

Issue
No 5

Hannover Re's Perspectives –
Current Topics of
International Life Insurance

A. Helmuth Reich

*The "Turf War"-
The Current Price War
in the United States'
Life Reinsurance Market*

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1. Introduction

The US life insurance / life reinsurance market is one of the most innovative markets in the world. It is also an extremely volatile market, caught between the marketing and technical side or between underwriting and business strategy.

Innovations are quickly adopted, and often become obsolete after only a few years.

In this fast-moving market a profit is not always realized. Companies are ready to sacrifice profit in exchange for market share. As the USA often pioneers the development of new products and markets for Europe, the following paper will describe the background of two price wars, which took place, or are still taking place, in the North American life insurance/ life reinsurance market.

2. The lengthy history

2.1 The first price war (1981/86) and its causes

The life insurance industry in the USA went through a long period of stable development following the second World War. There, and also in many other countries, advances in medicine led to a continuously improving mortality for all age groups, allowing life insurers to obtain attractive underwriting results.

In the United States, there were almost 2,000 life insurance companies active, looking after a market of circa 228 mio people in 1980. (This has increased to circa 261 mio people in 1994).

In 1974/75, the oil crisis unsettled the economic system, shaking up the financial markets as well. Towards the end of the 1970s, and the beginning of the 1980s, interest rates in the USA increased strongly. The table below shows interest rates obtainable on 10-year "T-Bills" in the United States between 1980 and 1985.

10-year T-Bill Rates (1980-1985)

Date	Interest rate in %
31st Dec. 1980	12.43
31st Dec. 1981	13.98
31st Dec. 1982	10.47
31st Dec. 1983	11.80
31st Dec. 1984	11.51
31st Dec. 1985	8.99

These high interest rates attracted foreign capital as well. In 1980, the Dollar was worth DM 1.95. By 1984, it had increased to DM 3.15.

A large number of life insurance companies in the USA were still selling conventional life insurances such as Whole Life, Endowment Assurance, etc. The majority of these policies were calculated with low interest rates of between 4% and 6%, and were often offered with profit sharing/participating plans. In many cases, however, the amount and the benefits of this profit sharing was not guaranteed.

Because of their products, life insurers could not really compete with the attractive capital market. Consequently, lapses increased by more than 50% from 1977 to 1984.

Variable Life policies, which were introduced into the US Market in the seventies, also began to lose their appeal. The return on these policies, which was tied to the stock markets, became less attractive in comparison to the high rates that one could obtain on a fixed-interest bond.

There were also new competitors entering the life reinsurance market. European reinsurers, unable to grow in the tight conditions of their home markets, were looking for market share in a new, expanding market.

Since the end of the 1950s, roughly a dozen European Reinsurers have established life reinsurance subsidiaries in the USA. About the same number of companies underwrite American life reinsurance business directly from Europe. Currently, 8 of the 22 largest life reinsurers in the US market are European.

2.2 New Products

Universal Life

At the beginning of the seventies, the Society of Actuaries had already discussed the basic idea for Universal Life Policies. This policy should separately manage the risk, savings, and expense elements of the premium. The insured should receive interest on the savings element similar to what he could obtain from the financial markets. The basic form of the "Interest Sensitive Policies" was born. This product was so popular that, in 1985, it represented 38% of new business.

Insurers had not, however, taken into consideration two problems:

- ◆ The administrative costs for Universal Life were high
- ◆ Other policies in a portfolio came under increased pressure of cancellation

It was marketing's desire to expand the selling of this policy. But what could they do to find more buyers?

The "Exchange Policy" was created!

Anyone who held a different type of life insurance policy now had the opportunity to exchange it for a Universal Life Policy. The icing on the cake for the policyholder was the weak underwriting guidelines. Just about anyone could exchange his existing policy for a Universal Life Policy without an updated medical examination. This resulted in two effects:

- ◆ A further increase of cancellations of the other policy types

The domestic competition has increased considerably. This has not only influenced the extent of reinsurance terms available, but has as well had indirect consequences on the insurance market; the marketing of various products had been enabled only through the reinsurance.

