

# RECORD OF SOCIETY OF ACTUARIES 1983 VOL. 9 NO. 3

## TERM INSURANCE

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Trends in product design

--Current environment

--Interaction with Universal Life and other nontraditional products

--Future of term insurance

Recent mortality and persistency experience

--Impact on profitability

--Amortization of acquisition expenses

Cost considerations

--Impact of 818(c) election

--Smokers, non-smokers and aggregate rates

--Deficiency and minimum reserves

--Reinsurance

MR. STEVE RADCLIFFE: Today's open forum session is on term insurance. We have had several term insurance sessions at Society of Actuaries' meetings in the past. Usually those sessions were quite repetitive and generally expressed concern about the deteriorating premium rates. These sessions usually had little effect and everyone would return to their individual home offices and design another new term product with even lower and more ridiculous rates.

I hope today's session will be somewhat different from those of the past. At prior sessions not enough experience had developed and no one had any hard facts about the assumptions that should be used for this product. We are in a transition now and some hard facts are beginning to emerge.

Let me give you an analogy that illustrates where the term insurance situation stands at the current time. The analogy is with the information that emerged with respect to the effects of smoking on health. Back in the middle 1960's, the Surgeon General first came out with his warnings that smoking might be hazardous to your health. However, at that time, there was not much hard data to support his conclusions. As a result, his message did not have any major effect on the smoking habits of the general population. By the early 1970's, great quantities of data started to emerge that proved almost beyond a reasonable doubt that smoking was hazardous to your health. This information finally had some effect and people did change their smoking habits and by now only one-third of the population are smokers compared with two-thirds of the population back in the middle 1960's.

Maybe, information on term insurance products is at about the same stage that the information on the effects of smoking was in the early 1970's. We are beginning to see some measurable experience emerge on term insurance and we can analyze the effects that it has on pricing.

Hopefully, today's session will provide you with some usable data that will have some impact on the direction of the term insurance market. In my opinion, the data will show that select and ultimate term insurance can indeed be hazardous to your corporate health.

We would like to make our presentation today in an order that is different from that shown in the program. First Gary Dahlman will talk about recent mortality and persistency experience on term insurance. Then I will take the section on cost considerations, and we'll save the best for last. Harold Ingraham will talk about trends in product design especially from the perspective of a large northeastern mutual company which has recently entered this market. After each speaker, we'll have discussion and comments from the other speakers here at the table, and then we'll open it up to the audience.

MR. GARY DAHLMAN: A very large volume of term insurance has been written since the early 1970's, particularly in the last few years. Premium rates have plummeted, as we have seen sharply increased competition, the introduction of select and ultimate premium rates along with reentry products, and the development of non-smoker/preferred risk underwriting categories. Many actuaries have been skeptical about these developments and have questioned how companies can write such business profitably. In recent months, both reinsurers and direct writers have spoken out publicly concerning their mortality and persistency experience, and for the most part, the actual experience seems to lend support to those who expressed skepticism earlier that very low priced term products with select and ultimate premium schedules, particularly if sold in the highly competitive brokerage market, could be written profitably. Later in this session, we hope that many of you in the audience will share your company's experience with competitive term insurance products.

#### Mortality Experience

When select and ultimate premium rate structures and reentry plans were first introduced, there was virtually no prior experience from which to develop pricing mortality assumptions. Even today, there is very little hard data available. The Society does not prepare studies of renewable term insurance mortality by policy year, although some companies writing attained age ART plans for a number of years have indicated that mortality does indeed deteriorate in renewal years due to antiselection. In at least some cases, actuaries pricing select and ultimate premium products and re-entry products have attempted to anticipate this excess mortality by assuming that all or nearly all of those who lapsed were in good health and that the expected mortality of persisters gradually deteriorated. This process can lead to extremely high levels of mortality in the later renewal years and make pricing very difficult on products of this type.

As mentioned earlier, the Society has not published mortality studies on renewable term insurance. Mortality rates on large amount policies are studied every five years or so, and while earlier studies suggested that there had been excess mortality on larger policies, in more recent years the studies indicated that the amount of this extra mortality had been diminishing. However, indications are that this trend might reverse itself in a few years when studies are published reflecting the recent experience on large amount term insurance policies.

On a more positive note, the Society's annual mortality studies on standard ordinary insurance (which includes term insurance) have shown sharply decreasing actual to expected ratios over the past ten years.

RATIOS OF ACTUAL TO EXPECTED MORTALITY

FOR INSURED LIVES

BASED ON 1965-70 MORTALITY TABLES

| Period  | Select Period |             | Ultimate Period                  |
|---------|---------------|-------------|----------------------------------|
|         | Medical       | Non-Medical | Medical and Non-Medical Combined |
| 1972-73 | 92.8%         | 102.2%      | 93.8%                            |
| 1973-74 | 87.9          | 99.1        | 93.4                             |
| 1974-75 | 85.1          | 94.9        | 87.1                             |
| 1975-76 | 80.9          | 88.5        | 85.0                             |
| 1976-77 | 75.5          | 87.9        | 82.0                             |
| 1977-78 | 75.0          | 85.9        | 80.5                             |
| 1978-79 | 68.7          | 84.9        | 77.0                             |

The first slide shows these ratios for the period from 1972 to 1979 policy anniversaries. This rapidly improving mortality experience has been discussed at recent Society meetings, and we will not cover the subject in depth at today's session. Suffice it to say, however, that the improving mortality experience may well have poured fuel on the fire of the intense term insurance rate competition that has existed the past several years. Continuing improvement in the underlying mortality experience on insured lives, to the extent such improvement has not already been anticipated in pricing assumptions, will at least partially offset the deterioration resulting from antiselection upon renewal.

Very little credible mortality data has been released by individual companies. Our moderator did comment on the experience of his company's reinsurance division at the recent joint meeting of the Society's Reinsurance and Product Development Sections.

AUL REINSURANCE

ACTUAL TO EXPECTED MORTALITY RATIOS

FOR YEARS 1977-1982

| Year | Actual to Expected Mortality Ratio |
|------|------------------------------------|
| 1977 | 96%                                |
| 1978 | 93                                 |
| 1979 | 88                                 |
| 1980 | 125                                |
| 1981 | 126                                |
| 1982 | 121                                |

The second slide shows actual to expected mortality ratios for American United Life's reinsurance division for the years 1977 through 1982. As you can see, mortality had been on an improving trend through 1979; however, the Company's mortality experience has worsened considerably during the last three years.

## AUL REINSURANCE

## ACTUAL TO EXPECTED MORTALITY RATIOS

## BY DURATION FOR YEARS 1980-1982

| <u>Duration</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> |
|-----------------|-------------|-------------|-------------|
| 1               | 158%        | 267%        | 79%         |
| 2               | 125         | 123         | 73          |
| 3               | 77          | 80          | 144         |
| 4+              | 72          | 79          | 101         |
| All Durations   | 95%         | 112%        | 100%        |

The next slide shows actual to expected mortality ratios by duration for the years 1980, 1981, and 1982. Please note that the data base is different and the overall mortality ratios shown in this slide are not identical to those on the previous slide. When American United saw what was happening to its mortality experience, the company decided to reverse the trend to more liberalized underwriting practices and in 1981 proceeded to tighten underwriting requirements, particularly on term plans with select and ultimate premium schedules. Although the volume of data is not sufficient to make the figures fully credible, the 1982 results seem to reflect the impact of this decision with the mortality rates in early policy years improving considerably while the later policy years still reflect the runoff of business underwritten in earlier years.

## REINSURANCE MORTALITY

## FOR THE THREE LEADING CAUSES

## OF DEATH 1980-1982

BY NUMBER OF LIVES

|                | <u>1980</u> | <u>1981</u> | <u>1982</u> |
|----------------|-------------|-------------|-------------|
| Heart          | 49%         | 35%         | 32%         |
| Cancer         | 18          | 22          | 28          |
| Violent Death* | <u>15</u>   | <u>22</u>   | <u>15</u>   |
| Total          | 82%         | 79%         | 75%         |

## TERM INSURANCE

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### BY TOTAL FACE AMOUNT OF DEATH BENEFIT

|                | <u>1980</u> | <u>1981</u> | <u>1982</u> |
|----------------|-------------|-------------|-------------|
| Violent Death* | 37%         | 35%         | 37%         |
| Heart          | 33          | 28          | 28          |
| Cancer         | <u>19</u>   | <u>23</u>   | <u>25</u>   |
| <br>Total      | <br>89%     | <br>86%     | <br>90%     |

\*Violent Deaths Include:

Auto, Airplane and Other Accidents  
Homicides and Suicides

The next slide shows the experience of American United's reinsurance division by cause of death. When measured by number of lives, the data shown is not out of line with expected results. However, when measured by face amount, the percentages for the violent death category jump sharply, and this has led American United to the tentative conclusion that speculation may, in some cases, be motivating the purchase of very low rate term insurance products. American United's experience includes a number of violent deaths on very large policies, and according to Steve, if the excess claims from the violent deaths are removed from the 1980 through 1982 data, the Company would have experienced acceptable mortality ratios.

