities with guaranteed minimum and enhanced death benefits and income benefits
- Fixed annuities with multi-year rate guarantees are capital intensive
- In-force structured settlements have asset portfolios with declining investment yields
- The impact to the payout annuity market from lengthening life expectancies

Attendees learn about the specific product and risk issues facing the annuity carriers and what reinsurance is doing to assist them.

We look forward to seeing you in New Orleans!

Introduction To Life Reinsurance Seminar

The Society of Actuaries and the Reinsurance Section are pleased to present its first “Introduction to Life Reinsurance” seminar to be held December 6-7, 2001 at the Walt Disney World Dolphin Resort in Orlando, Florida.

The seminar will provide an interactive approach to learning the basics of life reinsurance. All the speakers are seasoned reinsurance professionals with years of experience. From basic reinsurance structures, to legal and regulatory aspects, to accounting considerations, the seminar participant will enjoy a thoughtful, interactive two days of learning the essential building blocks of life reinsurance.

The seminar is designed for individuals involved in Reinsurance, Product Development, Financial Reporting or Regulatory topics, and will be designed for those with little to no experience in the subject of reinsurance — a wonderful Professional Development Credit opportunity! However, even seasoned reinsurance experts are bound to pick up a new item or two during the session. The seminar is approved for 10 units of Professional Development Credit.

Topics to be covered are:

- Introduction of Life Reinsurance Concepts and Issues
- Forms of Reinsurance and Actuarial Considerations
- Treaty Terms
- Accounting Issues
- Regulation

Panelists include Jeff Katz of Munich American Re, Jeff Poulin of London Life Reinsurance, Tom Spurling of Lincoln Re, Craig Baldwin of Transamerica Re, and Ronnie Klein of Swiss Re.

For more information, visit the SOA Web site at *http://www.soa.org/conted/bro1b1*

Reinsurance in Europe

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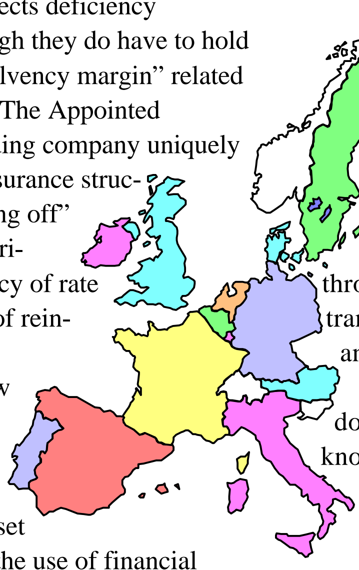
One interesting element in U.K. reinsurance practice is that reinsurers can guarantee the risk premium rates they charge without undergoing the type of reserving requirement imposed on U.S. companies as respects deficiency reserves — although they do have to hold an appropriate "solvency margin" related to their liabilities. The Appointed Actuary of the ceding company uniquely passes on the reinsurance structure and by "signing off" on it, de facto imprimaturs the adequacy of rate and acceptability of reinsurer security.

In addition, new business strains or the desire to improve solvency margins or free asset ratios have led to the use of financial reinsurance structures such as mod-co. The U.K. Financial Services Authority (FSA) and its predecessor, the Department of Trade and Industry (DTI), have also allowed the use of subordinated debt as an additional "reinsurance" type tool for U.K. life companies. This is a form of securitization which, after the successful completion of one transaction, National Provident Indemnity (NPI), seems to have languished as a structure of choice for other companies. The NPI transaction provided capital relief on a fairly long duration basis which would not have been supportable by a conventional "surplus relief" structure.

Key reinsurance products in the U.K. are geared to the "Protection," Critical Illness, and Disability reinsurance marketplaces. There is also death cover to be provided on "unit-linked" business — analogous to our variable life and annuity insurance products.



Because of improving mortality, many U.K. companies (as are Continental companies) are faced with an economic reality that the Annuities issued some years back, currently in pay-out, are probably under reserved as respects accounting for continued mortality improvements. Many companies are seeking reinsurance solutions to "carve-out" or deal with the unforeseen longevity risk through specific mortality carve-out transactions or asset based reinsurance structures.