- ◆ A high mortality through anti-selection with the Exchange Policies

Interest Sensitive Products

In the euphoria of high interest rates, insurance companies offered contracts with guarantees of high returns. When interest rates began to sink, some companies were no longer able to fulfill these interest guarantees, and became insolvent.

Annual Renewable Term (ART)/Graded Premium Whole Life (GPWL)/Re-entry Term

These three types of policies have in common the coverage of death benefits, and variable premium payments starting with low premiums. As the policyholder ages, his mortality increases, and the premium payment goes up accordingly. It should be noted that the premiums do not only increase because of advancing age, but also according to the run-off policy period, as the American mortality table foresees a selection period of 15 years (plus one ultimate table).

The Re-entry Policy allowed a policyholder to renew his policy, after undergoing another medical examination, but enabled the policyholder to "reset the clock" back to the first policy year, and policy year one's low premiums. The clever insured found out quickly that one could restart with the first policy year at many companies for these three types of policies without a medical examination.

The mortality experience was correspondingly negative. The actuaries had a suspicious feeling and therefore transferred considerable parts of the portfolio to reinsurers. Nevertheless the competition was so high that the reinsurers reacted by charging dumping prices. All this was justified through the expectation of an annual improvement in the mortality of 1-2%. These products in particular caused lapse rates of up to 30 % in the portfolios of some companies.

Joint Lives Last Survivor

This policy covers joint lives on the second death. The marketing of this policy form was initiated in order to pay inheritance taxes. As the risk premiums for this product are very low, cutthroat competition was not really necessary. Nevertheless the competitors fought to the finish. The consequence was that the insurance and reinsurance premiums paid were sufficient to bear the pure risk, but not to cover the expenses.

2.3 The consequences of the Price War

The uncontrolled underwriting of products that contained considerable risks, both on the risk side itself and also on the investment side, led to an unhealthy business climate. Various life insurance companies felt compelled to pursue new types of investments. In order to realize sufficient income for the new "Interest Sensitive Products"

- ◆ these companies invested over-proportionally in Junk Bonds and
- ◆ held an imbalanced portfolio with, for example, emphasis on commercial real estate.

Junk Bonds are high interest bearing bonds that have an increased credit risk. Both above-mentioned aspects had disastrous consequences for the companies in question. In order to compensate for deficits in the balance sheet, companies entered into "Surplus Relief Contracts without risk element". These were intended to conceal the weak surplus situation of the companies.

The avalanche could not be stopped. After the mid-eighties the number of insolvencies began to increase. The following table indicates the number of companies insolvent or under supervision:

Only after 1991 did the number of companies becoming insolvent or being placed under supervision began to decrease. Members of this group were not just small companies with low capit-

Year	Companies insolvent or under supervision
1985	9
1986	14
1987	20
1988	20
1989	44
1990	41
1991	65

alization or with inexperienced staff. The following are examples of the situation:

The Executive Life Insurance Company, Los Angeles, had been founded only in 1961 and had experienced amazing growth. By the end of 1988, its assets amounted to USD 12.8 bn and the company was rated A+ by Best's, which was the highest rating possible. In 1990 this rating deteriorated to A. In mid 1991 it was put under supervision because the company's assets included a large percentage of Junk Bonds. Certain of these bonds were in default. Negative publicity led to many cancellations and finally to the insolvency of the company.

The Monarch Life Insurance Company, Springfield, was founded in 1901. By the end of 1989, its assets amounted to USD 5.1 bn and the company was rated A+ by Best's. In November 1990 the holding company of Monarch Life, Monarch Capital Corporation, had to write down a considerable amount of real estate assets. Afterwards, Monarch Life was put under supervision.