One caution to keep in mind when interpreting mortality experience on term insurance plans is that for most companies, expected mortality is no longer simply a percentage of the 1965-70 intercompany table. The overall improvements in mortality noted earlier, renewal antiselection on plans with select and ultimate premium rates, and the shift to non-smoker/preferred risk underwriting categories has resulted in a proliferation of pricing mortality assumptions against which actual experience should be measured.

### Persistency Experience

Let's now look at the persistency experience that has been emerging on competitive term products, especially those with select and ultimate premium rates. In contrast to the scarcity of meaningful mortality data, there has been considerable discussion in recent months of the lapse rates being experienced, both by direct writers and reinsurers. Unfortunately, the experience reported so far has been almost uniformly bad. Perhaps this is because only those companies with bad lapse experience have been speaking out.

As you might expect, due to the wide range in product design and distribution systems, there is a good deal of variance in lapse experience from company to company. However, there seem to be some common threads running through most of the experience that has been reported to date. This includes:

- .Higher lapse rates than assumed in the pricing process, sometimes much higher. A number of companies have experienced moderate lapse

rates, say 15 to 20%, in the first year or two and then much higher lapse rates, such as 25 to 30%, or even higher, in subsequent policy years. Other companies have experienced high and almost level lapse rates right from the first policy year.

.Higher lapse rates on the larger size cases.

.Higher lapse rates at the older issue ages.

These latter two observations almost fly in the face of conventional actuarial wisdom which, prior to the highly competitive term phenomenon, generally regarded the older issue ages and the larger policy sizes favorably in terms of expected lapse experience.

Why has persistency experience been so poor on competitive term insurance products? A great deal has been written and spoken about faulty product design, particularly with regard to select and ultimate premium rate structures and reentry products. This has undoubtedly contributed significantly to the high lapses that have been experienced, but, in my opinion, an equally important contributor has been the agency compensation structure and the general financial strain and turmoil the agency system is now undergoing. It is difficult for an agent or broker not to rewrite a term policy if he can secure a lower rate for his client, earn a new first year commission for himself, and provide a free physical exam in the process. In the more competitive markets, agents and brokers have become adept at finding companies with low premiums, high commissions, and aggressive underwriting for particular risks.

A few companies have started to move in the direction of level, or more level, commissions on competitive term products. In some cases, the level commissions are used only with certain agents or brokers who have poor persistency experience or on policies issued to individuals who have a history of replacement every few years. A few companies have begun to write competitive term plans on a level commission basis only. One of our clients is experimenting with allowing individual agents to select between the typical high/low commission schedule and level commissions with the two choices structured to encourage the selection of level commissions.

In addition to faulty product design and inappropriate agent compensation incentives, I feel that rapidly reducing premium rates over the past few years have contributed significantly to the heavy lapses that have been experienced. Premium rate reductions have resulted from increased competition at all levels, improvements in insured mortality experience during the 1970's, the introduction of select and ultimate premiums, and the move towards non-smoker/preferred risk underwriting classes. With such rapid decreases in premium rates, what responsible agent or broker would not rewrite his healthy client's term insurance policy from time to time as the rates drop, especially when he earns first year commissions again in doing so?

For the past several years we have wondered how term insurance premium rates could go any lower, yet they have continued their downward trend. There are indications, however, given the high lapses companies have experienced and the anticipated change in the handling of the net level election for federal income tax purposes, that term insurance premium

rates may have bottomed out or nearly bottomed out. If so, the worst may be over with respect to excessive lapses, and we may see lapse rates stabilized at relatively high, but perhaps at least marginally acceptable, levels.

#### Impact on Profitability

What has been the impact of the recent mortality and persistency experience on profitability? Looking first at business already on the books, it is obviously running off rapidly. In the absence of special reinsurance arrangements, the insurance company typically incurs a loss as the business is issued and hopes to recover that loss and make a reasonable overall profit out of gains expected to be earned in renewal years. Most companies may still be earning profits in renewal years on their competitive term products; however, with such high loss rates, it is probable that in many cases, the initial first year investment for a block of business will never be recovered, or, at best, the ultimate profitability will be much less than anticipated when the business was issued.

On the other hand, it is likely that the business remaining in force will have considerably higher mortality than in many cases was assumed in the pricing process. This could result in further reduced renewal profits or even losses in later renewal years. Where losses from excess mortality are anticipated it would be prudent to increase reserves, either out of current profits or from surplus, in order to avoid negative earnings down the road.

What about the profitability on business currently being issued if priced under realistic mortality and lapse assumptions? I for one have not found any way to price a term product with competitive premiums using the level of lapse assumptions that many companies are reporting and the renewal mortality assumptions that many actuaries feel are reasonable. What must be done then? My co-panelists will deal with this question in more detail in a few minutes; however, from the point of view of the impact of mortality and persistency on pricing, it seems to me that underwriting changes (particularly financial underwriting), product design changes, and agent compensation changes, all of which are intended to encourage better persistency, are essential. And better persistency will have a favorable impact on renewal mortality problems.

I am also of the opinion that it will be difficult to generate acceptable profit margins except in market segments where the insurer has at least some minimal control over its distribution system. This obviously will vary from company to company.

#### Amortization of GAAP Acquisition Expenses

Finally, let's briefly look at the amortization of GAAP deferred acquisition expenses on term insurance business issued over the last several years. Many companies will be faced with recoverability problems. Those companies that use a factor approach to determine the deferred acquisition expense asset have this asset adjusted automatically

each year as the business runs off the books. However, these companies must still deal with the problem of whether or not the remaining deferred acquisition expense asset is recoverable, given current best estimate assumptions with respect to mortality and lapse.

Companies using the worksheet approach to amortizing the deferred acquisition expense asset face a somewhat different problem since there may or may not be an automatic adjustment for higher than assumed lapses. This makes the recoverability test even more crucial since the entire remaining deferred acquisition expense asset must be recovered from the smaller than expected volume of business still in force. This could lead to an adjustment in the originally anticipated runoff of deferred acquisition expense assets.

However, keep in mind that GAAP recoverability is by line of business and not necessarily by plan of insurance. For some companies, competitive term insurance products may by themselves constitute a line of business, while in other companies, it may be possible to use margins from other individual life products as an offset to the competitive term products and thus avoid the necessity of loss recognition.

MR. BRUCE BARTON\*: We have done a number of studies for select and ultimate type products or graded premium whole life type products, particularly with regard to lapse experience. And not only are the lapses much higher than was originally anticipated, but we have noticed a trend for the lapses to increase by duration. As an illustrative example, our experience would indicate that lapses, in general, would be something like this: first duration - 25%, second duration - 30%, third duration - 35%, and then perhaps a slight turnaround gradually going back down to some level, perhaps 25% level, starting in the fifth duration or so. No one has experience beyond four or five durations so it's speculation as to what will happen in later durations, but it's not particularly encouraging that the lapses go up by duration. It may be a trend that lapses may stay at higher levels than anticipated. So if your recent experience is bad in early durations, it may get worse before it gets better.

MR. RADCLIFFE: Thank you, Bruce. I would concur with your observations on select and ultimate products. With regard to other term products, lapses tend to remain level by duration.

MR. DAHLMAN: It has been my experience that lapse rates are higher on large amount policies, particularly those coming from the brokerage marketplace. And to some extent, that is the type of business that the reinsurers see - business ceded from companies with a variety of retentions. Some of our clients who don't operate in that highly competitive marketplace have experienced lower lapse rates than Bruce indicated. In the smaller amount sizes under 100,000, the traditional pattern of lapse rates decreasing by policy duration has still been present in some cases.

\*Mr. Barton, not a member of the Society, is Assistant Vice President and Director, Reinsurance Products, at Lincoln National, Fort Wayne, Indiana



MR. THOMAS SKIFF: We have been mass marketing individual life and semi-individual life on a mass marketed basis for several years. Our experience mortality has been consistently within what we have expected. As a matter of fact, we continually improve our mortality assumptions and with lapses at about a level 10 to 12% per year. I note that historically we have been selling policy sizes under \$50,000 and premium rates were not that competitive compared to agent produced fully underwritten premiums. It's a different market.