The U.K. market is served domestically by many of the well-known international life reinsurers through representative marketing offices, companies or branches in the U.K. The usual players such as Swiss Re, Gerling, Hannover, GE Frankona, GeneralCologne Re, Munich Re, SCOR Vie and others are all striving for a position on the panel of the U.K. life insurers. RGA, of American provenance, has established a U.K. presence as well.

Continental Europe

The Continental life reinsurance market is not as dynamic or pro-active as is the U.K. With the exception of Ireland, which has encouraged the formation of Life Reinsurers using the Dublin Financial Center providing significant tax relief and ease of doing business, most European countries are more "traditional" users of life reinsurance. This is in part dictated by tax issues around which product is designed, the type of distribution allowed from country to country, consumer sophistication and also local regulation which may create a "tariff" environment making it difficult to stimulate competition.

Many European countries have started to recognize that the U.S. problem of the continued solvency and financing of its Social Security system has to be recognized in Europe as well. Most European countries have very encompassing — and commensurately expensive — pension and retirement "schemes" where the political structure of the respective countries is recognizing that the "promises made" may not be kept. As a result, many countries such as France, Spain, Italy and others have, or are introducing, regulations which provide tax incentives for individuals to start providing for their own retirement security. All of the countries are recognizing, as in the U.S., that there will be fewer and fewer active workers on whom to levy taxes to support those that have retired. As an example, Italy has a declining birth rate. This does not bode well for the future solvency of the Italian state-supported pension system. Life reinsurance opportunities may be generated as a result of this move to start "cost-shifting" from the public to private sectors.

In France, it is possible to buy a "life insurance product," mainly an accumulation savings product, which if held for a minimum eight year period allows accumulated cash values to be taken out without incurring a taxable event. Better yet, hold it and annuitize it and the stream of annuity payments will also be tax free. In Germany, until recently, there was a huge market in 12-year Endowment contracts, where, after the twelfth year, accumulated values would be completely free of tax. This concentration on "savings products" and the culture of "putting money away" has significantly

depressed the sale of "protection products." The "Human Life Value" concept in the United States, which has been the trigger for a more encompassing approach to both personal and family financial planning, has not gained the same "aura" and interest in Europe.

The European insurance giant, AXA, has reformulated its strategy to do exactly that which has been commonly done in the U.S. by starting with simple personal lines products such as automobile and homeowners insurance and using that as a foundation to build protection products, savings products, estate planning products, etc.

With the "bull market" of the last 10 years, more and more consumers are being made aware of the desirability to involve themselves in equities. This is accomplished by insurance companies providing "unit-linked" policies where performance is tied to the "ups and downs" of the stock market. These are "wrapped" in a life insurance cover to qualify for attractive tax treatment. The "unit-linked" policies are the European equivalent of the mutual fund industry in the United States.

"The 'unit-linked' policies are the European equivalent of the mutual fund industry in the United States. The same approach is taking hold in Spain as well."

This same approach is taking hold in Spain as well. As a matter of interest, the bancassurance (bank insurance) marketplace is a significantly growing one in all of the European countries where Banks can own their own life insurance companies and market products to bank customers which are generally uncomplicated to buy and flow along the lines of reaching the middle market consumer.

We suspect that the introduction of the Euro as common currency in the European Monetary Union countries will create some very unique distribution and reinsurance opportunities where residents of countries formally tied to their respective national currencies will now be dealing in one, the Euro. As a result, companies will be able to market to these consumers on a more level playing field where product comparisons can be made as to cost and benefits without deterring the interested and educated consumer from pursuing those products in those countries that offer him or her best financial advantage.

From a life reinsurance marketing viewpoint, it is a reality that dealing in a more highly developed market requires reinsurers interested in establishing a European presence to take a very long-term view. Historically, this marketplace has been dominated by the same "usual suspects" prevalent in North America and the U.K. who have had, in some cases, more than 100 years of involvement in relatively protected environments to build a massive presence in their home markets and significant business in countries around them.

