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THE CONTINUING SAGA OF TERM INSURANCE

*Moderator: MARSHALL H. LYKINS. Panelists: BURNETT HALSTEAD,
SAMUEL B. SHLESINGER, RICHARD E. OSTUW*

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MR. MARSHALL H. LYKINS: Term insurance does not need much of an introduction. Anyone who has been close to the market over the last half dozen years knows that it has been a rapidly changing and exciting place to be. We have had controversies about deposit term. We have gone through reentry term, and now we are seeing graded premium whole life policies, and indeterminate premium policies. Premiums have come down to what would appear to be rock bottom levels; however, a few favorable tax interpretations from the I.R.S. could push premium levels still lower. Large eastern mutual companies which six or seven years ago had perhaps 15% of their total business in term now are selling over 50% term. It is a market that it is rapidly changing and should provide an interesting session.

Our three panelists are all involved in the term insurance area but come from diverse backgrounds. Burnett Halstead is the Chief Actuary for Federal Kemper, a subsidiary in the Kemper group on the cutting edge of the term business, with new products virtually every year for the last

half dozen years. Sam Shlesinger is the Product Development Actuary for the Equitable in New York, which has just gone through a complete revision of their term portfolio. He represents the large eastern mutual traditional conservative approach to term insurance. With a future viewpoint we have Richard Ostuw, who is a consultant with Milliman and Robertson in New York. He has a background in both a large mutual and stock company and is involved with the product design and pricing of term portfolios for both large and small companies.

MR. BURNETT HALSTEAD: At Kemper, we introduced the term oriented portfolio about seven years ago. Prior to that time, we were writing about 200 million of volume per year. In 1980, we wrote more than six billion of volume. Most of the growth has been in the term or related areas. To discuss the subject of term insurance, I have divided my comments between products, assumptions and markets.

Product

I have divided this subject into three product areas: (i) Annual Renewable Term, (ii) Deposit Term, and (iii) Decreasing Term. Most term insurance sold today seems to be in one of these three categories.

(i) Annual Renewable Term

Our term involvement has been primarily in Annual Renewable Term (ART) and related areas. We also write deposit term and decreasing term but have not so far emphasized these lines and have not had the same dramatic sales results we have had with ART-type policies.

The major characteristic in the ART area has to be rapid change. In the seven years we have been in this business, we have averaged a new ART-type product every year. Our original products have long been obsolete, and our newest products are under competitive fire almost before we introduce them.

Our original product involved minimal banding, rudimentary recognition of select and ultimate mortality and no recognition of preferred risks at all. They were all guaranteed rate policies, and the biggest sellers used aggregate-type gross rates. Whole life forms and reentry were unheard of approaches.

The movement since then has been to select and ultimate rate structures with (i) reentry provisions that allow first year rates as frequently as every year, (ii) preferred rate discounts for nonsmokers and other favorable risks, (iii) indeterminate premium rates that can be changed to accommodate unanticipated experience, (iv) whole life frames, and (v) a multiplicity of banding techniques.

(ii) Deposit Term

While most of our sales and interest have been in the ART area, we have continued to maintain an interest in deposit term for a number of reasons which I will discuss later. Our sales in this area amount to about 300 million per year, which is roughly 5% of our total individual life sales.

Change has been much slower in Deposit Term. For example, our best selling product is the same product we introduced seven years ago. Sales have increased steadily every year since then, and the salesmen selling the product have expressed no interest in a cheaper updated model.

Our product line has been built around a whole life form. We have not banded the product. We have not offered preferred rate risk discounts. We have not offered select and ultimate rates. Reentry, however, has always been a part of the deposit term product, and its popularity there is part of the reason it was introduced into ART-type products.

All of our deposit term products require a high premium in the first year compared to renewal years. All provide for pegged cash values which return the excess first year premium before the 10th policy year and double the excess premium on the 10th anniversary. We are aware of at least one company, though, that successfully sells a product that does not return the excess first year premium. There has also been a considerable movement toward combination sales involving deposit term and a side fund or annuity contract.

(iii) Decreasing Term

Our original term portfolio seven years ago included both straightline and mortgage-type decreasing term policies. We continue to offer the original products in improved versions but they become relatively less popular.

In our opinion, there has been less of an effort to adapt these products to the competitive marketplace. We believe the opportunity is there to make many of the enhancements associated with ART in order to restore the popularity of straightline decreasing term. Mortgage policies basically require more flexibility to adapt to changing interest rates than they commonly have. Some companies seem to be successfully doing this.

Looking to the Future in the Product Area

While term development has been rapid in the last several years, there is some question in our minds whether rates will progress much lower. We have noticed substantial reductions in profit margin and would presume other companies are feeling the same pressures. It does not seem reasonable that very many companies will write large volumes at a loss. There may be some speculative pricing, especially on an indeterminate premium basis; although companies concerned about credibility may have difficulty doing this. There may also be some speculative pricing because of re-insurance or tax considerations. Both seem to us to have special risks.

Achieving better than average mortality is a must for companies attempting to be competitive. For this reason nonsmokers and other preferred risk classes are being emphasized by many. Good persistency is also a must in order to amortize high commission and underwriting costs. This is getting more difficult with select and ultimate rates and no withdrawal penalties. We and perhaps others are considering a major push in withdrawal penalty products to overcome this problem. Low term premiums are becoming self-defeating for an agent. Even with high average size policies, we contin-

ually have complaints about inadequate sales compensation. Deposit term or other approaches may eventually become more popular to solve this problem. One of these other approaches might be to eliminate built-in commissions altogether and let the agent charge a fee for his services.

It is probable that term will continue to become popular, especially if inflation continues at recent levels. However, it may become relatively less popular than Ordinary Life (O.L.) if some of the techniques recently discovered for unbundling O.L. into its mortality and investment components are implemented and a competitive rate of interest can be brought to the consumer on the investment side. If this is true, there is reason to believe that the steady drift away from O.L. to term could be reversed and have a significant affect on the term market.