MR. BARTON: I visited with an actuary for a company recently who has been writing a graded premium whole life plan with select and ultimate premium rates for about 15 to 18 months now. Their policy has a level commission schedule. He priced the product using a 15% level lapse assumption, and while, obviously, it's still too early to reach any definitive conclusions, his first year lapse experience so far has been just under 12%. The volume of business issued for this company has been sizable. Level commissions in this case didn't deter the agents from selling the product.

MR. RADCLIFFE: Some companies have felt that the rewrite provision should blunt the effect of high lapses on their policy and have gone so far as to offer an annual rewrite provision in the hope that this would be the ultimate lapse prevention. In our experience, a rewrite provision does not deter the lapse problem. People do not use the rewrite provision the way the designers of the plan had anticipated. Instead, policyholders continue to shop for the best rate when they review their insurance needs.

MR. SKIFF: What did you change about your underwriting to change your mortality when the extra mortality was coming from violent death?

MR. RADCLIFFE: Well, our underwriting was quite aggressive in what we called an expanded credit program. We used about everything we could to apply credits against otherwise ratable lives. When we tightened our underwriting rules, we reduced the amount of items that we would give credits on and we reduced the amounts of the credits on those that we did give. In addition, we became very cautious on financial underwriting. Our underwriters have always used financial underwriting, but I think they are more conservative now. They are a lot tougher on the big policies and want to see audited financial statements on large amounts of insurance. I think that had some effect.

MR. BARTON: I was recently at a Canadian Reinsurance conference meeting. On a presentation on term insurance, they gave a brief example of a multiple discounting approach to mortality and questioned whether there was some double counting in the discounts. They took a basic mortality rate at age 45 and then discounted it for all of the various factors that one could apply; it was taken from one of the recent Society studies. Mortality was projected to the current date at some assumed rate. They were talking mainly about the large term insurance market. A discount was given for medical mortality as opposed to aggregate or non-med or para-med. A non-smoker discount was given because they were interested in non-smokers for the large term market. A large policy discount was given because of recent Society of Actuary studies. The resulting rate was about 40% of the initial rate. The question they were asking was, "Is there double counting in one, two, or maybe all of these factors? If you

are projecting mortality is it because of the increase in non-smokers? Are the results of medical mortality related also to non-smoking? Is the large policy study credible or should mortality actually be higher instead of being discounted etc., etc.?" Can you comment on that, particularly the level of mortality, that is being used in the large term insurance market?

MR. DAHLMAN: Well, I don't think I can answer the question other than to second your comment of the potential for double discounting. Another example with relation to the large amount study is speculation that of people who purchase large amount policies, there is a lower percentage of smokers, more non-smokers in that category. We have used similar type approach in our work in coming up with mortality assumptions for pricing. I agree with you, it is important to avoid double discounting.

MR. HAROLD INGRAHAM: I have an intuitive feeling that the degree of honesty in reporting non-smoking probably goes down as the size goes up, particularly for a banding over 1/2 million or a million, but I can't prove it. Regarding re-entry, a number of very large producers openly admit that they aggressively annually re-enter their policyholders, most of whom can pass physicals, and their level commission consists of about 70 or 80% a year, not 10 to 15%. Lists from these large producers are quite sophisticated and evidently updated every month. There are 20 to 25 low-cost term companies on the list. This is something that, if you don't have a controlled field force and are relying heavily on brokerage business, really produces the problems that we are addressing.

MR. MICHAEL WINN: Steve, I think you were prodding for something good to say about the term insurance market. In my company we looked for quite some time in our reinsurance area about what's good about the marketplace. One area would be the life company that is owned by a property and casualty company where the P&C agents are accustomed to level commissions and the sale is made as a package sale. That may be one area where the level of persistency is not out of line. Another area may be insurance sold by brokerage houses that are selling stocks, bonds, and other financial instruments. However, we don't have enough clients in those particular areas to go in and bring up their experience to see if, in fact, our speculation is correct and we have decided not to use that type of speculation in our own pricing for those markets.

MR. RADCLIFFE: Now that you have heard about some of the experience that has developed on the select and ultimate products, we will review the effect that it has on cost considerations. To start our analysis, we will examine a moderately priced Graded Premium Whole Life policy. The first slide shows the gross premiums charged on a typical policy offered today for a preferred risk. The graph illustrates that the premiums will increase between 18% and 20% per year over ten years. By the end of ten years, the premiums are sometimes five to six times higher than the initial premium.

With select and ultimate premiums, I think the problem is quite simple. We are offering products at below cost in order to entice policyholders to buy our products. The hope is that once they buy this product, they will stay with us in the later years when the product has premiums that are much above cost. This strategy cannot work when we make it so easy for

the policyholders, agents, and brokers to continue to buy our products at below cost. The high lapse rates are caused by the buying public's natural motivation to continually seek out "bargain" rates.

The second slide shows the financial effect of high lapse rates. It illustrates the profits as a percentage of premium over ten years for the Graded Premium Whole Life product that we just saw. It represents an aggregate of both the preferred and non-preferred lives. The profits are shown for three different lapse assumptions. The low lapse assumption is based on the LIMRA lapse rates of a few years ago which start at 15% and grade down to a level 10% at later durations. The moderate lapse rates are 25% first year, 20% second year, and a level 15% thereafter. High lapse rates are 40% first year, 30% second year, 25% third year, and 20% thereafter. These results are representative of a direct writing company's policy at ages 35 and 55. I might mention that the high lapse assumption could well be exactly the reverse of what has been assumed. In other words, we have seen certain select and ultimate products that have lapse rates of 20% in the first year, 25% in the second year, 30% in the third year and a level 40% thereafter.

At any rate, the slide demonstrates the tremendous impact of high lapses on profitability, especially at the younger ages. For age 55, the profit goes from 11% of premium to a loss of 2% of premium. For age 35, the profit goes from 7% of premium to a loss of 21% of premium. The impact is much higher on age 35 because of the high fixed expenses against a very low premium. I might mention that in both cases the initial surplus drain is substantial and can be upwards of 200% of premium. This is why the product is so vulnerable to poor lapses - the high surplus strain is not recovered.

In a recent article by Bob Shapiro and John Snyder they analyzed the impact of high lapsation on mortality. They made quite a convincing theoretical argument that with high lapses the mortality would deteriorate. None of the analyses that I have shown you so far has made any adjustment for possible deterioration. Just a few year ago, some companies even built mortality improvement factors into their pricing to come up with competitive rates. In these times, it is probably more appropriate to put in some mortality disimprovement for the later durations when pricing this type of policy.

What are the answers to some of these problems caused by lapses? Some have suggested that level commissions is the answer. I believe that levelling commissions is part of the answer but will not work by itself. The product design has to be changed. We must develop products that are more lapse resistant. Some examples of these kind of products are: deposit term, renewable term plans with a high first year policy fee, or possibly low premium low cash value whole life products. The key is to reduce the initial surplus strain on the product and then make sure that the difference between the cash value less the asset share value remains small in the later durations.

The third slide shows the effect of reinsurance on the profitability of the Graded Premium Whole Life product. We have assumed that one-third of the business written is retained and the remainder is reinsured. The allowances for the good quote are 100% in the first year, 30% in the

second year, and 20% in the third and later durations. The allowances for the super quote are 130% in the first year, 50% in the second year, and 20% in the third and later durations. The solid line for no reinsurance represents the aggregate profit for all ages combined on the last graph that we just reviewed. The profitability starts at about 8% and deteriorates to a loss of 11% at high lapse assumptions where there is no reinsurance. With a good reinsurance quote, there is a cost associated with those allowances for the low lapse assumption but the effect of lapses on profit to the ceding company is moderated significantly. Finally, with a super quote, there is a small cost with the low lapse assumption and the lapse risk is almost entirely shifted to the reinsurer. As a matter of fact, there are certain rare quotes in the marketplace that will probably guarantee profitability through this entire graph. In this case, all risk has been shifted to the reinsurer. These types of quotes no longer exist in the current marketplace to the best of my knowledge. As a matter of fact, many reinsurers have followed AUL's lead and will not even offer a quote on this type of product.

With respect to the profitability of reinsurance, let me show you an illustration of a hypothetical financial result from the reinsurer's side. I should emphasize that this example does not represent any actual situation but is strictly a theoretical example.