Reinsurance Market Shrinkage

There is a rarity of new life reinsurance company formations in Europe. There has also been a diminution of existing reinsurers who have had historical presence in the European marketplace. Whether by choice or chance, Swiss Re has probably been the leading acquirer and amalgamator of many European reinsurers who no longer exist independently. Such names as Mercantile & General, Union Re, Unione Italiana, Bavarian Re and most recently Lincoln National Re, have all been acquired or owned as autonomous entities, by Swiss Re. While CNA Life Re never operated in Europe, its acquisition by Munich Re still takes away potential life reinsurance capacity. The new reinsurance company presences in Europe (with the exception of RGA which continues to expand in the more traditional lines of life reinsurance), have tended to focus on financial and asset-based reinsurance transactions. Ace, Tempest, XL Ltd., Max Re and investment banking entities such as Lehman Re, fall into this latter genre.

As we sometimes say in the United States, new products and "trends" seem to move from West to East — from California to New York — whether it's new drinks, new fashion and new attitudes. We believe that this holds true in life reinsurance where the evolution of the use of life reinsurance will continue to develop along structures and products created in the United States and moving across the Atlantic to the European marketplace.

It will be interesting to revisit this in a couple of years to see what has occurred.

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What Is A Dollar Worth?

by Mark R. Troutman

This is the second in a series of articles on financial reinsurance transactions. In my first article, I compared financial reinsurance to other forms of capital and provided a broad list of types of uses of financial reinsurance and their impacts. The purpose of this article is to give several specific examples of financial reinsurance transactions and to give some ideas on how a representative of a ceding company or a professional reinsurer could make contact with others in various venues to get in the mainstream of financial reinsurance activities.

Let's start with a bread-and-butter example of the most common use of financial reinsurance historically — surplus relief transactions. A surplus relief transaction is basic arbitrage between statutory and GAAP accounting. Statutory accounting takes a conservative approach to the income statement and balance sheet by fully expensing certain startup costs to acquire business such as first year commissions. Not recognizing certain assets such as furniture and fixtures and agents debits balances as admitted assets also reduces surplus. Under GAAP, certain costs should be capitalized and then amortized over the usable lifetime of the assets. In a statutory environment, when a company writes new business, it suffers surplus strain because commissions and other expenses and claims and reserve increases are actually greater than the first year premium charged. Therefore, the more business the direct company writes, the more they lose in the first year on a statutory basis. Hence, new business growth, which is supposed to be a sign of good health (if priced appropriately), can leave those who monitor such balance sheets with an indication of declining financial strength. In addition, the company must deal with the increased risk-based capital (RBC) needed for the new sales.

Therefore, surplus relief reinsurers must come to the rescue. Surplus relief can be a cost-effective means of financing new business strain associated with profitable growth. It will be cost-effective if the combination of risks assumed and capital provided are at an attractive cost of capital. What follows is an example of how a block of business might perform without reinsurance. I will then present two opportunities to mitigate the impact of "surplus strain." The first example is a conventional 80% quota share reinsurance treaty. The second, a surplus relief example, demonstrates that a ceding company may attempt to get the best of both worlds through a financial reinsurance transaction. If the business performs well, the ceding company will repay the ceding commissions net of the small expense and profit charge to the reinsurer and then recapture their block of business and obtain the future profits. If the business performs poorly, the ceding company will keep the ceding commission the financial reinsurer gave them and continue to cede the losses to the insurer through the reinsurance treaty mechanics without paying a fee.

Not all blocks of business are amenable to surplus relief transactions. Because of the upside / downside scenario I've just described, "Heads, the ceding company wins. Tails, the financial reinsurer loses," the reinsurer needs to view it as a banking transaction in a reinsurance wrapper or a pawn shop transaction in a reinsurance wrapper. A reinsurer approaches the block of business much like a banker who will not extend a loan unless he feels he has good collateral. Note that GAAP typically treats a surplus relief deal as deposit accounting. To determine the value of the collateral, a financial reinsurer will take the original financial projections of the ceding company and review the policy forms and other pricing and underwriting guidelines on the block of business to be reinsured. It will then perform sensitivity

analysis on the actuarial assumptions used in the block of business. For example, how will the profits emerge if mortality is 125% of expected, net investment income is only 6% vs. 7.5% and lapses occur at twice their expected level over some or all durations? If the business still produces statutory profits, the reinsurer has an asset which can be used to collateralize a surplus relief transaction. If not, the ceding company may have to pursue a conventional reinsurance approach whereby the reinsurer will end up with a more balanced upside and downside potential. The profit earned by the Reinsurer is commensurate with the risk it assumes.