Assumptions

Developing assumptions that will reflect experience and generate anticipated profits on ART and other term products has become a tricky business. My remarks in this area generally follow the program outline.

(a) Persistency

For want of anything better we originally assumed persistency on ART products would follow something on the order of Linton B. We quickly found out that this was not true, that our lapse rates in fact were about a level 15% per year. On deposit term we anticipated low lapse rates and in fact have experienced even lower rates. First year lapses have been about 6% or 7% on this business.

ART lapse rates are subject to some conjecture under reentry select and ultimate term-type products. We have assumed the same 15% annual lapse rate with essentially full lapse at the time of reentry. Indications are that this may be valid for small size policies but may be understating lapses for larger policies.

We have also noticed a fairly significant volume of internal replacement of old ART-type policies for newer models as products improve. Perhaps as much as 5% of older policies in force are changing each year. Handling large volumes of internal replacements is a matter of significance and concern in this business.

Establishing a satisfactory company policy for internal replacement is a particularly vexing problem. Home Office costs to preserve the business are expensive on the one hand. The lapse is expensive on the other hand. Agents want first year commission rates, and they can get them from a competitor. If the replacement is point in scale on a select and ultimate product, no evidence is typically needed. But additional coverage is often wanted, evidence is obtained, and first year rates are requested. Our position in general has been liberal as far as replacement is concerned. We do not pay new first year commissions though and do not obtain new evidence unless additional coverage is requested. In these cases we pay first year commissions on increases.

(b) Mortality

Current industry mortality was used seven years ago as a pricing basis.

This turned out to be conservative for us, and our actual results turned out to be about 60% of expected. These differences accounted for and continue to account for much of our profit on this business. The movement to select and ultimate rates has narrowed the earlier margins considerably and could have a long range impact if persistency is not maintained.

Reentry has provided a mortality problem for policies maintained after the reentry date; we assume extra mortality at that time. Whether we assume more or less than we should is debatable until experience begins to emerge.

Nonsmoker or preferred rates have raised a significant mortality question. Is it possible to maintain standard mortality in the standard class and at the same time siphon off the best risks to a preferred class? This whole area is somewhat speculative in spite of recent nonsmoker studies. It seems to me the effect will be lower mortality margins in general and lower profits.

We have not yet introduced nonsmoker rates. We feel we will probably have to, though, in order to remain competitive in the term product, at least at larger amount sizes. Our approach has been to split 1965-1970 intercompany tables into smoker and nonsmoker rates based on the State Mutual Study. These tables have then been adjusted modestly to reflect some peculiarities of our experience.

(c) Expenses

Our original expense assumptions were derived from operating results before we developed a term portfolio. They turned out to be conservatively high for two primary reasons. First, the volume of business increased enormously without any corresponding increase in Home Office personnel. This reduced our unit costs. In addition, our average size policy increased from 25,000 to well over 100,000, introducing additional economies.

Inflation, however, has eroded much of this original conservatism. We have never anticipated lower unit costs, based on larger volume, in pricing our policies and do not view it as a reasonable possibility for us at this point. The larger and larger volume of internal replacement referred to in discussing persistency is also an expense problem. The additional underwriting cost associated with reentry plans is also an expense problem on these plans.

(d) Sales Compensation

Sales compensation on ART and decreasing term-type policies used to be ten points or more lower than compensation on whole life policies. The gap has narrowed in recent years and present compensation is about the same. With reduced premium rates, though, dollar compensation has crept lower and lower in spite of this and has become a problem.

Deposit term pays considerably more dollar commission, and it is one answer to the sales compensation problem. A fee for service arrangement may be another way agents can be adequately compensated. It does not appear to us to be popular at this time. We find, because of the problem of dollar compensation, that few agents other than deposit term specialists specialize

in term sales. Most sell other things from stocks and bonds, to tax shelters, to diamonds in order to make a living.

There has been some feeling that level commissions are needed to solve the persistency problem associated with ART. This may or may not be true. I believe as long as reinsurers continue to back fronted commission scales, we will not find out. Several years ago, we were moving toward level commissions on larger policies; we had to reverse ourselves, though, because nonlevel scales of our competitors were being backed by reinsurance allowances.

(e) Premium Bands

ART products are characterized by many size bands. We currently use as many as seven different bands. The average size is well over \$100,000 and there are many million dollar and over sales.

We have just begun to band deposit term products. Up to now, there has been little impetus to do this. The average size has been about \$50,000. To an extent, it represents an answer for an agent in the small term case area. In an attempt to broaden its use for larger size policies, we have begun banding one of our products here also.

Decreasing term has been complex to band, although in recent years we have done so to a modest extent. Complexity arises because of the many variables inherent in decreasing term; for example, number of term periods, amortization rates, etc.

(f) Reserve Considerations

Deficiency reserve considerations have been a primary factor in policy design. Improperly designed policies use too much surplus and could readily result in a statutory insolvency. Various interpretations have been made of deficiency reserve laws as they relate to ART. The policy can be considered a one year policy or a term policy to the end of the renewal period. The resulting deficiency varies from almost nothing to 30 or more dollars per thousand. A solution of sorts was arrived at a few years ago in the form of an NAIC actuarial guideline. This guideline, however, has not been uniformly used.

To avoid the problem altogether, it has been popular to use a whole life frame with ART rates for some periods of years. This technique essentially allows sufficiencies in later years to offset deficiencies in early years. This allows the design of competitive products without impossible surplus allocations.

Deposit term deficiency problems have been resolved in much the same way, although the problem has never been as critical in this area because rates have never dropped as low as they have on ART. Decreasing term to some extent is a victim of deficiency reserve laws. It is not as easy to get around the laws in this area, and the companies have been unwilling to set up the deficiencies required on competitive products.