The fourth slide shows a summary of financial results for a block of \$1 billion of coinsurance of Graded Premium Whole Life. The numbers are shown in millions of dollars and represent the aggregate fund of all ages and of preferred and non-preferred lives. This coinsurance does not necessarily relate to the reinsurance that I showed in the previous slides. It represents a very aggressive quote that was one of the final straws in AUL's decision not to quote on this type of product at the end of last summer. Also, the lapse assumptions for low and moderate lapses are somewhat different from those shown in previous slides. However, the intent of the slide is to show my view of reinsurance pricing on this product which I believe is actuarially unsound. The aggregate mortality of both preferred and non-preferred lives represents about 77% of the 1965-70 Select and Ultimate Table. All figures represent amounts that have been discounted for interest at 7.5%. The present value of all expenses is around \$2 million for this block of business which may seem somewhat high and actually would be too high if all of this business came from one account. However, it does represent the average expense level for our Reinsurance Division. Even if we took out all of the expenses, the product would remain unprofitable. Mortality would have to decrease by one-third to make the product break even. In my opinion, this is not very likely in light of the fact that we have seen mortality ratios for the reinsurance industry actually increase for the past three years. These results do not reflect any special tax advantages or 818(c) effects. The pricing of the product is very straightforward. There are no "tricky" features to evaluate. Mortality and lapses are the only key assumptions and in our opinion, recent prices have been set too low to cover mortality.

For low lapses, the average loss is \$.70 per thousand of in-force per year or 15% of the total premium. It shows that we can expect to have 56 claims with an average face amount of \$250,000. We need only 44 to break even. Recent experience over the last two years indicates that we may get as many as 65 claims.

For moderate lapses, the losses jump to \$1.15 per thousand per year or 38% of premium. Notice that the premium revenue is cut in half with higher lapses. The allowances, on the other hand, do not drop as much as the premium because of the high front end nature of these allowances. Expenses may drop some but not enough to show up in the illustration. The claims are shown to drop in proportion to the premiums. However, no one really knows what the mortality will be with high lapse rates. The very worst scenario would indicate that you may have as many claims with high lapses as you do with low lapses if only the good lives are the ones who terminate. This would indicate a potential for another \$7 million of loss on the block. In order to break even with high lapses, mortality would have to decrease to \$3 million. This is an unrealistic expectation.

Many ceding companies have been surprised to find that they can shift so much risk to the reinsurer as was illustrated in the last graph. It would seem unreasonable to expect that a company could design a product on a break even basis and then realize that after reinsurance they had a guaranteed profit. Simple logic and common sense would tell you that this is actuarially unsound and cannot be a long term proposition. It is obvious that if the ceding company had planned to break even without reinsurance, the reinsurer must be taking a high risk of loss in order to guarantee the ceding company a profit. Many ceding companies have jumped at this opportunity and have reduced their own retention, even to zero in some cases, in order to freeze the profit. However, there is a long term risk to this strategy. The reinsurers will not take on losses forever and at some point, this unsound pricing will become evident to the reinsurer and the treaty will be cancelled. This may leave the ceding company in the uncomfortable position of not being able to find reinsurance to cover the product and it will have to be pulled from the marketplace or substantially repriced. If the major thrust of your marketing strategies are built on this kind of arrangement, you could be vulnerable to an abrupt change in plans that are controlled by the reinsurer and not by your own marketing department.

The marketplace is changing as the reinsurers react to the losses that have emerged from this product over the past couple of years. The evidence is spotty at best, but there are some signs that the marketplace will become more rational in the years ahead. The hard economic facts of supply and demand have created some irrational and inequitable results. There is nothing fair or logical about raw competition. I do not believe that either the reinsurers or the ceding companies are particularly to blame for the problems that have been created in the past few years. It is not a moral issue of right or wrong, it is simply a matter of having too many suppliers offering the same type of product where price has been the only determining factor in the competing process. This is true for both the direct companies trying to sell their policies and the reinsurers trying to sell their services. In this way, our problems have been quite similar to the problems that the airlines have been struggling with over the past few years.

The next topic that we will discuss is the mortality assumptions, especially with regard to the smoker/non-smoker distinction. I have said before and continue to believe it is wrong for the industry to extrapolate the experience of two companies to the entire industry in developing smoker and non-smoker mortality assumptions.

On slide 5, I have shown some of the factors that should cause the experience for the total industry to be different from that of the published smoker/non-smoker mortality statistics from State Mutual and Phoenix Mutual. The factors are:

1. The Sales Force

State Mutual and Phoenix Mutual both have highly trained and controlled field forces. On the other hand, the total industry now has a heavy preponderance of brokers and PPGA's that may not be as well trained and are obviously not under the control of any home office. This situation could create some problems in getting accurate responses to the non-smoking questions on the application.

2. The Premium Discount for Non-Smoking

The statistics underlying the State Mutual/Phoenix Mutual experience reflected a relatively small differential between smoker and non-smoker premium rates. Today the industry reflects substantial differentials in the smoker and non-smoker premiums. This provides a much higher motivation to be untruthful on the application.

3. Truthfulness on the Application

In the State Mutual study of non-smoker mortality, a sample test proved that the applicants were 98% truthful when answering the questions with regard to smoking habits. I question whether the rate of truthfulness is as great for the total industry as it was for State Mutual.

Let me give you an example that makes us at AUL quite concerned about the truthfulness on applications. Recently, we received notice on a \$1 million claim for a policy that had been issued two years and four months before the date of death. The cause of death was malarial hepatitis. We investigated the claim because our Medical Director said that it was extremely rare for this disease to be terminal. On further investigation of the claim, we found that the applicant was ratable, but because of credits given for non-smoking, we issued the policy standard. We did this in spite of the fact that there was emphysema noted in the underwriting papers. During the investigation of the claim, we found that the man smoked two packs of cigarettes per day and drank over ten glasses of whiskey per day. He died of malarial hepatitis because his liver, which was damaged by alcohol, could not fight off the disease. Since the policy was past the contestable period, we had to pay the claim. Our lawyers felt that the misrepresentation on the smoking questions did not constitute fraud and we would not be successful denying the claim.

Since it appears that we cannot protect ourselves at claim time from misrepresentations on the non-smoking questions, we will have to be more careful at the time of underwriting. We have considered five ways to check on the answers to the non-smoking question:

1. Telephone Checks from the Home Office Directly to the Applicant

We have heard that some companies have found that policyholders are

quite truthful when contacted directly. Telephone checks may be the cheapest of all of the alternatives.

2. Inspection Reports

These accomplish the same objective as the telephone checks but are more expensive.

3. Urine Tests

These tests are probably the most popular at the current time but have proved not to be a completely reliable source for detecting nicotine.

4. Saliva Tests

These tests are more reliable than urine tests but are still experimental in nature and not widely accepted.

5. Statistical Tests

Some companies keep statistics on agencies to watch for the proportion of non-smoker applications. A high proportion of non-smokers should be checked out to see if it is part of a marketing strategy or sloppy procedures in filling out the application.

In my opinion, non-smoker mortality assumptions are too low. We have tested some rates that must be assuming 35-40% of the 1965-70 Table for non-smokers. This rate is getting very close to a rate to cover just accidental deaths at some ages.

The current dilemma on the smoking/non-smoking rate distinction is as follows: On the one hand, the discount for non-smokers or preferred lives must be large enough to be competitive and attract the super healthy lives. Obviously aggregate rates will soon become extinct. A company now offering aggregate rates only is probably attracting only the worst risks of the standard class. On the other hand, a large differential between smoker and non-smoker rates will put increased pressure on agents and policyholders to be dishonest on the application. Furthermore, if the non-smoking mortality assumption is forced too low, the premium rates will become actuarially unsound. Pricing actuaries must now perform a balancing act between these two extremes in order to attract the right mix of business.

Let us turn for a moment to the question of 818(c) reserves. The following is a list of considerations for using the 818(c) election for selection and ultimate products:

1. The first question to resolve is whether to use \$5.00 or \$19.00 per thousand as the reserve approximation factor. Most companies are using \$5.00 per thousand on term products (including renewable term) and are using \$19.00 on Graded Premium Whole Life.
2. When you use \$19.00 per thousand as an 818(c) reserve, it can quickly eliminate any tax base that you may have with a large volume of

sales. After the tax base has been eliminated, any further 818(c) reserves will have no marginal effect.

3. In recent years, the life insurance industry has experienced low underwriting gains from insurance operations. This produces a smaller tax base for which the 818(c) reserves can be used as an offset.
4. During its deliberations on TEFRA, the Senate Finance Committee said that no 818(c) adjustments should be allowed unless policies developed cash values in early durations. This indicates that the future tax law for life insurance will probably not be as favorable on 818(c) in the future as it has been in the past.
5. The Beck-Rolland tax compromise eliminated 818(c) as a tax deduction. Although this proposal is no longer operable, it does indicate what might come out of any future industry compromise. I might mention in passing that the Beck-Rolland proposal also "walled off" any past 818(c) deductions. This would have been a bonanza for companies writing large amounts of Graded Premium Whole Life. The entire 818(c) reserve would have been forgiven and would not have re-emerged as taxable gain in future years. The tax benefit for existing business caused by this proposal would have been substantial.
6. High lapse rates on the Graded Premium Whole Life product create taxable gain in future years at an accelerated pace. The means that you have to sell more and more of the product each year to keep the 818(c) on terminating policies from emerging as taxable gain.
7. The 818(c) deduction is probably worth between \$.50 to \$.75 per thousand per year. At issue this is worth about \$2.50 to \$3.50 per thousand of face amount issued.