The early 1990s saw a tightening up and cleaning up of the financial reinsurance market as certain companies entered into reinsurance transactions for which an actuary on top of his or her game would have realized that the ceding company was taking more credit for the surplus relief or for the reserves ceded than they actually should have taken risks when compared to the risks transferred. The history and details of those regulations are beyond the scope of this particular article. However, if required, David Letterman and I will follow up with another article that gives a top ten list of reasons why reserve credit was being taken when it shouldn't have been taken in the wild, wild west days of financial reinsurance. Surplus relief became viewed suspiciously by some and as a sign of financial weakness. Is perception reality?

The surplus relief market changed dramatically over the last decade. As regulations changed the nature of the risk transfer requirements, the demand for surplus relief declined as did the supply. New forms of capital such as surplus notes sometimes provided a more cost-effective source of capital — to mutual

companies in particular. Other companies demutualized and obtained their statutory equity through stock offerings. Conventional reinsurance has taken over a more significant role as financial reinsurance declined while still providing significant surplus and RBC relief. This is because product assumptions have became very competitive producing lower future statutory margins and hence less collateral for Financial Reinsurers. Also, the mortality assumptions of the professional reinsurers are such that many direct writers effectively become distribution companies and cede a large percentage of their business on a quota-share basis to the professional reinsurers, locking in a ceding commission in the process. But when one door closes, another door opens. Regulation XXX has created another category of potentially redundant statutory reserves. Reinsurance solutions surfaced quickly and are continuing to evolve to address Letter of Credit pricing and capacity constraints.

Anyway, back to the examples. Before you look at those numbers, anyone who has been to Las Vegas needs to ponder whether Siegfried and Roy actually made the elephant disappear and reappear somewhere else or whether it was just a brilliant financial reinsurance transaction.

The following surplus relief illustration is from the view of the Ceding Company. Please note that fees and taxes have been ignored.

"How Do You Spell Relief" – Example #1

Before Reinsurance						
Year	1	2	3	4	5	6
Premiums	1,000	600	500	400	350	300
- Claims & Surrenders	0	75	100	120	130	130
- Commissions & Expenses	700	150	100	50	40	30
- Increase in Reserves Gain	600	200	150	100	70	50
= Gain	-300	175	150	130	110	90
Balance Sheet:						
Assets	300	675	975	1205	1385	1525
Liabilities	600	800	950	1050	1120	1170
Capital & Surplus	-300	-125	25	155	265	355

* Note how the business generates 300 of strain, but ultimately products 355 of gain.

After Conventional Reinsurance (80% Q.S.)

Year	1	2	3	4	5	6
Premiums	200	120	100	80	70	60
+ Claims & Surrenders (reinsurance)	0	60	80	96	104	104
+ Commissions & Expenses (reinsurance)	560	120	80	40	32	24
= Total Revenues	760	300	260	216	206	188
- Claims & Surrenders	0	75	100	120	130	130
- Commissions & Expenses	700	150	100	50	40	30
- Increase in Reserves	120	40	30	20	14	10
= Gain	-60	35	30	26	22	18
Balance Sheet:						
Assets	60	135	195	241	277	305
Liabilities	120	160	190	210	224	234
Capital & Surplus	-60	-25	5	31	53	71

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Note how the initial strain and the ultimate gains are reduced by 80%. Risk-Based Capital required will be reduced by less than 80% because the C4 risk stays with the direct writer. In addition, the Ceding Company will incur a small reinsurance recoverable charge.

The following example assumes that the Reinsurer pays the Ceding Company an initial allowance of $240m which it hopes to recover over the next three to five years through the emergence of the actual statutory earnings from the underlying block. It could take up to ten years or more if the block suffers adverse deviation in mortality, lapse or interest assumptions.