(g) Federal Income Tax Consideration

Writing policies on whole life forms may have some tax advantages for

companies. This relates to the section 818(c) adjustments where business is reserved on a preliminary term basis. Under the terms of the law, a \$21 per thousand adjustment is permitted policies "other than term insurance".

The law seems clear that a \$21 adjustment is permitted. There has been doubt raised, though, whether the I.R.S. will in fact allow the adjustment without challenge. Any challenge would probably have to concern itself with the definition of the term "other than term insurance" or perhaps whether an adjustment is proper in situations where net level reserves are lower than preliminary term reserves. This phenomenon occurs in select and ultimate graded whole life contracts where a first year net premium is lower than c_x . It should be noted that this is not the case with deposit term and is another reason why deposit term may be a preferable product.

We believe 818(c) is permitted, and we have taken advantage of it. Its availability, though, has not influenced our product pricing. Some companies may be taking a more aggressive posture.

(h) Reinsurance

The reinsurers have been attracted to the term business probably because of the volume of business generated. We currently cede well over one billion per year. Presumably other term companies cede similar volumes of business. In any event, the terms and allowances offered have become very attractive. The back-up provided by some of the larger reinsurers has become essential to the continued success of companies in the term business. No doubt some of the low rates today are a direct result of reinsurance allowances available. In our case, we have been ignoring favorable allowances in pricing, as a conservative practice.

(i) Conversion Rates

We have not actively pushed conversion, although we offer a substantial conversion allowance to the policyholder if he converts to level premium whole life. Conversions have not been a significant factor for us. Many agents, though, believe it is very important for us to have a competitive whole life product for them to convert to, even though they rarely use it.

(j) Profitability

In absolute dollar terms, the term business has been a profitable venture for our company. Seven years ago when we started a term program, our company was earning over a million dollars per year on a GAAP basis. Our GAAP earnings have steadily increased to over \$13 million for 1980. I alluded to the fact that profit margins have come down on term insurance about as fast as the rates. A crude measure of this is the ordinary GAAP profit related to the volume in force. Seven years ago, we were able to take over \$2.00 per thousand of in force to the bottom line. In 1980, this figure had reduced to less than \$.90, and indications are that it is headed lower still.

(k) Term Insurance Sales and Markets

Term insurance has no doubt become far more significant because of the

"great inflation" than it was before. People are perceiving in greater and greater numbers that it does not make any sense to pay for tomorrow's benefits with today's dollars. If people do not perceive this themselves, consumerists and the government are there to help them.

Traditional level premium products will make less and less sense to consumers unless somehow companies can bring investment return back to them that beats the rate of inflation on an after-tax basis. Fortunately, such products are beginning to appear. I predict pure term insurance will become less and less saleable as these products become more and more available.

Unbundled level premium products will, in my opinion, include mortality costs much like those in the better term products. If they at the same time, provide an inside tax-free buildup that beats the rate of inflation, they effectively provide a viable rate of return and enable the customer to purchase term insurance on a pre-tax instead of an after-tax basis. If presented properly, this has to be a powerful sales tool for selling whole life instead of term.

I do not believe distribution methods will change significantly in the 1980's from where they are right now. It follows that, if satisfactory methods can be found to preserve the whole life-type contract, agents will continue to be able to earn a living selling life insurance. If, on the other hand, term continues to dominate more and more of the market place, life insurance sales will no longer be made by life insurance sales specialists. Stock brokers, casualty agencies, financial planners, etc., have all made significant in-roads into life insurance sales and may continue to anyway. I believe, though, that lack of a viable whole life policy accelerates this.

Summary

I prepared the comments for this session about two months ago, and re-read them a few weeks ago. It seems to me they painted a more pessimistic picture than I intended. While there is undoubtedly cause for concern, there is still, in my opinion, opportunity for considerable innovation in the term market. We have a number of far-out ideas by today's standards, and I am sure others do too. I think the saga of term insurance will be with us for a while longer.

MR. SAMUEL B. SHLESINGER: Equitable offers, in addition to two Yearly Renewable Term (YRT) policies, several decreasing term policies and a large assortment of term riders. Most of our term sales come from our YRT policies, however, and I will confine my remarks to those policies.

We first introduced our YRT policy in 1970. 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 nonsmoker classes, dividends were payable beginning at the end of the second year, and in general, the policy was characterized by high premiums and high dividends.

During the 1970's, our YRT policy was changed in several respects. The first dividend was deferred until the end of the fifth year, enabling premiums to be reduced somewhat. A preferred class was introduced in

1975, and a nonsmoker class followed in 1979. Also in 1979 we increased the renewal period to age 100 and conversion to age 75. Premiums were reduced in 1973, 1979, 1980, and 1981. Dividends were increased in 1974, 1975, and 1976. Each reduction was in response to competitive pressure, and the frequent price changes we made during the 1970's were common in the industry.

In April of this year we replaced our YRT policy with a new design. The new policy has select and ultimate rates, the select rates applicable during the first four policy years and the ultimate rates in years five and later. There is no provision for reentry, but dividends which are now payable at the end of the fourth policy year are slightly higher than the excess of the select rate over the ultimate rate for the next year. Dividends were set that way in order to prevent agents from replacing coverages in the fifth policy year.

Premium Bands

We also introduced two new premium bands in 1981; one for amounts of at least \$500,000 in an attempt to become more competitive in the high amount market, and a second band from \$25,000 to \$100,000. With the introduction of the lower band, we discontinued our Five Year Renewable term policy. That policy was proving increasingly unattractive in competition with the YRT policies other companies were offering in the under \$100,000 size band, mainly because of higher initial premiums under Five Year Renewable term policies compared to those under a YRT policy.