818(c) should no longer be a major factor in the pricing of term insurance. From the considerations above, it definitely should not be permanent enough to be considered as a pricing factor. We may continue to receive 818(c) benefits for a few years but not for the ten or fifteen years that our asset shares cover.

The final topic that I will discuss is deficiency reserves. I can be brief on this topic because deficiency reserves have not been much of a problem in the last couple of years. Most companies have offered non-guaranteed premiums or Graded Premium Whole Life products to avoid deficiency reserves.

The state insurance departments are still quite confused on this issue, and there is a wide variety of requirements in the various departments. Many departments have no clear policy on deficiency reserves and other departments are willing to negotiate. This uncertain regulatory environment makes it difficult to develop an actuarial rule for holding deficiency reserves, especially for reinsurers who accept business from companies all over the country.

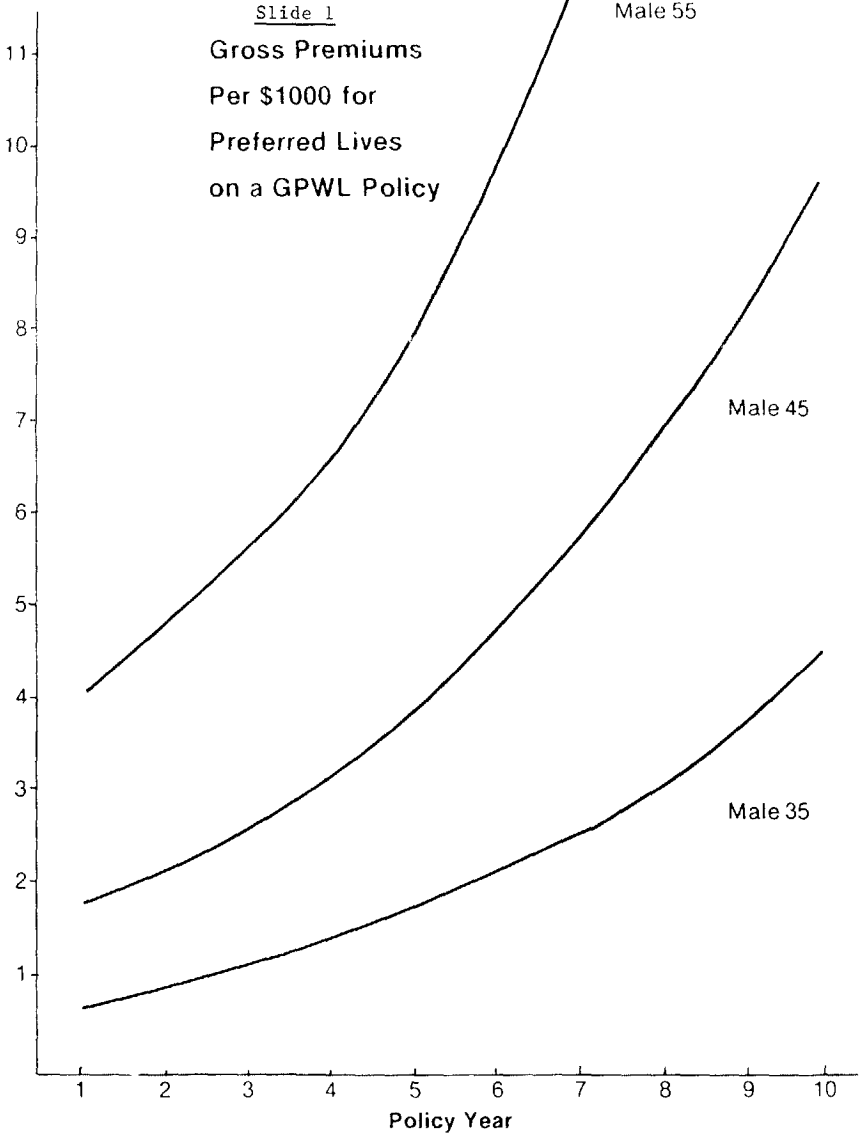
In the event that you do need to set up deficiency reserves, it is most likely going to cost money to cede them off. Reinsurers used to accept



deficiency reserves at no charge. However, it is more probable that it will now cost you 3-4% of the surplus relief as a charge for taking the deficiency reserves. As an alternative, some reinsurers charge 2% of the reinsurance premium to hold deficiency reserves.

My recommendation is that you should be careful in your product design to avoid holding deficiency reserves. Since the state insurance departments are so unclear on this issue, there is so much room for creativity on this matter.