After Financial Reinsurance (80% Q.S.)

Year	1	2	3	4	5	6
Beginning Surplus Relief		240	100			
Gain on Ceded Share		140	120	104	88	72
Surplus Relief Remaining	240	100	0			
Experience Refund		0	20	104	88	72
Gain on Retained Share	-60	35	30	26	22	18
Gain after Reinsurance	-60	35	50	130	110	90
Balance Sheet:						
Assets	60	135	215	365	489	589
Liabilities	120	160	190	210	224	234
Capital & Surplus	-60	-25	25	155	265	355

Note how the strain is reduced by 80%, but the cummulative gain after six years still equals 355!

The expense and profit charge is ignored here so you can see how the mechanics tie-out between the conventional and financial reinsurance options. A live example might have cost the ceding company $5-10 of profits for the surplus relief over the life of the deal. Potential U.S. DAC and FET taxes have also been ignored for simplicity.

A financial reinsurer is paid for the risk assumption. A financial reinsurer would typically charge 1-3% per year of the amount of pre-tax surplus provided at the end of the year and / or a fee based on the risk-based capital or tax impacts, if any. The fees vary based on the business terms and the credit risk of the company and the profitability expectations of the business.

For detailed discussions on reinsurance treaty formats, I refer you to the Tiller book on reinsurance ***(Life, Health & Annuity Reinsurance, 2nd Edition by Tiller and Tiller, Chapter 5).*** There are a variety of reinsurance treaty formats, each with a different impact on the balance sheet. Many are designed to minimize the cash flow between the parties to the actual surplus relief fee (to avoid issues of collectability and cost of borrowing). The most common financial reinsurance treaty structures are coinsurance with funds withheld (“Cox F/W”), combination coinsurance / modified coinsurance (“Cox / Modco”) or modified coinsurance (“Modco”). Compare this to quota share coinsurance or YRT formats for most conventional life reinsurance.

For example, using coinsurance, the ceding company cedes a reserve and pays an initial premium such that the assets typically equal the reserves transferred. The reinsurer pays a ceding commission (initial allowance) to provide a statutory profit to generate the surplus relief. The initial ceding commission is then repaid from future statutory profits as they emerge. Using coinsurance with funds withheld, the initial premium reduces the reserves and a liability (payable to reinsurer) is set up equal to the initial premium minus the ceding commission. Using modified coinsurance, the ceding company retains the reserves and the reinsurer pays the ceding commission in cash to provide surplus relief. Using modified coinsurance with funds withheld, the ceding commission is set up as a receivable by the reinsured. This format has fallen out of favor given model act accounting “Q&A’s”. My all-time favorite is combination coinsurance / modified coinsurance, whereby the coinsurance reserve portion initially equals the ceding commission (pre-tax surplus relief) and the remaining reserves are modified coinsurance reserves. The Coinsurance reserves approach 0% and the modco reserves approach 100% as the surplus relief is repaid.

In summary, a surplus relief transaction typically increases statutory surplus and reduces premium and reserves in the first year — depending on the structure. Cash is decreased by the amount of the reinsurer's fees plus any current tax effect. The ceding company will incur decreased statutory net income in subsequent years as the surplus is repaid. Surplus relief just changes the timing of the statutory earnings.

In the good old days, surplus relief was not only used to increase the surplus in the statutory balance sheet, but also to increase statutory income. This became more difficult to do under the new model which required that the surplus effect from ceding inforce block of business be reported directly through surplus, and not run through the income statement. Rumor has it that regulators didn't want Ceding Companies to cede inforce blocks of business in order to generate statutory income which could be used to dividend out equity and reduce financial strength. Statutory dividend rules often limit dividends to the lesser of: (a) 10% of the prior year surplus or (b) the prior year's statutory earnings.

Example No. 2 is a conduit or facilitation deal which is my all-time favorite. We facilitated a buyer and a seller accomplishing their objectives through a reinsurance treaty where they preferred not to, or for some reason couldn't, deal with one another directly.