Sales Compensation

Importantly, we also increased our first year commission rate for term policies from 35% to 55%. We had suspected that we were losing term sales of our own agents to companies operating outside of New York who were offering, we believe, first year commissions of at least double our 35% rate.

Fifty-five percent, as you all know, is the maximum commission rate permitted under Section 213 of the New York Insurance Law. In addition, Section 213 poses a limit on first year field expenses. First year commissions are charged against that limit, and the limit is credited with 37 1/2% of first year term premiums plus \$1 per thousand face amount. Based on our distribution of business by age, size, sex, and plan, we found that the 55% commission rate did not endanger our compliance with the first year expense limit. That result might not hold true, however, for companies with a different mix of business.

The higher first year commission rate did cause a deferral in profitability. To counteract this, we introduced along with the commission increase a commission recovery program for YRT policies only. We now recover one-half of earned commissions for policies lapsing in the first six policy months and one-third of commissions for policies lapsing in the second six policy months. The recovery plan enabled us to support the commission increase while at the same time maintaining profitability.

Existing Policyholders

The new product was enthusiastically received by our field force. Term sales for the month of April were over 600 million dollars, nearly triple sales from April of a year ago. The many changes to our term portfolio over the 70's have presented us with some problems concerning the treatment of existing policyholders. When we have a product change in our permanent portfolio, we generally have a short transition period, say six months or so, in which we permit policyholders who purchased policies during that time period to exchange their policies for the new product.

For improvements in our term portfolio, however, we try to offer the improvement to all existing term policyholders. We do so primarily because of the relative ease with which term policies can be replaced. The point is that in developing a new term product or product improvement, its affect on existing policyholders must be taken into consideration.

Assumptions

Concerning mortality, we use the same table to price both term and permanent policies. The table is select and ultimate based on our own experience and is updated every five years. We do make one adjustment, however, when pricing YRT products. We increase the mortality rates at the older ages to 110% of permanent mortality beginning at age 70, grading to 130% for ages 80 and over. Since we have no term mortality experience at those ages, and because sharply increasing premiums are expected to produce some antiselection, we felt it prudent to build some margins into those rates.

We did introduce a nonsmoker class in 1979. We used the Surgeon General's Report and other studies available at that time as a starting point in developing separate mortality tables for smokers and nonsmokers. The smoker to nonsmoker mortality ratios we developed varied by age and sex. In total, the weighted ratio of smoker to nonsmoker mortality we selected was 150%.

As to persistency, our term lapse rates for policies of at least \$100,000 have been averaging about 15% in each of the first two policy years with a fairly level lapse rate of about 6% to 7% in renewal years. Our last lapse study is based on experience in 1978, however, and with today's fiercely competitive term market our lapse rates, particularly at the early renewal years, may be deteriorating.

Concerning expense allocation, we develop expense rates each year based on projected sales and projected expenses for the next calendar year for both permanent and term policies. Each product line is charged with all of its direct expenses (commissions, managerial overrides, etc.) and a portion of overhead expense allocated by several different parameters.

Deficiency Reserves

Deficiency reserve considerations are important to us in our term pricing. We now test for deficiency reserves using the procedures adopted by the New York Insurance Department in 1979. Those procedures require testing to the final term expiry dates but provide for the use of the Modern CSO Mortal-

ity Table. This table has helped in reducing the level of deficiency reserves, although the problem is far from eliminated, and deficiency reserves still play a significant role in product design. For example, deficiency reserves were certainly one of the considerations in limiting the select period under our new term product to only four years and in setting the ultimate premium scale for that product at a level above the rates in the Modern CSO table.

Conversion

Concerning conversion costs, prior to 1979 we had a final renewal age of 70 and a final conversion age of 65. At that time, we assumed a fair amount of anti-selection at the final conversion date and lesser, although still significant, anti-selection before that date. This anti-selection had a measureable affect on premium rates.

With the extension of coverage to age 100 and the extension of the conversion period to age 75, we no longer found it necessary to assume any anti-selection in our conversion cost pricing. We now assume that the mortality under the converted policy will be the same as for continuing term policyholders at the same issue age and duration. Of course, there is still a mortality cost associated with conversions because the premium basis of the permanent policy assumes virtually select mortality. Persistency of converted policies has generally been better than average, and that produces a cost savings. The excess of the present value of the mortality costs over the persistency savings and underwriting savings is reflected in our term pricing. We found that this excess in itself was not too significant. Of greater significance is the level of conversions. It is conversions occurring before the initial expenses are amortized that produce losses. Our conversion rates have always been low, however, averaging about 3% to 4% of our inforce. Our permanent policy is now quite competitive, however, and with the addition of our new YRT policy we introduced a conversion allowance equal to the premiums paid for the term policy for the first policy year. This may produce an increase in our conversion rates. We will be monitoring our conversion experience closely to determine if our pricing is adequate and whether or not the conversion allowance should be continued.

We also offer a non-convertible YRT policy with premiums about 10% lower than the convertible policy. The non-convertible policy is mostly used in specialized business situations where convertibility is not required. We pay reduced commissions on the non-convertible policy of 40% as opposed to 55%. For the two years we have been offering the non-convertible policy, it has been averaging about 10% of our total term business.

Profitability

Concerning profit levels, we examine profits both on a fully allocated expense basis and on a marginal expense basis. We set our premiums and dividend scales so that the present value of future profits is a target percentage of future premiums. The target percentages are fairly close for both permanent and term pricing. For term, however, we require a much earlier break-even year than for permanent.

We have several reasons for aiming at being in a gain position earlier on term policies. First, term policies are much more vulnerable to

replacement since the term market is more competitive than the permanent market and since there is no real surrender charge on termination of a term policy. Second, the possibility of higher than expected conversion rates is a threat to profitability not found in permanent policies. Finally, the impact of inflation on renewal expenses is of more significance for term than permanent policies because the investment hedge available with permanent insurance does not exist for term.