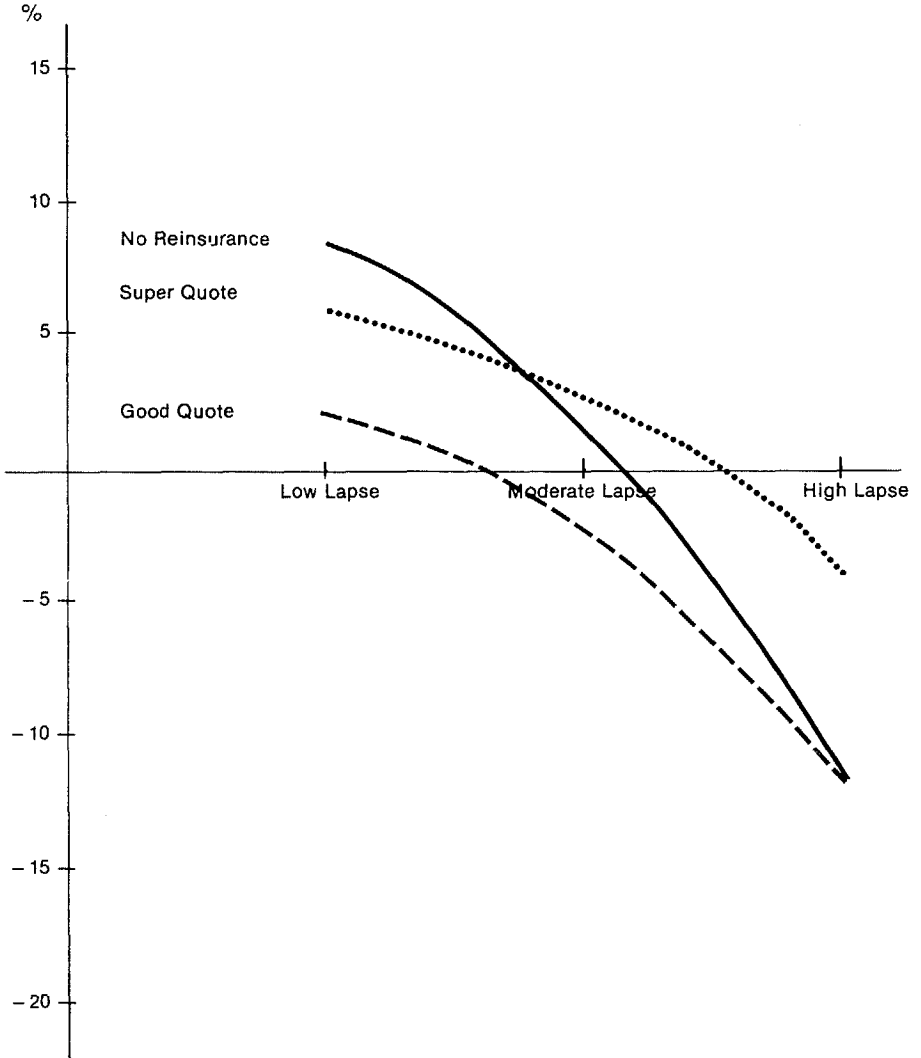
Premiums  
in \$  
per \$1000



Slide 2

**GPWL**

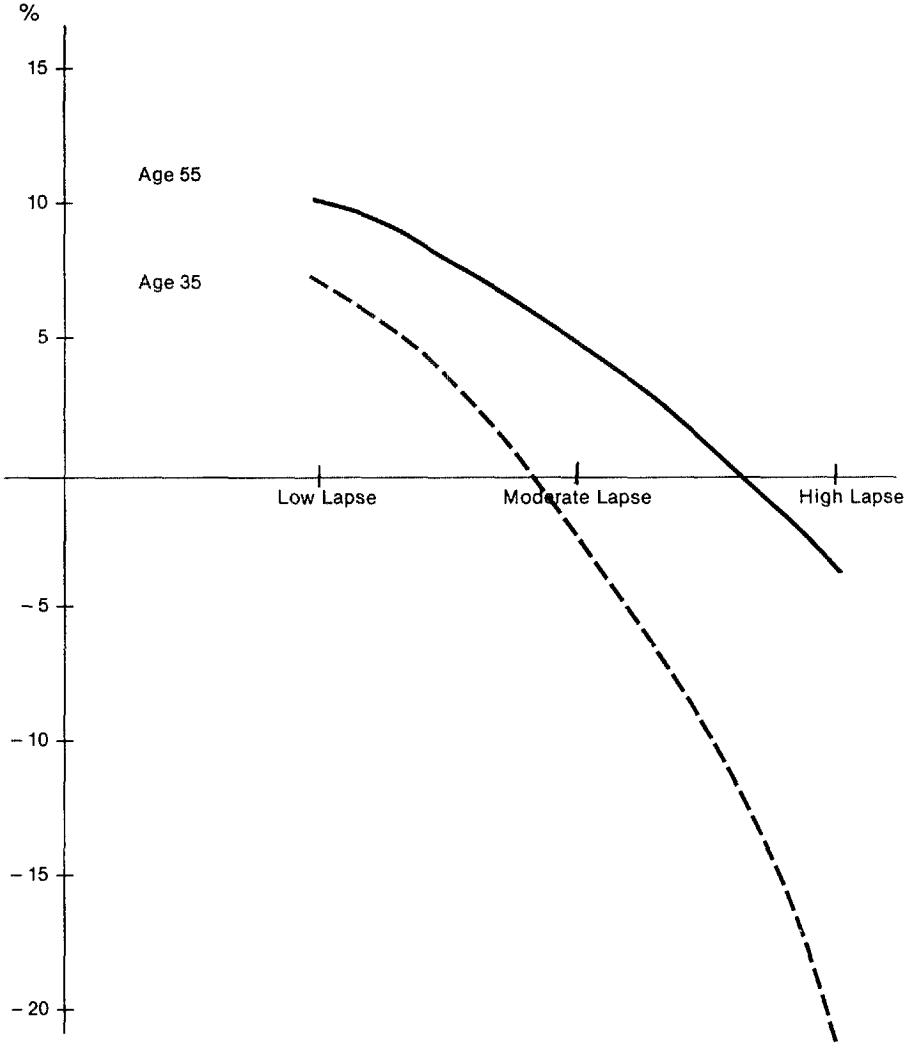
**Total Profits as a  
Percent of Premium over 10 years  
WITH REINSURANCE**



Slide 3

**GPWL**

**Total Profits as a  
Percent of Premium over 10 years**



TERM INSURANCE

895

SLIDE 4

SUMMARY OF

FINANCIAL RESULTS OVER 20 YEARS

FOR A BLOCK OF \$1 BILLION OF

COINSURANCE OF GPWL

IN MILLIONS OF DOLLARS

|                        | <u>Low<br/>Lapses</u> | <u>Moderate<br/>Lapses</u> |
|------------------------|-----------------------|----------------------------|
| Gross Premium          | \$ 20                 | \$ 10                      |
| Allowances             | 7                     | 5                          |
| Expenses               | 2                     | 2                          |
| Claims                 | <u>14</u>             | <u>7</u>                   |
| Net Loss               | \$ (3)                | \$ (4)                     |
| <br>                   |                       |                            |
| Profit per \$1000      | \$ (.70)              | \$ (1.15)                  |
| Profit per \$1 Premium | \$ (.16)              | \$ (.38)                   |
| <br>                   |                       |                            |
| Average size           | \$250M                | \$250M                     |
| Lapse                  | 1st - 20%             | 1st - 25%                  |
|                        | 2+ - 15%              | 2+ - 25%                   |

SLIDE 5

## CONSIDERATIONS FOR SMOKER/NON-SMOKER

## MORTALITY ASSUMPTIONS

| <u>FACTOR</u>                  | <u>SM/PM<br/>STATISTICS</u>                     | <u>TOTAL<br/>INDUSTRY</u>            |
|--------------------------------|---|--------------------------------------|
| Sales Force                    | Highly Trained<br>and Controlled<br>Field Force | Heavy<br>Preponderance<br>of Brokers |
| Premium Discount               | Small   | Substantial                          |
| Truthfulness on<br>Application | 98% Truthful                                    | ?                                    |

MR. INGRAHAM: To reinforce the comment you made on the smoker/non-smoker differential and the problems we are getting into in the high size market by these excessive differentials, I took a look at a rate card of one very competitive low-cost term company. At age 35, the ratio of their smoker to non-smoker rates is 3.4, at age 45, it's 2.8, and at age 55, it's 1.9, clearly a dramatic difference. Also term is really an inflation sensitive product, and I'd be interested in getting audience reaction as to what amount of nondirect expense allocation is being shunted off to the permanent line, insulating the term line. That is, are more expenses being allocated on the per premium basis which favors the term line? And to what extent is the term line bearing its fair share of company overhead?

MR. DAHLMAN: Deficiency reserve problems led to the indeterminate premium approach and both deficiency reserves and tax considerations to the modified premium whole life version. The recent 1980 amendments that have been enacted in over 40 states now are going to ease the deficiency reserve situation. The non-smoker version of the 1980 CSO Table that has been exposed is expected to be adopted by the NAIC in December as a standard for reserves. And actuarial guideline four that calls for additional reserves on renewable term plans has been amended to allow for the 1980 CSO Table with the selection factors. The combination of these two things happening will significantly reduce the deficiency reserve problem. It may make it possible to begin writing the old fashioned type ART plans with guaranteed premiums.

The second area I wanted to comment on is some small and medium size companies who are trying to build a distribution system feel that they need to have a reasonably competitive term insurance product to offer to gain credibility. And as an aside, reasonable means somewhere in the top five. When I am confronted with that situation in dealing with clients, I try to impress on them that we're now talking about business considerations rather than pricing considerations and that this is a management decision rather than an actuarial decision. If they choose to

go this route with a product where they can't obtain their normal pricing profit objective, they should look at the difference, the lower profits, really as an agency building cost rather than as a foregone profit.

MR. RADCLIFFE: If you are building the major thrust of your marketing strategy as a direct company by relying on those super reinsurance quotes that I showed you before, you are taking some risk, a long term risk. The short term gain is obvious. You have a guaranteed profit for the amount you reinsure. You might as well reduce your retention to zero and run with it. But the long-term risk is that the reinsurance is actuarially unsound. Sooner or later, the reinsurer is going to have some experience emerge that he can't handle, and he'll be coming to talk to you to rearrange the reinsurance program. Now your marketing strategy is in the hands of the reinsurer and not in the hands of your marketing department. You are taking a short-term profit but you are offsetting that with a long-term risk of losing control of your marketing plans.

MR. CLIFF OLIVER: In the Canadian Market, we have already seen some developments from reinsurers which has been brought to light by the poor persistency as it has evolved over the past couple of years. Any company trying to build itself on its term insurance operations is simply building castles in the sand. Several reinsurers have already instituted certain persistency measures whereby normal term rates do not apply where replacements are involved. I have a question for the U.S. market. Given 35% first year lapse experience and continuing levels of 25%, it's self-evident that the only answer in the term insurance market is level commissions unless the industry has innate suicidal tendencies. However, there has been great difficulty in proliferating level commissions in Canada, I would say, primarily from the career oriented company for the obvious reasons of financing. The level commissions that have been introduced have been primarily by companies dealing in the brokerage market. I wonder if anybody would comment on what the situation is in the United States? Are level commissions becoming more prevalent?

MR. INGRAHAM: Nobody has the guts to do this. You don't want to be the lead car in the funeral procession. Our agents would say good-bye and sell term insurance with somebody else. Except for one specialty area, our most sophisticated producers are asking us to produce a level commission contract on the order of 5% a year. In my company, 30% of our new business is individual policy pension trusts and most of the remainder is business insurance of one kind or another. What they want here is to establish very low PS58 rates which you can do if you have a term that is sold up and down the size spectrum. This would be a specialty contract with special convertible and renewable features for that market to produce low PS58 costs and is an economic benefit to split dollar markets.

MR. JOHN TILLER: I've seen a number of companies, reinsurance clients, that have tried to come out with a competitive term product and use that as their only new product to bring in agents. They become a term brokerage operation. They don't sell any of the other products. The strategy of using the term as a magnet to draw in agents will work only if you have a portfolio of other good products also. A number of companies have made the mistake of trying to bring in only a competitive term product and they strictly sell term insurance and nothing else.