The Mutual Benefit Life Insurance Company, Newark, New Jersey had a history of more than 100 years by the end of 1989. Its assets amounted to USD 11.6 bn and the company was rated A+ by Best's. In July 1991 they were put under supervision after being forced to write down their assets on various types of investments.

In these three well-known examples, the insolvency was caused by problems arising out of the asset side. Other, smaller insurance companies were put under for much more trivial reasons, such as the lack of proper medical underwriting, insufficient premiums, and reinsurance programs which were not adequate to cover the full exposures of the insurer.

After highly reputable companies became insolvent, Insurance Departments in the United States could no longer look on passively. The new requirements that they developed were a direct result of problems identified with certain types of reinsurance, and also in the assets and liabilities allowed the insurance companies.

Consequently the following measures were taken:

- ◆ Reinsurance treaties were not allowed any more, unless the full risk was being transferred.
- ◆ The so called „Risk Based Capital“ was introduced. It sets the minimum capitalization for the underwriting of specific classes of risks, or if a portfolio contains specific investments.
- ◆ Concerning guarantees, additional reserves must be made:

- ◆ In some states the XXX-Reserve must be established for the underwriting of risk products with guaranteed mortality rates.
- ◆ GGG-Reserves must be established for the underwriting of annuity products with guaranteed benefits.

The price war had effects not only in the insurance market. It found victims in the reinsurance market as well. Almost all life reinsurers active in the American market took part in this price war, either knowingly or unknowingly.

The following examples will indicate the developments of several life reinsurers:

- ◆ The **General Reassurance Corporation**, former subsidiary of the General Reinsurance Corporation, was sold in November 1988 to the Texas Re Life Insurance Company and changed its name to Life Reassurance Corporation of America. Higher technical losses in some business sections preceded this transaction.
- ◆ The **American Skandia Life Reinsurance Corporation** was sold in 1993 by the Skandia Group to the Hartford Life Insurance Company. The name was changed into ITT Hartford International Life Reassurance Corporation. The American Skandia Life Reinsurance Corporation had suffered technical losses in the Life Reinsurance.
- ◆ The **NRG America Life Reassurance Corporation** was sold in 1993 by the NRG America Holding Company through a "Management Buy Out". The company was renamed Harbourton Reassurance. In the meantime the company has ceased the traditional Life Reinsurance and has sold its Life Reinsurance portfolio. Because of the expected losses, Harbourton Re had to pay a selling price for this sales transaction, instead of receiving money.

- ◆ The *Urbaine Life Reinsurance Company* was first a subsidiary of the UAP, Paris. It was sold to the SCOR S.A., Paris, and then taken over by the Société Centrale L'Union des Assurances de Paris in February 1990. Finally, in March 1993, the company was sold to Security Life of Denver. By then, the Life Reinsurance activities had been discontinued. The company's current name is First ING Life Insurance Company of New York.
- ◆ The *Security Benefit Life Insurance Company* sold its Reinsurance portfolio to the North American Reassurance Company (a subsidiary of the Swiss Re) in 1991.

3. AIDS, or the calm before the second storm (1987/93)

A new risk made its appearance just in time to provide a break for the groggy life insurance/ life reinsurance industry. In 1985 insurance publications wrote extensively for the first time about the new danger of "AIDS". The publications proceeded on the assumption that one could expect a doubling of the AIDS victims every 8 months. The long-term prognosis of the actuaries concerning the expected AIDS losses were horrendous.

Two campaigns were begun, which did not fail to work:

- ◆ The life insurance companies in the United States began to require a medical examination, including a blood test, for the purchasing of smaller and smaller sums insured.

There were even companies requiring a blood test for every policy. On average, a blood test was required for a sum insured starting at USD 100,000 (before the AIDS problem one could easily take out a policy up to USD 500,000 without a medical examination).

- ◆ The Government and the media pursued an intensive educational campaign, informing about the risks of "Unsafe Sex".