Sales and Markets

Our term sales have increased sharply over the last 10 years from \$.5 billion dollars in volume in 1970 to over \$3 billion in 1980. Importantly, the percentage of sales volume attributable to term increased from 17% to 30% over that same time period.

We believe the immediate outlook for the term market will continue to be strong. Inflation will cause many applicants to spend their insurance dollars on products with the cheapest costs while they allocate their investment dollars to instruments with high rates of return. The insurance industry is in the process of developing insurance products to permit policyholders to receive higher rates of return. In our own company, Variable Life Insurance (VLI) is now one of our best selling permanent products. Many sales interviews start out with the consumer telling an agent that he is interested in only term insurance because of the low investment return on permanent, and end up with a VLI sale.

Universal Life policies are still in their infancy, but the combination of higher visible rates of return together with fairly low term costs should cut significantly into the term market place. I think in the near future, say three to five years from now, the shift towards term will reverse itself, and the insurance industry will start attracting a higher percentage of the savings dollar. Also, if inflation does decrease to more reasonable levels, the enforced savings attraction of permanent insurance may also be a factor in the shift away from term.

MR. RICHARD E. OSTUW: I gave this presentation a working title during its early stages, so as to keep myself focussed on the major issues. The title is "Term Insurance Today and Tomorrow". In part, it reflects my fear of trying to predict changes in the term insurance market more than two days into the future, because the rates of change in both prices and product design over the last several years have been very rapid.

I believe this trend of rapid change will continue. Therefore, the decisions you make now about your company's future term portfolio must be made carefully because the risks are great—term insurance could conceivably represent up to 75% of your company sales volume over the next several years. On the other hand, these decisions will require a certain boldness because your company's past experience may not be a reliable guide to the future experience on a repriced term product. In addition, you may be forced to make major decisions about a completely new term product not currently represented in your company's portfolio and of which you are familiar only from observation of your competitors.

What follows, therefore, is an informal and partial checklist of the

major factors that I think should be kept in mind by the actuary about to reprice or redesign his company's term portfolio. Of course, the hard part for the actuary is not stating the questions but estimating and living with the answers.

A frequent starting point these days is a review of the company's actual and potential surplus position. This has special bearing on the decisions concerning deficiency reserves and profit standards.

Deficiency Reserves

Deficiency reserves, in particular, can be the tail that wags the dog. Traditional, or aggregate, non-par guaranteed cost renewable term priced on a competitive basis can be painful in this respect if a company offers a preferred risk or nonsmoker class of premium rates, otherwise reasonable trial premium rates at the higher issue ages can lead to initial deficiency reserves on the order of \$50 per thousand. Obviously, such trial rates will never leave the actuary's desk.

Problems such as this have spurred the growth of revertible or reentry term. The guaranteed rates for those who fail to qualify for reentry are almost universally high enough to end the potentially long string of deficient future premiums on traditional YRT at an early duration. Likewise, the graded premium whole life plans which have rates comparable with yearly renewable term for the first 10 or more years, rely on later high premiums (again for those insureds who do not reenter) to force the ratio of net valuation to gross premiums down below unity.

A growing number of companies are pursuing indeterminate premium non-par permanent insurance plans, in part, as a cure to the deficiency reserve problem. For them and others a companion, non-guaranteed premium, term portfolio is an option that should be considered. Here, of course, the risk exists that the difference between the maximum and the billed premium will be treated by the I.R.S. as a dividend deduction subject to limitation. Hopefully, that issue will be decided in the next two or three years. One can partially protect against this risk by offering a low corridor between the two sets of rates, the maximum and the billed, for the first two or three policy years (years in which the risks of adverse deviations are somewhat smaller). And one can cease to issue this type of plan if the tax treatment of the corridor is as a dividend. The lapse rates on the then closed block will take care of much of the dividend problem quite naturally.

Mortgage and other decreasing term products have suffered greatly in the current economic environment and from competition by credit life. However, deficiency reserves based on the 1958 CSO rather than on the Modern CSO (as for renewable term) and incidental cash values are both purely regulatory problems. I have a totally untested hypothesis that both the deficiency and cash value problems could be mitigated by restructuring decreasing term as annual renewable term with a schedule of death benefits decreasing by duration. This may provide a way to deal with changes in flexible rate mortgages. Total policy premiums under most benefit and premium rate per thousand designs would increase moderately by duration for a number of years from issue. However, these increases could be partially or wholly offset by dividends on the par side or by an indeterminate, non-guaranteed premium contract on the non-par side. However, I would not be at all surprised to find that the

cure is worse than the disease for initial amounts below \$100,000, a large portion of the market for decreasing term products.

Profitability

Many companies seem to be a bit less certain about their profit standards for term as opposed to permanent insurance. I am sure that Mr. Leckie's paper on the internal funding of growth has engendered much thinking in this area. Many stock companies use return on statutory invested surplus (ROI) as their profit methodology. Recently, however, I have used a re-interpretation of this methodology for mutual companies as well. Here, the ROI, or discount rate applied to the existing profits, can be interpreted not as a rate of return on invested surplus but as a self-funding growth rate for the plan using static actuarial assumptions.

Take a typical plan, for example, that shows a yield of 15% over the first twenty policy years and a higher yield thereafter, and assume that the sales grow at exactly 15% per year. The block of all calendar years issues from plan inception will reach its low surplus point in the 20th year since inception of that block and then start to make up ground. Please note, we have hypothesized that secular trends are non-existent in order to draw that conclusion. A full scale projection for the entire term portfolio including secular trends is probably a worthwhile trial exercise if limited capital and surplus are a major concern.

One can include allocated non-free surplus in addition to mandated statutory reserves in these exercises if desired. This reflects the fact that the tying down of such surplus for valid business reasons may be as restrictive on the company's actions as statutory reserves. We have found that those companies that use net investment return in their pricing as an accumulation or discount rate, for asset shares or GAAP premium determinations, may sometimes find that the level of profitability per unit after co or mod-co reinsurance is actually higher than without it.