MR. ROBERT WHITNEY: One of my clients is the A. L. Williams Company, who are known for their tremendous volumes of term insurance and orientation to the replacement market. They have changed their commission practices. They haven't gone to level commissions, but they have moved a great deal of the first year commission into the second year. It hasn't hurt their rate of growth one iota. The reason for moving say 25% of the first year commission into the second year was to make surplus strain more manageable under their tremendous growth rates. It hasn't slowed down sales. We hope it will improve persistency. We've introduced such a strong persistency bonus that it has elements of negative commission rates in the second year. We'll never know, if there is an improvement in persistency, whether it's primarily due to the persistency bonus. This is not level commissions in the brokerage market, but I thought it would be of interest that so much of the first year commission has been moved to the second year, and it hasn't hurt sales one bit.

MR. INGRAHAM: For many years until the early 1970's, New England Life grudgingly condoned the sale of term insurance but would do little to push it. Most of our agents happily sold a form of term insurance called minimum deposit whole life - for which they were, in retrospect, excessively compensated. Our relatively high term rates only served to prove to the agents that the minimum deposit approach was a better buy. Remember also that high term rates in a Linton Yield calculation produce misleadingly high rates of return.

We first introduced a YRT policy in 1973 - in response to an increasingly shrill segment of our field force. The policy that we offered then had aggregate attained age rates, was renewable to age 70, and convertible to age 65. There were no preferred or non-smoker classes, no banding, and no friendly reinsurers to reveal the ultimate pricing secrets. In general, the policy was characterized by fairly high premiums and dividends starting at the end of the third policy year.

Over the next five years, our YRT policies represented about 30% of total non-pension sales by volume. However, by 1978, our YRT was perceived by our agents as being extremely uncompetitive, and my conservatism and, in a few cases, even my ancestry were under attack.

In 1979, we significantly repriced the YRT, introducing non-smoker and smoker classes and with considerable reductions in premiums. These reductions reflected liberalized mortality assumptions, lower profit margins, lower conversion costs, and revised expense allocations which served to shunt more of the expenses allocable to term as a percentage of premium basis. The aggregate attained age rate approach was maintained. Existing standard YRT policyholders, who signed an application amendment stating that they had not smoked within the past year, were given higher dividends essentially equalizing their net payments at attained age with new YRT non-smokers. Similar dividend treatment was accorded the smokers.

At that time, our term lapse experience pretty well paralleled the results of the 1976-1977 LIMRA Term Lapse Study - which showed a 16% first year rate, grading down to less than 10% per year after the fourth policy year.

Incredibly for a short time in 1979, our preferred term rates were among the most competitive in the industry, and we even got a favorable plug in



this regard from Consumer Reports. Our YRT sales in 1979 increased by 136% over 1978 and amounted to 42% of total non-pension sales.

1980 and 1981 were flat sales years for NEL - both for term and permanent. Meanwhile, term rates offered by an increasing number of companies - principally the smaller stocks - sank to incredibly low levels, once again rendering our rates a relative joke in the competitive marketplace.

Our sales were mainly made in smaller amounts (125,000 average size) to younger clients. The larger business-oriented sales were being brokered out by our agents in great quantities to companies such as Federal Kemper, Transamerica, William Penn, Security-Connecticut, and Covenant Life. Even so, our YRT sales in this period crept up to 51% of total non-pension sales - but that to a greater degree reflected field disenchantment with our permanent products than it did any particular enthusiasm with our YRT.

Then in late 1981, we purchased Covenant Life. Our principal reasons for doing so were: (1) to acquire a broadly-licensed stock subsidiary so as to be able to market certain interest-sensitive products on what was then perceived to be a tax-favored basis for stock subsidiaries of mutual companies; (2) to broaden our distribution outlets, and (3) for an enhanced product mix - to make available to our field force on a company-sponsored basis certain products such as RLR, last-survivor, whole life and, most particularly, low cost term insurance.

At that time, over 90% of Covenant's new sales were YRT. Their pricing was extremely competitive - supported almost entirely by what seemed to me to be excessive coinsurance allowances provided by certain reinsurers seeking to expand their market shares. Most of Covenant's business stemmed from brokers - and featured a high age distribution (about age 45 on the average), and a relatively high average size (close to \$250,000) - a significant number of \$1,000,000 and over cases.

With respect to NEL's YRT, we were faced with an immediate dilemma. On the one hand, we had a relatively uncompetitive, essentially unreinsured, aggregate-priced product with a non-smoker/smoker price distinction, no re-entry feature, and no banding. On the other hand, Covenant had an extremely competitive, almost fully reinsured, select and ultimate priced product with no non-smoker/smoker price distinction, fully-commissionable re-entry after four years, and banding at \$250,000, \$500,000, and \$1,000,000.

One of our choices was to simply opt out of the term business and direct our agents to Covenant's product. We rejected that out of hand. Instead, our strategy emerged somewhat as follows:

We determined that NEL's proper term marketing niche was primarily in the "under \$250,000" size market - the less sophisticated, younger age, personal, and small business sale.

We decided not to band NEL YRT's at that time and encouraged our agents to sell larger amount cases for Covenant in situations where competitive rates were a must.

We reflected more of a non-smoker/smoker pricing differential than most other companies - to attract the highest possible proportion of non-smokers within our defined market niche. At the same time, we saw to it that Covenant repriced its YRT on a non-smoker/smoker basis - otherwise, our agents would have directed all of their smoking clients to Covenant, with a resulting serious impact on their sales mix and our joint profit expectations relative to their business.

We went to a five year select and ultimate pricing structure - obviously for competitive reasons and also for compatibility with Covenant's rates. This was not a decision easily arrived at, but we felt we had no choice if we were going to stay in the term market. Dividends started at the end of the fifth policy year.

Because of Section 213 problems in New York, we did not embed an explicit re-entry feature in the YRT contract. Apparently, the New York Insurance Department requires that re-entry commissions be included with other renewal commissions in testing renewal commission margins. Therefore, our approach was to contemplate allowing fully commissionable re-entry after four years (same as Covenant) subject to regular evidence of insurability - then issuing a new YRT with the suicide and incontestable clauses waived out.

We reinsured 100% of our non-smoker and standard smoker business and discovered (as have many other companies) that reinsurance has become one of the most, if not the most, important elements in pricing YRT. As our president said at the time, "these reinsurers must think they have discovered the secret of immortality."

We extended coverage to age 100 (the prior YRT expired at age 70), which meant that it was no longer necessary to assume any particular level of antiselection in the conversion cost pricing.

Establishing a satisfactory company policy for the inevitable internal replacements was a major challenge. Home office costs to preserve the business were not insignificant. On the other hand, lapses and external replacements result in unamortized first year expenses being absorbed at a loss.

We decided to allow replacements of non-substandard business within the first four policy years using short-form health statements with normal underwriting for older policies. We also allowed the simplified issue approach to be used on these replacements where there was an increase in face amount not exceeding the lesser of \$250,000 or the original face amount.

Our first year commissions on YRT's for the past several years have been 35% with an additional 20% paid if any part of the second year's premium is paid. For replacements within the first four years, no additional first year commission is paid. Full first commissions are paid on older policies and on any increase in face amount. We have stuck firmly to these rules, fully aware that some of our loyal agents switched their clients to one of our competitors for full first commissions. For policies replaced before the first anniversary, we rewrote them as if the new policy had been purchased on the new basis as of the original issue date.

Our new YRT product and Covenant's repriced YRT were both introduced in the Spring of 1982. During the past year, 89% of NEL's YRT sales have been for amounts less than \$250,000 with \$136,000 average size. 83% of our YRT's were issued to alleged non-smokers.

The ratio of NEL to Covenant YRT sales produced by NEL agents has steadily moved up during the past year from 2:1 last summer to about 4:1 in April 1983. This is interesting since we only competed well with Covenant during that period on non-smokers for amounts under \$250,000. Our agents that I have talked to about this say that they are uncomfortable placing term with a specialty low-cost term company if they feel there is any chance of converting the term. In view of the fact that our conversion rates have been averaging only about 4% of our inforce, I conclude that their problem is somewhat psychological in nature. Also, that they are not telling us about the term business that they are out placing with other companies where rates are low and commissions and expense allowances are high.

But our term pricing and product design saga does not end here. On May 1, 1983, we introduced a new term plan to replace the YRT-100 introduced in 1982.

The new plan is level term to age 75, or 20 years if longer, available at issue at ages up through 75, and convertible to age 70. The plan provides level coverage with increasing premiums rather than being a contractually renewable YRT plan. Banding has been introduced at \$250,000, \$500,000, and \$1,000,000. Re-entry, as I described it earlier, is again allowed through age 69.

Premiums are based on a 10 year select period with dividends beginning at the end of the fifth policy year. There are no cash values. The price level and profit tests reflect a \$5 per \$1,000 Section 818(c)(2) reserve revaluation adjustment. 90% of the non-smoker and standard smoker business will be reinsured, split 50-50 between two somewhat less enthusiastic reinsurers.