As a by-product of the more intensive underwriting, other possible anomalies were examined more thoroughly. This has resulted in a considerable improvement in the insured and reinsured mortality since the end of the eighties.

4. The second price war (starting in circa 1994)

4.1 Development of the insurance and reinsurance market since 1989

Since about 1994 a new price war has begun in the USA. At the beginning, the fighting seemed to be only between reinsurers. As the reinsurance and insurance market are dependent on each other, one could expect to see the effects in the insurance market in the not-so-distant future.

The following table shows the different development between life insurance and life reinsurance between 1989 and 1994. We will first look at the development of the life insurance in force (sums insured) in the USA for these years.

Life insurance in force (sums insured in bn. USD)

Year	1989	1990	1991	1992	1993	1994
Business in force	11,545	12,380	12,914	13,319	14,091	15,116
Increase in %		7.2	4.3	3.1	5.8	7.3

As one can see, the business in force has experienced an average increase of 5.5 % p.a. within the period in question.

We can look at the life reinsurance in force (sums insured) in the USA on a similar basis for the same period.

Life reinsurance in force (sums reinsured in bn. USD)

Year	1989	1990	1991	1992	1993	1994
Business in force	2,033	2,143	2,190	2,305	2,301	2,422
Increase in %		5.4	2.2	5.3	(0.2)	5.3

The life reinsurance in force has only increased by 3.6 % p.a. over this period. Life reinsurers considered this increase as obviously too meager and, within the scope of stiffening competition, the demand for additional market share had increased.

One can assume, therefore, that the current price war in the life reinsurance market is primarily a conflict concerning market share. This becomes even more obvious after looking at the struc-

ture of the life reinsurance market in the United States. It is extremely fragmented. In 1994 the 27 largest life reinsurers held only 40 % of the overall life reinsurance business in force.

The next table shows the development of the reinsurance in force of the 27 largest life reinsurers in the USA, and the total life reinsurance in force (sums insured) during the years 1992, 1993 and 1994.

Life reinsurance in force – Top 27 reinsurers/Total reinsurance (sums reinsured in bn. USD)

Year	1992	1993	1994
RI-in force of the 27 top reinsurers	882	893	977
Total reinsurance in force	2,305	2,301	2,422

Furthermore it is interesting to observe that Transamerica Occidental, the largest life reinsurer in the USA at the time, held a share of

only 6.4 % of the life reinsurance in force in 1994.

4.2 Products

Just like during the first price war, the products are a certain key factor in the second price war. Two of these products, therefore, shall be described:

Preferred Risks / Super Preferred Risks

In the beginning of the eighties it became common to split rates into smoker and non-smoker categories. As a consequence of the more selective underwriting as a result of AIDS, and the corresponding improvement in mortality, companies tried to improve their market position by offering reduced rates for particularly good risks.

A "Preferred Risk" is defined as follows:

Not only does the person have no medical anomalies and belongs to the non-smoking category, but he does not belong to one of the risk groups which are prone to develop anomalies, such as persons with

- ◆ a high level of cholesterol
- ◆ an unfavorable family history
- ◆ obesity

For those risks which do not belong to these risk groups, a credit may be offered. After some

time the development went further, by introducing the so-called "Super Preferred Risks", with the option of more credits. In addition to other factors, some companies even required as a criteria for the "Super Preferred Risk" that a specific amount of physical exercise be accomplished each week.

Variable Annuities

These Variable Annuities normally include guaranteed death benefits. They incorporate "derivative risks"; if the fund is depreciated, benefits considerably higher than usually expected will be paid. These additional benefits are offered without any additional premium.

As the name already indicates, the insured has the option of using the accrued fund assets as an annuity after a minimum qualifying period. In general, the contracts anticipate minimal, guaranteed annuity rates. If the applicable rates, however, are more favorable than the guaranteed rates when the annuity becomes due, the benefits for the insured are higher. Circa ninety percent of the insureds consider this policy as an investment. After canceling the policy, they receive the equivalent of their fund shares at the current price after a certain deduction dependent on the time of the cancellation.