Example No. 3 is an investment transaction. As with example No. 2, the reinsurer was looking to provide support for a company attempting to buy a block of business from another company. The surplus note or private placement was linked to a reinsurance treaty.

Example No. 4 is a simple agents debits balances deal which is attempting to eliminate some of the strain on the statutory balance sheet which does not admit agents debits balances as assets, thereby causing a direct hit to the surplus account.

"Conduit (M&A Financing)" — Example #2

<u>Here's the deal</u>

1. Seller wants to sell a block of single premium whole life policies with $200 million of reserves. Asking price $4 million.

2. Buyer has only $3 million of cash to buy the block and appears a financial risk given only $2 million of capital and surplus and limited insurance licenses. Further, assumption reinsurance is obviously not acceptable to policyholders.

<u>Solution</u>

1. Call in the cavalry (your friendly financial reinsurer) with the following deal structure:
   A. Two consecutive cash coinsurance treaties. One from seller to conduit and one from conduit to buyer.

   B. Assets placed in trust by buyer for security of conduit.

   C. Buyer manages assets within trust restrictions imposed by conduit.

   D. Conduit provides domestic licenses and high grade security so seller can sleep at night (now conduit has insomnia risk).

   E. Seller still administers business and sets crediting rates in conjunction with buyer.

   F. As a special favor, conduit provides $1 million of surplus relief to buyer to complete the financing.

   G. Conduit earns fees for surplus relief deal structure facilitation and credit risk.

   H. Buyer gets the business and begins acquisition plan via insurance and reinsurance transactions.

   I. Everyone lives happily ever after.

Wall Street results without Wall Street salaries and attitudes. This deal was my favorite because I enjoyed structuring the terms with the various parties. In fact, the deal was modified several times over the years to deal with changing circumstances and needs. By the end, I had two more conduit companies involved (three total) to address other issues associated with differences in the book value and market value of the assets.

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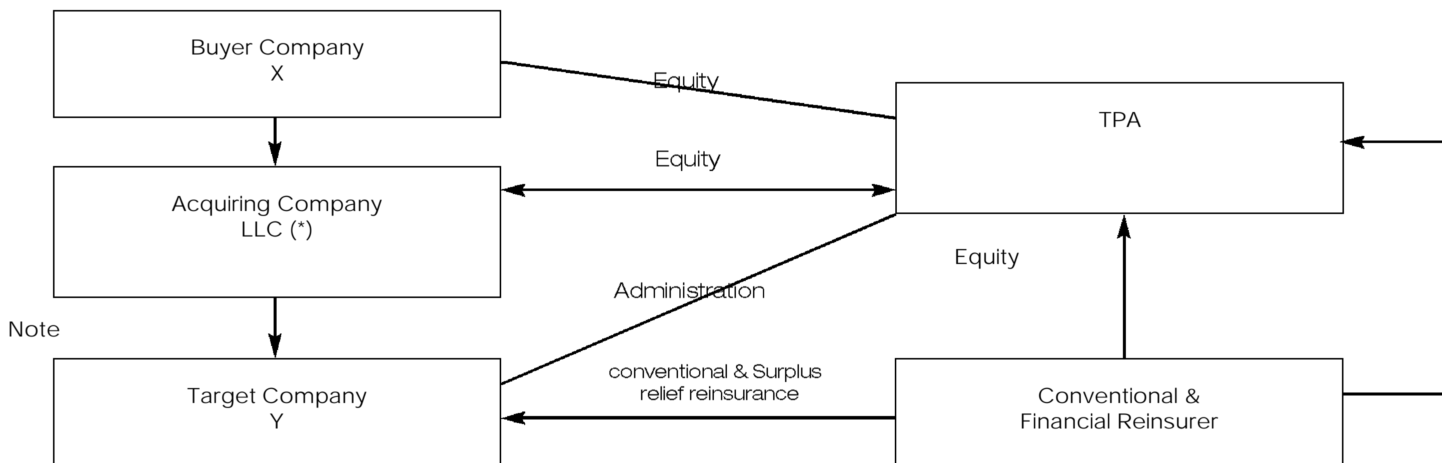
"Make A Note Of This" — Example #3



This deal never went through because the seller didn't sell, but it looked good on paper! As I remember it, the financial reinsurer and company X were creating a joint venture to reinsure company Y. They were to set up a TPA and an LLC to acquire and administer the business and fund them through a combination of debt and equity to be repaid from future profits.