Persistency

Here I am somewhat pessimistic. As a part of the 1980 NAIC proposals, one of the technical committees is now considering the applicability of the optional mortality scaling factors to reserves for traditional and reentry renewable term plans. It is possible that basic reserves and deficiency reserves for term plans under the final proposal and actual state laws will be significantly lower than under current law. If so, we can expect heavy replacement of the inforce under current plans. Companies may be forced to undertake some sort of term-to-term conversion program resembling, perhaps, a trimmed down version of the Northwestern Mutual Project Update without the cash value and loan considerations.

Coming back to the current legal environment, we have seen a disjointed phenomenon in lapse rates to which an actuary should be alert. The first company to introduce a significantly different and highly competitive term plan in a geographic area may experience extremely low first year lapse rates until other companies follow the trend. After that, all companies including the first show the typical first year lapse rates, say

of 15% to 30%. Obviously, that transient initial experience of the first company is not a reliable guide to future pricing decisions even for that company. The typical four or five year revertible YRT with a high premium slope between the first year and the initial reversion year seems particularly prone to this phenomenon. Similar plans with flatter slopes or even one year reentry provisions may become more common.

The purpose of the flat slope is to give the policy owner an approximation of a new first year rate on reversion, thus decreasing the replacement problem to some extent. The annual revertible YRT plan takes this idea to the logical limit, giving the insured the actual first year rate in every year that he remains in good health.

Mortality

We are reflecting the ample opportunities for anti-selection already discussed by applying fairly steep scaling factors to underlying experience tables. Just as an example, if we start at 80% of the 1965-70 table, we might grade up by 1.5% per year through year 15, and 1/2% per year thereafter. Lacking a great deal of later duration experience for revertible term plans, we have found it convenient to make that kind of assumption for the entire block of business, including both reverters and non-reverters. Some actuaries then split that total into pieces by reversion status at various durations from initial issue and deal with each separately such that the sum of the number of deaths for all groups equals the preconceived total. Much of this is necessarily based on judgment because of the lack of past experience. Therefore, we have found it generally reasonable and much quicker to treat the total pool of lives as one group. We must still make reversion assumptions to get, for example, weighted average premiums and commissions, but the profit studies and projections are mechanically much simpler. The cost of the rigorous approach will be more justifiable once extensive data are available. We have also used essentially the same technique for GAAP reserve adequacy tests on revertible term plans.

I find that some companies are reluctant to establish nonsmoker or preferred risk discounts. However, these companies are constrained to review that policy even more frequently. I believe increased anti-selection by smokers against such aggregate basis companies, and outright loss of nonsmokers from their market, will eventually force a change in policy if only to retain market share. Implementation of the 1980 NAIC proposals will only serve to accelerate that trend by relieving some of the deficiency reserve pressure currently associated with the nonsmoker discounts.

There seems to be a greater divergence in the level of nonsmoker discounts at the higher issue ages, say 55 and above. Companies have typically not given full credibility to the difference in smoker and nonsmoker mortality at those ages, and the term and permanent markets have not been extremely sensitive to these differences in pricing practices.

Sales Compensation

Consider the subject of equalizing commissions for permanent and term insurance. Several years ago this frequently was assumed to mean bringing term commission rates up to meet the permanent rates. But we have seen

indirect stimulus from annuity compensation practices, as annuities have become more popular, and we are likely to see more direct competition from universal-life-type products with relatively low first year commissions. If anything, the trend may be the opposite, for commission rates on traditional permanent plans to creep down toward the term levels. This trend is reinforced by the entry of non-traditional sales personnel into the life and annuity arena.

Expenses

One obvious question that must be answered for all revertible term is how thorough a job of underwriting should be done on the reversion application. For example, high re-underwriting expenses obviously cut into profit margins, especially for one year reversion plan. This is obviously offset by decreases in mortality experience among the successful reverters. On the other hand, the reversion pool of lives will be smaller, and lapse rates among the healthier lives in the expanded non-reversion pool will be greater. Many choices and many offsets have to be considered, and most companies have not fully addressed this issue, partly because replacement by more competitive new products has taken the place of the desired reversion process. Functional expense allocation is a subject that deserves more attention than it usually gets. Once every few years a company should re-examine its allocation of corporate overhead and certain direct acquisition expenses by line of business and within line by plan and functional unit (that is, per policy, per unit, and percentage of premium). The focus should be on whether the allocations bear a reasonable relationship to the actual incurral of expenses (although this may be difficult to demonstrate for overhead) and whether they relate well to the company's goals and opportunities.

To give a specific example, a useful exercise might be for the actuary in charge of the project to discuss expense patterns with a senior underwriter. Here the goal is for the actuary to get as detailed a picture as possible of how much time is spent by various levels of underwriters and what outside expenses are incurred to underwrite a cross section of typical cases. The selection of cases could include variations by plan, issue age, amount, special markets such as individual pension trust, special risks both good and bad, and reinsurance considerations. A similar interview technique may be tried with the Marketing Department, although the results may not be as clear cut. Such a review of expenses, even if it does nothing more than confirm current allocation patterns, is useful because it forces management to examine its goals and strengthens everyone's confidence in the conclusions reached in the pricing studies. If, however, the re-examination yields unexpected results, it could lead to painful but desirable changes either of product and market goals or of means used to pursue the current goals.

Finally, let me note that, at least in the short run, some expenses are relatively fixed. Therefore, dramatic increases in sales and inforce tend to be accompanied by decreases in allocated functional unit costs.

I believe this presentation has done little more than put labels on some important questions, but I hope that these labels will be helpful to those of you with the responsibility of creating new insurance portfolios.