4.3 Examples from the second price war

The second price war, as mentioned previously, started around 1994, and we currently find ourselves in an extremely hot phase of it. The insurers have taken the reinsurance coverages into account, and have recognized that they can reinsure their new business for less than the actuarially justified minimum premium.

The situation is illustrated by two quotes from an article written by K. G. Maher in Best's Review. Life/Health, in March 1996:

- ◆ "It often appears that these players have been fighting through a "feeding frenzy" to obtain the new business entering the market place."
- ◆ "Typically, the North American branch representative of the life reinsurer will pass along that newly assumed business by retroceding it to its larger European parent to be included with the organizations worldwide pool of life reinsurance business."

The first quote describes the intensity of the reinsurance hunger which currently prevails in the USA. The author seems to believe that the European reinsurers, who are able to draw on the support of strong European parent companies, are offering dumping prices in the US market in order to win market share. This one-sided picture is certainly not correct. One can observe that almost all large American reinsurers are participating in the fighting.

In the following, three examples from the price war shall be given, as they have come to our knowledge:

1st Example

Until spring 1994 a significant American insurer had maintained a retention of USD 1 mio per insured life. The reinsurance volume of ceded new business p.a. (sums insured) amounted to circa USD 250 mio. At this point a syndicate of reinsurers approached the insurer and offered reinsurance capacity at very low rates.

The current reinsurers were contacted, and asked if they could compete with the offer. The insurer also enclosed information concerning the mortality experience of the portfolio. This experience revealed that the mortality represented in average 89.8 % of the American mortality table 75/80 sel. and ult.. The risk rates of the reinsurance syndicate were circa 20 % lower.

The insurer immediately changed his reinsurance strategy. Instead of buying an excess program attaching above a retention of USD 1 mio per life, he ceded an 80 % quota share and retained the remaining 20 %. The volume of ceded new business (sums insured) increased up to USD 55 bn p.a..

2nd Example

In the middle of 1995 insurer No 2 was looking for reinsurance coverage for a new Term Insurance product. It had constant benefits and increasing rates, as we already saw from the ART-Tariffs during the first price war (see above). After a period of 10 years the insured has the

option to effect a "Re-entry" subject to a new medical examination (again, this is the same situation like during the first price war).

The insurer asked almost a dozen reinsurance companies for their offer, but still withheld its decision. In Autumn 1995 another group of reinsurers appeared at the last minute and improved the offer. This was so good that the insurer decided to accept it.

The reinsurance included a reinsurance commission of 100 % of the first annual premium. Projections indicated that the actual offer included commissions for the following years that were 7 % higher than what the reinsurance net rate could actually afford. The product also contained categories of the group "Preferred Non Smoker". One can assume that the company could only quote the low rates for this Term Insurance product because of the reinsurance conditions.

3rd Example

In the middle of 1995 insurer No 3 contacted a number of reinsurers to obtain offers for its new Term Insurance product. The analysis of the mortality experience which was supplied by the insurer showed that the assumed mortality for the premium quotation was 20 % under the actual mortality experience.

The insurer managed to find a group of reinsurers which agreed to a rate level below the actuarially justified minimum premium. The assumed mortality was considerably below the results of a mortality study for "Preferred Non Smoker" risks.

This study was carried out with the support of the Bragg Tables.

This is another excellent example of the fact that the insurers are able to act aggressively in the market only by taking advantage of the extremely competitive reinsurance situation.

5. The situation at the front – still no chance for peace

At the end of October 1997, the Annual Meeting of the Society of Actuaries took place in Washington. Among various topics, the symptoms and effects of the current price war were discussed by several working groups.