(*) A limited liability corporation (LLC) is a relatively new but common corporate structure designed to combine the limited personnel liability aspects of a C-corporation with the absence of double taxation akin to a partnership form. As such, it is frequently used in merger and acquisition activity as a special purpose vehicle.

"Agents Debit Balance Deal" — Example #4

Beginning Balance Sheets (statutory balance sheet doesn't recognize $20 of agents debit balances (ADB) as statutory assets.)

GAAP

$100 cash	$90 reserves
$20 ADB	$30 surplus

STAT

$100 cash	$90 reserves
	$10 surplus

A combination coinsurance / modified coinsurance reinsurance transaction cedes premium to reinsurer such that it obtains first rights to $10 of the $20 of ADB (note how it collateralizes itself for security on the collectability of all $20). If the deal is done on a "Cox/Modco" basis, the initial premium is equal to the coinsurance reserve. Non-admitted assets and reserves both decrease by $10 and the transaction is income statement neutral.

New Balance Sheets

GAAP

$100 cash	$90 reserves
$20 ADB	$30 surplus

STAT

$100 cash	$80 reserves
	$20 surplus

The GAAP balance sheet often doesn't change in a financial reinsurance deal (net of fees) because the reinsurance treaty is treated as "deposit accounting" or because the surplus strain didn't exist on a GAAP basis. This is a risk-based capital deal because the statutory surplus numerator is increased by the ADB transaction.

One of the neatest RBC financial reinsurance deals is a take-off from a surplus relief transaction. It's structured like a surplus relief deal but the reinsurer does not advance a ceding commission based on the collateral (expected profits) which increases the numerator in an RBC calculation (actual capital divided by required capital). Instead, it takes as part of the initial premium (to support a reserve transfer) an asset with a high RBC requirement and thereby reduces the denominator (e.g. a junk bond or an affiliated investment). Do not try this at home.

Each one of these is a legitimate reinsurance transaction without smoke and mirrors. I hope you enjoyed the examples, but remember, a true magician never tells how the trick is done (until the purchase is made)!

"Close Encounters Of The Third Kind" (*)

* a.k.a. "how to make actual physical contact with an alien reinsurer"

Now that you've got some brilliant ideas or actually just a methodology for listening to a client attentively before you figure out if you have any brilliant ideas, how do you get into the mainstream of financial reinsurance activity?
I suggest the following:

1. Conventional Personnel – Meet with the conventional life/health reinsurance people in your organization and see where opportunities might exist with their clients that should be targeted. Let the ceding company decide if they want conventional or non-conventional solutions or combinations thereof once advised of the various issues, pros and cons by the experts.

2. Brokers/Intermediaries – Yes, they need to make a living too. Solicit business from them and obtain the rules by which they play. These include the major letter houses as well as niche brokers. Although most reinsurers try to go in direct, brokers do control an important segment of the market and you need to be able to work with them. Much more of the international market is broker driven than in the U.S.

3. Professional Reinsurers – There may be opportunities for retrocession of programs too large for one competitor/cedant to do alone. Do you sit and wait by the phone or do you go out and make the contacts so they'll be even more likely to call you when the situation develops?

4. Financial Statements – Find avenues to obtain public financial statements and triage them for problems/opportunities. You obviously have to do that homework anyway to make sure you understand the company in the first place. Look up the reinsurance transactions that the company is engaging in as well and see who are the players.

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5. Rating Agencies – Analyze rating agency ratings reports for problems / opportunities for your toolbox .

6. Cocktail and Dinner Circuit – Become an active participant in local actuarial societies of various countries, workshops, international conventions, seminars, etc. Network there. Of critical importance is to show up for the major meetings such as Rendezvous, Reavie, Baden Baden. These are the European equivalents of Society of Actuaries meetings where deals are discussed. A lot of activity plus a lovely beach usually.