MR. LYKINS: I have one comment before we open the floor to questions. We have ignored, or at least somewhat diminished our attention to, the third topic on the program, dealing with markets and sales. That topic was covered extensively at the Anaheim meeting and so has received less emphasis here. We are certainly open to questions on that topic as well.

MR. RICHARD KLING: Mr. Shlesinger, you stated that you try to offer improvements in your term portfolio to all existing term policyholders. How did that apply when you introduced your nonsmoker rates? Did you canvass the nonsmokers and require evidence or did you handle the problem through the agent?

MR. SHLESINGER: We supplied each of our agents with a list of eligible policyholders. These are people who had yearly renewable term policies of at least \$100,000 and were issued standard policies. We permitted any existing policyholder to sign an application amendment stating that he had not smoked within the last year, and we gave him the premium discount prospectively only.

MS. REGINA MCDERMOTT: Bernie, you mentioned that the use of a whole life frame for the ART policies helped to reduce deficiency reserves because future sufficiencies can offset current deficiencies. Could you explain how that is possible?

MR. HALSTEAD: Essentially, the net premium on a whole life policy is a percentage of the gross premium, and it is the uniform percentage of the gross premium that is important. The uniform percentage of the gross premium is less than c_x in the first year and perhaps the first few renewal years but becomes greater than the 58 CSO c_x 's in later years. The whole gross premium scale is above the 58 CSO even though it is below the 58 CSO in the early years. The law does not require deficiency reserves on that sort of product.

MR. CARY LAKENBACH: I have a question, Bernie, concerning your comments about expense allocation. You said that the increased amount of business that resulted from your pricing resulted in a significant reduction in expenses. Did you at all anticipate these reductions in expenses in your pricing?

MR. HALSTEAD: We did not anticipate them originally. We look at our expenses every year as we go along. The expenses in the last year, for example, are lower than the expenses were five years ago, and as a result, we are able to reduce our rates for the next year. We always look at them retrospectively. We do not attempt to prospectively determine what our expense rates are going to be. That can be a dangerous game, especially if production falls off significantly.

MR. GERALD RANKIN: Bernie, you noted that there were situations where net level reserves are lower than preliminary term reserves. In that situation there is a question whether there is any business reason for holding CRWM reserves. Have you had any feedback from the IRS on taking the 818(c) \$5 or \$21 adjustment when CRWM reserves are higher than net level?

MR. HALSTEAD: I have no feedback on what the IRS is going to do. So far, they have made no determination, as far as I know, that they would challenge anything like that.

MR. THOMAS EASON: There are two areas of interest to me. One has been touched on, but I would like to go into it a bit more broadly. The first is the matter of existing policyholders; I am aware of at least two, perhaps three companies that have systematically reduced premiums on existing contracts at the time the new term series came out. They are heavily brokerage-oriented companies and felt that this might be helpful to them in retaining some of their business without having to re-incur commission cost. I wonder if all of the panelists would address the kind of practices that they may have seen, or expect to see, as we continue to have series after series of lower-priced contracts.

The second question is a bit more provocative and deals with another aspect of the saga that we are involved with. There have been a couple of cases, which I gather are gaining some notoriety, dealing with the shopping of jumbo-sized cases, that are moving every year, and in some cases even less than every year, from one company to another with the additional first year commissions being paid to the writing agent. I am curious to know if you are aware of practices developing either in direct writing companies or reinsurers, to prevent that kind of shifting of business, or what practical steps there may be to prevent it.

MR. SHLESINGER: Concerning your first question on giving premium reductions to existing policyholders, in 1980 we changed our premium scale and reduced the premium rates for the first ten years by 10%. Since this was better for every existing policyholder, we were able to offer the new rates unilaterally. We sent each existing policyholder a letter along with his next premium billed, explaining that the premium for the year was lower than that in his policy and that we expected, although we could not guarantee, to continue to offer lower premium rates for the remainder of the ten year period. We did it that way rather than with a guarantee in order to avoid deficiency reserves.

Concerning your question on jumbo cases, we do become aware of a few large cases in the ten, twenty, even thirty million dollar range, where there is evidence that the case has been with one insurer one year and another the next. We have at times declined to issue such cases just for that reason. Cases of that size are usually reinsured and shopped around, so I think most people in the industry become aware of the practice. Those types of clients are going to find it harder and harder to get coverage in the future.

MR. OSTW: I would like to comment on the first question concerning changes in premium rates. It is easy enough to shift over a policyholder to a new set of premiums, depending in part on the volume of your current inforce and your computer facilities. I drew the distinction in my talk between shifting to a new premium basis and shifting to a new reserve basis under revised laws, about which I am sure nothing has yet been decided.

MR. CHARLES VONFANGE: I do not know to what extent older lives will continue to keep their insurance in force in the current environment, where more of that insurance is on a term basis or identified with products that have a heavy term element. When the contract and the risk cover one year at a time instead of the longer period of the traditional Cash Value type of contract, you are no longer able to cover insufficient charges with sufficient charges. As a consequence, it becomes more difficult to identify and accurately represent mortality at the advanced ages. There are parti-

cularly difficult problems with rated lives. How do you come up with a reasonable, accurate representation for mortality at an advanced age that is going to be both sufficient, and yet not superfluous?

MR. SHLESINGER: That is a real problem, and we are aware of it. As I did mention, we do build some extra margin at the ages above 70 into our term rates, and in addition, we limit the substandard classes at which we will issue term insurance. We really just need time and experience so we can price the product a little more sharply.

MR. LYKINS: There also may be some interest among reinsurers in reinsuring ART at higher ages. We know of at least one reinsurer who would be willing to come in at age 70 and pick up the risk on a policy that was sold at age 35. For a company that is concerned about what mortality assumptions to use at the higher attained ages, that might be one way to go.