The general feeling of the participating actuaries concerning the current market situation ranged from being strongly insecure to relatively optimistic. Currently, the main battlefields are in the areas of Term Insurances and the "Preferred Risks". One of the actuaries described the current pricing techniques as an Oxymoron (Greek: an epigrammatic effect, by which contradictory terms are used in conjunction; in other words, a penetrating absurdity).

The main dilemma of the market participants is perhaps that everybody defines Preferred Risks in a different way. This means that it is impossible for insurance experts to compare different Preferred Risk-Products. In order to make this clear, the following will demonstrate some characteristics of the market:

Segmentation

As already outlined, companies began to introduce the category of "Preferred Risks" alongside the "Standard Risks" category at the beginning of the nineties. This development continued with the introduction of "Super Preferred Risks" and the risk-category "Preferred Smoker".

<i>Number of different Risk classes</i>	<i>Number of Companies (out of 60)</i>
3 (1 Preferred)	23
4 (2 Preferred)	28
5 (3 Preferred)	4
6+ (4+ Preferred)	5

In order to gain an insight into the spectrum of the Preferred Risk products in the USA, the Society of Actuaries formed a Task Force in 1995 and also in 1997 to carry out a "Preferred Underwriting Survey". All in all, 60 companies responded to the survey. The above Table shows

the number of various Preferred-Classes which companies had offered for their Term Insurance in 1997.

Underwriting Criteria

A similar non-uniformity of the medical criteria for Preferred Risks can be found in the Preferred Underwriting Survey. Only the limiting values shall be indicated, for example, for cholesterol, the ratio cholesterol / HDL and blood pressure, taking into account the highest and lowest value being tolerated by the 60 companies for Preferred Risks:

(All values for age 45)

Cholesterol
 Lowest indicated value: 200
 Highest indicated value: 400

Cholesterol / HDL Quotient
 Lowest indicated value: 3.0
 Highest indicated value: 11.0

Blood pressure (systolic / diastolic)
 Lowest indicated value: 130 / 80
 Highest indicated value: 160 / 95

35 of the companies questioned did not differentiate between men and women when it came to the maximum weight of the Preferred Risks.

Looking at the multitude of the Preferred-Risks classes offered, the insured obviously has the desire to be rated in the most favorable class. A characteristic of the competitive situation is the attempt to soften the original strict rating criteria. Exceptions are found for many applicants in order to put them into a specific rating class. During the Annual Meeting of the Society of Actuaries the methodology of making such exceptions was discussed in particular.

In his presentation about the "Preferred Underwriting Survey", Al Klein has listed, in a general way, possible reasons for the acceptance of exceptions, as they were identified by companies:

- ◆ Negative and positive criteria compensate
- ◆ The risk is assessed as a total
- ◆ Not all of the underwriting criteria shall be considered as being carved in stone
- ◆ In general, exceptions were even made when certain laboratory values were slightly exceeded

Actuarial approach

Many companies use the above-mentioned Bragg Tables for their rating. The newest editions are for the years 1997 and 1998. The drawback is that there are only 6 or 7 years of experience available for Preferred Risks while the Tables indicate a selection period of 15 years plus one ultimate table.

Some people kept warning that the experience during the first years could appear too favorable especially for the category of Preferred Risks. The so-called "Hockey Stick-Effect" might hit, meaning that the mortality for Preferred Risks deteriorates faster than for insureds as a total. In her speech about "Recent Trends in Individual Life Mortality", Mary Bahna-Nolan gave a short presentation about the methodology of determining risk rates for Preferred Risks. She proceeded on the assumption that the companies started with only one Preferred class.