Although the TEFRA revaluation adjustment justified rate reductions at all size levels, we deliberately restricted such reductions to policies \$250,000 and over. Discussions with our field advisory committees revealed the agents strongly felt that we didn't need to be any more competitive in the size sector where 89% of our term sales have been coming from. Instead, they wanted us to compete more effectively for non-smoker business in the \$250,000 to \$1,000,000 size range - where a substantial amount of business insurance can be written. The more favorable rates in the \$1,000,000 plus band reflect a 5% reduction in first commissions.

From all of the foregoing, you might be starting to conclude that we have become raving disciples of ITT's Bruce McDonald and are trying to produce a product mix with NEL heavily tilted toward term. Nothing could be further from the truth.

Through April, our 1983 vs. 1982 non-pension permanent sales are up 122% by annualized premium and 182% by volume. Over the same period, our term sales are up 38% by annualized premium and 49% by volume. Our permanent

line was repriced a few months ago - featuring lower premiums, a variable policy loan rate option, and direct recognition of policy loans in the dividends. Incidentally, we also introduced a reasonably competitive universal life product last Thanksgiving (a symbolic date), and it has amounted so far in 1983 to just 3% of non-pension permanent sales by volume.

A few comments about YRT mortality and persistency experience. Previous Society Reports have shown that industry term mortality is comparable to or somewhat higher than permanent plan mortality. Since we are reinsuring virtually all of our term coverages now, the risk of antiselection on re-entry has been transferred to our reinsurers. Our costs of reinsurance, factored into our pricing, are based on 110% of NEL's current select and ultimate mortality assumptions for our non-smoker and smoker permanent business.

NEL's term lapse rates based on 1979-1981 experience, a reasonably stable period for us, indicate about a 20% first year lapse rate, with level 15% lapse rates in renewal years. However, with all of the internal and external replacement activity generated by these product and pricing changes in 1982 and 1983, it is impossible at the present time to know what our term persistency really will be in the next few years. Assuming that a new tax law emerges in 1984 without Section 818(c)(2), we will have to raise the price of our term products (permanent products also) - and I suspect the persistency of our 1983 term business might then significantly improve.

I don't have any solid data regarding Covenant's term lapse rates, but from discussions with the reinsurers, it's my impression that they fall in the 25%-30% range - for each policy year, first and renewal. This is not surprising considering that Covenant's term business has been mainly produced by brokers with transferable loyalties and was written on older lives for relatively large amounts in a fiercely competitive environment.

With respect to reserves, our new term product (as I mentioned earlier) is not a contractually renewable plan. Thus, reserves are held over the life of the policy rather than for one year. The reserves are still quite small, however. Since there is no renewal period, the deficiency reserve for renewal periods required in Texas does not apply. Also, based on 1958 CSO 4 1/2% reserves and minimum reserves on the 1980 CSO 6% table, our deficiency reserves will be minimal other than in New York. In New York, however, we will have to put up substantial deficiency reserves - on the order of \$5-10 million per billion of sales.

The original version of the program for this session included a question about the use of individual term policies to provide group term coverage. We have been asked to quote on a number of plans where it is perceived that individual term rates might be lower than Table I costs. The issue at hand is simplified underwriting, and the amounts of coverage requested can be quite large. Because of the fact that our current term products contain relatively thin profit margins and are almost totally reinsured, we are not willing to write any of this business if underwriting concessions have to be made. More important, our reinsurers would not be willing to reinsure this business without renegotiated rates.

One final comment. After a decade of convulsive changes in the term market, we think we have staked out our proper niche. We wish to be as competitive as possible, compatible with acceptable profit goals, for term cases for less than \$1,000,000 - focusing particularly on non-smokers. We are not after the large-case brokerage market. Our term business is being written by a reasonably controlled field force. We think our pricing structure is reasonably compatible with Covenant's. Covenant itself is much less a competitive force in the term marketplace than it used to be - and it is placing more emphasis on indeterminate premium non-par permanent products such as Irreplaceable Life-type products.

Our reinsurers have told me that they endorse our term pricing and marketing strategy. They feel that our reinsured YRT business should produce acceptable mortality and persistency experience and be an ultimate source of profit to them. However, they are considerably more queasy about Covenant's YRT business because of its different source and mix.

At NEL, for 1983 at least, we think we have achieved a proper balance between term and permanent. So far, term sales have amounted to 34% of total non-pension sales by volume - a ratio not much higher than what it was 10 years ago.

MR. BILL CHEN: I have a couple of comments of a more positive kind. Some companies are actively promoting term conversion programs which may have some impact on mortality. Second, I'm wondering if anybody has studied persistency for a general agency versus a brokerage agency. I talked to a PPGA company that has reasonable persistency, and our company is a PPGA company primarily. We don't know what our experience will be in the next few years, but I'm wondering whether a reinsurer might do that kind of study. Regarding level commissions, I recently changed some commission scales on large policies, but it hasn't slowed our growth of term sales. We still have tremendous growth, even though the first year commission has been reduced almost to a level commission level. Third, you mentioned the Beck-Rolland proposal, but it is my understanding that both mutual and stock companies are going to submit separate bills to Congress. In recent testimony, however, the Treasury Department indicated they are probably going to take away the 818(c) deduction on modified premium whole life. But the stock information groups still strongly endorse 818(c) so we really don't know what the outcome will be.

MR. BARTON: Several people were commenting on level commissions and attempts to move towards a level commission, and I know that for a number of companies, that has been a practical move and it has fit in, perhaps, with a property-casualty orientation, or a particular specialized marketing organization. But in general, most companies had a lot of difficulty in doing that and for the most part have been negative on that approach. Perhaps they have leveled commissions a little bit by shifting some from the first year, but a number of clients that we have been talking to have been doing something slightly different. Maybe Gary is aware of some client that he is dealing with that is keeping the commission structure similar to what it is now, but developing some type of a chargeback system to the agents on lapsed policies. In other words, they will support the agents who need to be supported with high first year commissions, particularly if they are developing their own field force. That is necessary and in a PPGA or brokerage market, it is probably imperative. Many companies and their field forces have been receptive to

some type of a chargeback system on lapses, and that may be a more realistic and a more accepted approach and still accomplish the same thing as levelized commissions.

MR. DAHLMAN: Some of the companies I have worked with have attempted that. Unfortunately, you need something to charge back against, and it hasn't always been there. The comments that have been made today demonstrate that it is very difficult to generalize in the area of competitive term insurance products. For example, on level commissions, there are isolated examples where level commissions are working for some companies. But level commissions are not for all companies, and they are certainly not a cure all. Level commissions won't overcome serious product design or underwriting deficiencies. We can not look to level commissions to solve all of our problems.

MR. MELVILLE YOUNG: Steve and I participated in a term conference in Chicago last month. It was co-sponsored by the Reinsurance Section of the Individual Product Section. It might be apropos to give a brief report as to what was discussed there. It ties in somewhat to the comment that Harold made earlier: Are company's, in effect, stepping up to level commissions? The major problem is the product and yes, to pay a high/low commission on a select term product is insane. We should be levelizing commissions, but the major problem is the product itself. Quite a number of companies that were at our term conference did, in fact, announce steps in that direction, and a number of the major term writers are announcing withdrawal or de-emphasis of their select term products. A number of them were talking about levelizing commissions. Many major term writers are doing those things. The keys though are product redesign and underwriting. That came out quite a bit during the conference.

Again, many major term writers are introducing persistency underwriting. It's a major step, and I would urge everybody here that is in the select term market to begin doing these things. We have all been afraid to take steps because we thought we would lose market share or whatever. Many of the major companies are doing it, and that opens the door for those of us that would like to do some of these things to now do it.

818(c) was mentioned a couple of times today, and that hits my hot button, Steve. The one thing you could have added to your comments about 818(c) was there is none on most select term. The reason most companies are not taking 818(c) is because, regardless of what you call your select term contract, if you've got negative terminals, you've got net level reserves. Most companies recognize that and are not taking any 818(c) on select term. Those companies that do are fooling themselves, and it has nothing to do with what Beck and Rolland do or Congress does or whatever. There is just no 818(c) on select term with negative terminals. It is net level.

MR. RICHARD RASIEJ: There is an additional mortality risk which arises when the number of large amount cases grows more rapidly than the number of small amount cases, a situation which is particularly prevalent in the term market. The source of this risk is the shift in the cumulative distribution function for aggregate claims, which results in an increased probability of adverse deviation in the amount of aggregate claims. To the extent that this risk is not taken into account in the pricing process, there is an additional impact on profitability.