MR. LAKENBACH: I would like to elaborate on the question of mortality. It is my view that the Equitable's assumption 110% at age 70 rating up to 130% may be somewhat inadequate. What we do is as follows: On the term side of the business, we have people lapsing, dying or converting. We assume that those who do in fact convert, convert at attained age mortality, which I believe matches your assumptions. However, we assume that those who lapse do so at select rates, e.g., if they are 45, they can buy a new policy and get a select rate at that point. Under these assumptions the only variable left is the term mortality which we then solve for.

We find that, depending upon the age at issue, the mortality on the term side goes to as much as 200% of permanent mortality. That is a much bigger difference than you seem to have. We hope that we price for it adequately but cannot be sure that that is, in fact, correct. This is more a theoretical calculation than anything based on experience.

MR. OSTUW: Yes, in my presentation I spoke of grading up rates by $1\frac{1}{2}$ to $2\frac{1}{2}$ points; however in other M&R offices some people have taken a more theoretical approach, keying off the lapse rates and assuming anti-selection associated with the high lapse rates. Depending upon the product, the issue age, the expire date, and other variables, you see ratios to the 65-70 table in the range of 250 to 300%. It is a theoretical approach; there is no hard experience to go with it.

MR. SHLESINGER: We do monitor from time to time term versus permanent mortality experience. To date, we have no reason to believe that there is appreciable difference between term and permanent mortality. We do have some margins in our term dividends, and in the event that the term mortality does turn sour, we have some cushion to fall back on.

MR. ROLAND DIETER: We do not do this theoretical mortality division, but I think the companies that do should keep in mind that the mortality tables used, the 65-70 for example, are based on groups of companies with various mixes of business and inherent lapse rates. So if you are going to back out the healthy lives, which I think is a good move, it is only the marginal change that is significant. Using the LIMRA Long-term Lapse studies, for example, you may find 10% lapsing in a certain duration compared to 11% in your term product. It is that additional 1% that you would logically assume is leaving at standard mortality, then back into the excess. Perhaps the earlier quoted 250% is a little too high for the following reason. At

earlier durations, especially the first two, I feel excess lapses are occurring across all subsets of lives originally underwritten as standard due to a combination of the current term commission structure and to a lesser extent, the insureds awareness of premium savings. However, as time progresses, I feel that the excess lapses will occur where the insured is expecting to qualify as standard and that the commitment to investigate re-entry is more likely to occur among these "super-select" insureds within the original cohort. Thus, while I will agree those leaving later should reasonably emulate newly underwritten lives, I feel the earlier excess lapses will include those which would have exhibited a decline in standard condition had marketing pressures not been what they are today and to assume as pure select mortality is present in that earlier excess lapse group as those at later groups is too pessimistic.

MR. OSTUW: To add to what I said before in keying off the lapse rates: That work was based on the spread between the anticipated lapse rates for a particular term product and something we can call "the expected lapse rates on the corresponding permanent product". Of course, there may not be a corresponding permanent product as there is not a single homogenous policyholder group that buys both products.

MR. EASON: Let me delve into the area of banded premiums. In my prior association, we developed a term product that used a policy fee of \$50. I did some testing to see how much of a discount that provided for the larger-size contracts, and I found that although the discount was significant as you went from a hundred thousand to a million and higher, the discounts being offered in the market placed on multi-banded products were substantially higher. There was also discussion by John Tiller in a session yesterday about large amount mortality which suggested that large amount mortality may be going back to the traditional pattern of being higher than that in normal size cases. This leads me to wonder if there are some methods being used in large band cases that have not come out so far--if modified commissions are being utilized--if marginal expense pricing is a part of it. Would the panelists care to discuss the different aspects of those developments, and whether they are consistent with sound actuarial practice and emerging experience?

MR. OSTUW: The greater increase of multiple premium bands, although good for policyholders and company in general, has actually aggravated the lapse problems, as it gives people more incentive to trade up and then lapse their old policies. In my pricing work, I have tried to set up band limits for high amounts that track pretty closely with the assumed per policy maintenance expenses only, because there is too much room for anti-selection by very high volume policies.

MR. SHLESINGER: I will just add on the subject of rate bands that we now have three bands: one from \$25 to \$100 thousand, one from \$100 to \$500 thousand, and one for amounts in excess of \$500 thousand. We have been looking into the possibility of having another band, perhaps at the million dollar level, but you just do not get much premium reduction by going from a half million to a million. The possibility of having a lower commission at that million dollar band is one way to solve the problem and get a more competitive product.

MR. JESSE SCHWARTZ: We have noticed that there are two approaches to the conversion privilege. One approach is to become more liberal, as Sam's com-

pany has, in the conversion privilege. The other approach is to cut back on the conversion privilege, recognizing that the reduction in conversion costs, particularly at the later durations, can be translated into lower premium rates. I wonder if someone would comment on the relative importance of a liberal conversion privilege vis-a-vis the reduction in premium rates.

MR. WALTER MILLER: I comment only from the standpoint of another large conservative eastern mutual company. Given that there is going to be some gap between the term rates written by just about any mutual company and the state-of-the-art non-par term rates, it becomes very helpful to design additional features into your term policy which push in the direction of more liberal conversion privileges, for example, conversion allowances of the sort Sam described, liberal waiver of premium benefits for the disabled converting to permanent policies, etc. If you cannot compete on the basis of pure numbers, you must look to design features.

MR. OSTUW: I see a divergence in thinking on the subject of conversion costs. For many companies the problem is nonexistent--therefore, they do not have to charge for it. Other companies feel they have to offer term, and they want to sell permanent. They do put in a full conversion cost into their term pricing, and this may have significant impact on their term rates. This is especially true if their recent experience has shown high conversion rates. Finally, some companies want competitive term rates and conversions, as well. They do not build much conversion cost into their term rates, and they accept a lower marginal profit on converted permanent business.