For this Preferred Risk-Class the following "Balancing Formula" was applied:

$$(QP \times q_x^{\text{pref}}) + (1 - QP) q_x^{\text{Std}} = q_x^{\text{AggNT}}$$

QP: Share of Preferred Risks from the non-smoker portfolio

q_x^{pref} : Risk rate for a Preferred Risk, for age x

q_x^{AggNT} : Risk rate for standard non-smoker risks as a total (NT = Non Tobacco) for age x

q_x^{Std} : Risk rate for the residual group of the non-smoker standard portfolio (non preferred) for age x

This equation contains four variables. Only one of them is known, which is the risk rate for standard non-smoker risks (as a total).

The companies have themselves determined (i.e. arbitrarily) the share of the Preferred Risks and the risk rates for the Preferred Risks. Concerning the latter, the approach was guided by the Bragg-Tables or through mortality studies of specific risk groups (or preferred groups). The extent of such a preferred group compared to the total non-smoker standard portfolio was estimated. These estimations obviously had different results in each company.

The smaller the percentage for Preferred Risks was assumed, the lower the risk rates for these Preferred Risks could be determined. On the other hand, the third unknown value, the risk rate for the residual standard risks, was determined through both variables (i.e. the risk rate for Preferred Risks and its share of the portfolio).

Concerning this process, one did not take into consideration that two anti-selection processes were set into motion:

- ◆ a selection by agents
- ◆ a selection from the insureds.

The agents were proceeding according to the principle of the "lowest premium and the highest commission". The insured was looking for the lowest premiums and the lowest rating level. As a consequence, the companies ended up accepting 80 % of all risks as preferred instead of the originally assumed 50 %.

Some companies with low rates for Preferred Risks were much in demand, while others had to content themselves with what was left in the unfavorable portfolio of the residual risks. The determination of risk rates became even more complicated after new, additional Preferred classes were introduced. The multitude of new products on the market did not decrease the competitive pressures.

Many companies are still proceeding on the assumption that the mortality will improve by 2 % per year. They have not, however, taken into consideration that certain infectious diseases, such as tuberculosis, are staging a comeback. Nor have they rated for the appearance of other, new diseases, such as AIDS, that are, so far, still unknown.

During the Annual Meeting of the Society of Actuaries, Douglas C. Doll presented the results of three surveys about the subject "Current Issues in Life Insurance Pricing".

In the "1996 Pricing Methodology Survey" representatives of life insurance companies were questioned about their profit expectations for their new business in 1995. Approximately one third of those questioned said that they did not have positive expectations for Term Insurances or that they did not know how these might develop.

For Universal Live policies, a similar figure was determined for those companies with a high level of sales. The figure for those companies with low sales was worse and circa 50 % of the persons responding had negative expectations.

Reinsurance's Influence

Representatives from reinsurers expressed a broad scale of views ranging from pessimism to optimism.

6. Mergers and Acquisitions

In order to reinforce their position for the ongoing price war and to obtain a bigger market share, several insurance companies are trying to merge with appropriate partners or, if possible, to acquire other life insurance companies.

As the following quotation entitled 'Risky Behaviour' from the Financial Times World Life Insurance Report (September 1998) indicates, the price war is evolving into a new form of combat:

"Recent mergers and acquisitions in the North American life and health insurance industry have

The following advantages of the current situation for insurers were stated:

- ◆ The insurers could expect stable mortality profits for Quota Share/First Dollar reinsurance contracts.
- ◆ The underwriting of considerable business volume would not cause a higher financial burden (solvency margin) because of the reinsurance coverage.
- ◆ The aggressive reinsurance market would offer optimum conditions for the insurers.

On the other side, warning lights began to flash for the reinsurers:

- ◆ High competition
- ◆ Insecurity due to delay in obtaining information and insufficient data
- ◆ Prices drop to an unprofitable level
- ◆ Little loyalty of clients
- ◆ Super Preferred Risks increase the problems
- ◆ Parallels were drawn to the pricewar of the 80'ies.

intensified competition within the whole financial sector. Larger, more aggressive financial institutions are sprouting throughout the US and Canada, each equipped with highly influential marketing teams aiming to secure a bigger slice of the market. In response to the added competition, many insurance companies are stepping up their competitive positioning through the use of price-cutting incentives and the promise of higher returns on products. But, the quest of greater returns has led some insurers to dabble in risky product offerings, which in turn has produced fluctuating earnings.