7. Consultants – Since companies often use accounting firms and actuarial consultants to analyze and help solve problems or opportunities, you'd be well advised to meeting with these organizations so they understand your potential ability to be a solution for their clients' problems. These would also be the individuals who help you understand the client's balance sheet. Make calls on these major houses.

8. Travel – Ah yes, cold calling ceding companies can also be a last resort. It is perhaps the hardest and most unproductive as it may have a hit ratio associated with a direct mail campaign.

9. Banks – Banks are becoming an alternative market for securitization transactions. They can also be your partner as well as your enemy. You'd be well advised to visit major banks branches in various financial centers such as New York, London, Switzerland, Ft. Wayne.

10.Writer – You might even consider writing articles in publications such as the *Reinsurance Section Newsletter.*

Anyway, the point is that you have to channel your efforts through multiple channels to be successful. Have fun channel surfing!

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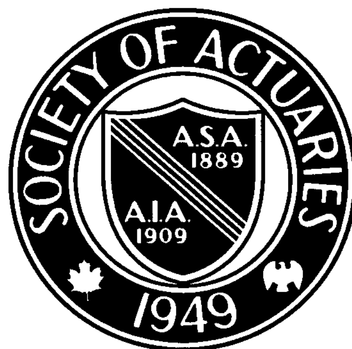

Section Council Drafts Guidelines for Funding Research Projects

by Jeffrey S. Katz

At the Reinsurance Section Council's meeting during the SOA Annual Meeting in Chicago last October, two Section members asked the Council to contribute Section funds to a mortality research project. The Council realized that the Section had no guidelines in place for making decisions regarding research expenditures. Rather than consider each such request on an ad hoc basis, the Council decided to draft a set of guidelines for funding research projects. At the same time, the Council agreed to survey Section members regarding the appropriate annual budget level for research.

As this issue of the Reinsurance Section News goes to print, the guidelines are in their second draft. They set forth the roles of the Section Council and the Council's Research Review Committee in considering research funding requests. The Committee will be made up of three Council members whose role is to evaluate each research project and make a recommendation to the Council as to what extent the Section should fund the request. The guidelines are also intended to help persons wishing to submit research funding requests by suggesting the kinds of information the Committee will require in evaluating a request and the factors the Council will use in making its decision.

In terms of budgeting for research, the Council has established a budget for the 2001-2002 fiscal year of $20,000, based on the Section's current financial situation and the response of the members to the blast e-mail survey of their thoughts on research funding. The Council received more than 170 responses to the survey. Option (b), budgeting based on a percentage of surplus funds each year, received the most votes, but had a plurality of less than 40%. Option (a), percentage of revenue, was second, with a fixed dollar amount (Option (c)) third. Only 10 members, less than 6% of the votes, favored spending no Section funds on research.

Several members suggested that a portion of the Section's current $90,000 surplus be added to the research budget as a one-time supplement, given the large amount of the surplus relative to annual Section expenses. These suggestions were a factor in the Council's decision to set the initial budget amount at $20,000. Future budget amounts will be set as a flat dollar amount, depending on the Section's financial condition at the time. The Council would like to thank those members who participated in the survey and the many who took the time to contribute their thoughts.

The Council's guidelines attempt to avoid some budgeting pitfalls commonly associated with government. There is no requirement that budgeted funds but spent, nor does the level of spending in one year influence the budget in the next year. Funds that are budgeted by unspent during a fiscal year do not roll over into the next year.

Having established a budget for funding research, the Council would like to encourage the submission of requests for funding. Once the guidelines are finalized and adopted, they will be posted on the Reinsurance Section's page on the SOA Web site. In the interim, interested parties can get a sense of the kinds of information required in a proposal by going to the Health Section's page on the Web site (*http://www.soa.org/sections/healthprojects.html*). The Council would like to thank the Health Section for providing a lot of good ideas via their Request for Proposal conditions at that Web site. A key consideration for any project is that it produce benefits for the members of the SOA Reinsurance Section. Research funding requests may be submitted to any Section Council member for consideration.

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