According to Chicago-based Duff & Phelps Credit Rating Company (DCR), the increase in competition is presenting a "material risk of eroding the life insurance industry's sustainable organic capital growth rate". With the threat of lower

profit margins for insurers, there is little wonder why Duff & Phelps has changed its outlook opinion of the US life/health market from stable to unstable."

7. Conclusion

In February 1998, Ron Panko wrote that the current price war is comparable to a "Turf War". By this, he means that the companies are trying once again to define their market shares. The so-called Baby Boomers are underinsured right now and everybody is trying to incorporate them into their portfolio, according to the maxim "once insured, always insured".

The price war is not yet over but initial more-or-less successful reactions can be observed:

- ◆ Two of the most successful distributors of Term Insurances

Northwestern Mutual Life Insurance Company, Milwaukee, Wisconsin.

Allstate Life Insurance Company, Northbrook, Illinois.

only offer their Term Insurances after an extremely strict underwriting process.

- ◆ *Indianapolis Life* has apparently reduced the number of risk classes because of their view that the diverse classifications annoy the insureds.

- ◆ Some companies have returned to Term Insurances with constant premiums and with the option of relatively long durations, for example between 20 and 25 years.

- ◆ New York, the strictest Insurance Department in United States, has already reacted. After January 1st, 1998 the paragraph 4228 is replaced by a modified version. According to the latter, the assumptions for products, such as interest, mortality, lapse, taxes, expenses etc. shall be calculated in the way that the product is self-supporting and does not have to be cross-subsidized by other products.

David B. Atkinson selected as a good summary the title of the "Reinsurance Section Breakfast" during the Annual Meeting of the Society of Actuaries in 1997:

"It's not too late to change the future."

8. References

- ◆ BEST'S Insurance Reports, Life-Health, Editions 1989 until 1996
- ◆ BEST'S AGGREGATES & AVERAGES, Life-Health, Editions 1983, 1990 until 1996
- ◆ Review & Preview, Compiled by the staff of A.M. Best's Life/Health Division, Best's Review Life-Health Jan. 1994
- ◆ John M. Covalesski, Best's Review Life-Health June 1994
- ◆ Michael A. Farinella, Best's Review Life-Health June 1995
- ◆ Kevin G. Maher, Best's Review Life-Health March 1996
- ◆ Michael A. Farinella, Best's Review Life-Health June 1996
- ◆ A. Helmuth Reich, Der Aktuar, Heft 2, Juni 1997
- ◆ Ron Panko, Best's Review Life-Health February 1998
- ◆ 1988, LIMRA, 1985 - 1986 Long Term Ordinary Lapse Survey in the United States
- ◆ 1992, LIMRA, 1989 - 1990 Ordinary Lapse Survey in the United States
- ◆ 1982 Life Insurance FACT BOOK, American Council of Life Insurance
- ◆ Der Fischer Weltalmanach '82
- ◆ Der Fischer Weltalmanach '97
- ◆ Society of Actuaries 1997 Annual Meeting Handouts:
 - ◆ Al Klein, Preferred Underwriting Survey
 - ◆ Mary Bahna-Nolan, Recent Trends in Individual Life Mortality
 - ◆ Douglas C. Doll, Current Issues in Life Insurance Pricing
 - ◆ David B. Atkinson, It's not too late to change the future, Reinsurance Section Breakfast
 - ◆ Raymond E. DiDonna, Impact of Reinsurance on Pricing of Products in Today's Marketplace
 - ◆ Tom Bakos, Current Issues in Life Insurance Pricing
- ◆ FINANCIAL TIMES WORLD LIFE INSURANCE report, September 1998

