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REINSURANCE TRENDS

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1. Why the recent movement from YRT to Coinsurance?
2. Should a company use a bulk or self-administered system?
3. When is it advantageous to use Coinsurance or modified Coinsurance on existing business?
4. Experimental Underwriting - what are the results?
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 - a. Use of telecommunications and computers to transfer the risks?
 - b. Lower rates and less service?
8. How have changes in reinsurance pricing affected ceding company pricing?

MR. HERMAN H. SCHMIT: Your panel for this Discussion Forum consists of three actuaries who work in three distinct aspects of the reinsurance industry.

Jay Novick is an Associate Actuary with North American Reassurance and specializes in the application of reinsurance to surplus relief, portfolio or block reinsurance and tax planning. His remarks will focus more on this aspect of reinsurance than on pricing trends.

John Tiller is Vice President and Actuary for Occidental Insurance Company. This puts him in the schizophrenic position of representing both a direct insurance writer and a major reinsurer at the same time. His comments will center on the pricing war going on among reinsurers and the dynamics of pricing between direct companies and the reinsurers.

Gerald Rankin is an independent actuarial consultant. He previously worked for North American Company for Life and Health where he was deeply involved with the development of competitive term products. He has also worked for a specialty reinsurance company. Now that he represents the consumers of reinsurance rather than the suppliers, he may present a different slant to the subject than Jay and John.

MR. JAY A. NOVIK: On May 20, 1981, The Wall Street Journal carried an article with the following headline, "Life Insurers Cut Federal Income Tax Using Special Reinsurance Arrangement." Quoting a few lines from this article,

"Prudential Insurance Company of America, the nation's largest insurance company, paid \$382.2 million in Federal Income Taxes in 1979. Last year, despite the growth of its business, Prudential's tax bill plummeted to \$120 million, less than one-third of the 1979 total. Prudential slashed its taxes using a 22 year old tax provision that has become increasingly attractive for life insurers as inflation drives them into higher tax brackets ... The tax magic is accomplished through transactions among insurance companies known as 'modified coinsurance'."

In the article, Richard V. Minck, Executive Vice President, American Council of Life Insurance, was quoted as saying that he believes the tax loss to the federal government from such transactions was approximately \$1 to \$1.5 billion dollars. The article also cites a \$265 million reduction in Metropolitan's Federal Income Tax.

This is not the first article concerning the use of modified coinsurance to appear in the general press. An article in Forbes Magazine entitled, "Robbing Widows and Orphans" appeared a few months ago. The article extensively discussed the use of reinsurance to overcome the inequities resulting from use of the Menge adjustment in the current economic environment.

The Wall Street Journal article has made it very clear that in the past few years reinsurance has been recognized as a major financial tool. It is unlikely that the previous total amount of tax savings resulting from all the tax planning done since the enactment of the 1959 Life Company Tax Act will equal the amount saved, or potentially saved, as a result of transactions involving modified coinsurance. The article states, "Mutuals are utilizing every opportunity to minimize their taxes." But it is not just Mutuals. All life insurance companies, mutual and stock, are utilizing every opportunity, including reinsurance, to minimize their taxes.

While the use of modified coinsurance has received much attention from the general press, reinsurance has also been instrumental in recent years in facilitating many of the marketing innovations in the life insurance industry. The sale of competitive term products in the mid-1970's created deficiency reserve problems for the writing companies; deficiency reserve relief through reinsurance greatly assisted in the expansion of this market. The development of the single premium deferred annuity as a major investment vehicle and the subsequent enormous growth of that market has been facilitated by the availability of surplus through reinsurance. The rapid growth of deposit term products has required both surplus and cash assistance through various reinsurance pools. The highly competitive select and ultimate term products which have dominated term sales, may only be possible as a result of the high reinsurance allowances available on the product. In summary, reinsurance has become a very sophisticated financial and tax planning tool and increasingly companies have been looking to the reinsurer for more types of coverage than excess risk reinsurance.

I would like to present some tax planning considerations which may affect reinsurance decisions if a need for additional coverage has been identified. While reinsurance cannot be motivated purely by tax savings, given that a business purpose exists, the company has the right to arrange its reinsurance in a tax-effective manner. Before starting, a brief review of some of the terminology is appropriate. It is generally understood that a Phase I company is a company whose tax base is taxable investment income. The use of the term Phase II has been somewhat less precise in the past. I will

refer to a company as Phase II positive when its tax base is taxable investment income plus one-half of the excess of gain from operations over taxable investment income. I will refer to a Phase II negative company as a company whose tax base is gain from operations.

The first type of tax planning that I will discuss is the increased utilization of dividends and special deductions. Since Phase II positive companies are able to fully deduct all dividends and special deductions, this aspect of tax planning concerns Phase I and Phase II negative companies. One vehicle that has the tax effect of increasing the utilization of dividends by a Phase I company is modified coinsurance with the Section 820 election. The Section 820 election converts a modified coinsurance contract to a coinsurance contract for tax purposes only. Modified coinsurance is attractive because it minimizes the cash flow between companies. Many large transactions could not have been accomplished on a coinsurance basis. A Phase I company should seriously consider coinsurance or modified coinsurance with a Section 820 election as a tax-effective alternative to the yearly renewable term reinsurance which many companies utilize.

Coinurance is a viable alternative for smaller transactions where cash flow problems are less serious. On occasion, a short-term promissory note is used with the coinsurance, to spread the negative cash flow over several years. Another choice, coinsurance with funds withheld, eliminates the problems associated with the transfer of funds and is a suitable alternative to modified coinsurance with the Section 820 election. This approach is particularly useful and justified where companies are reinsuring with non-admitted reinsurers. A recent court case, Western Diversified Life Insurance Company v. United States, 47 AFTR2d 81-702, held that maintaining the reserve deposit with the ceding company did not transfer a coinsurance contract into modified coinsurance.

When the funds withheld approach is used, an interest rate related to the current investment rates could be paid to the reinsurer. If either the promissory note or funds withheld approach is used with coinsurance, additional tax savings are achieved through the interest paid deduction.

Many companies have recently indicated interest in reinsuring group accident and health business. This line of business has historically caused problems for life insurance companies due to the year to year fluctuations that occur in the line. The short-term nature of group accident and health makes it better suited to a property and casualty insurer. Coinsurance would be the most effective reinsurance approach for a Phase I company. Letter Ruling 8007020, discussing coinsurance of group accident and health business by a life insurance company to a related property and casualty company, may be interesting to any companies considering reinsurance of this business.

In general, the most appropriate reinsurer to accept the coinsurance of group accident and health business is either a casualty company or a life company taxed as a casualty company. Since these companies have no limit on the deductibility of dividends, they would suffer no adverse tax effect by accepting the reinsurance.

Phase II negative companies may also increase the utilization of dividends and special deductions by transferring participating business to a reinsurer through coinsurance or modified coinsurance with a provision for reimbursement of dividends. The reinsurer will retain a portion of the profit of the

business and return the balance through an experience refund. This transfer of participating business can be accomplished in several ways. One is modified coinsurance to a reinsurer in a Phase II positive or Phase I situation. Since no investment income is transferred, the transaction would have no adverse impact on either type of company. A second approach is modified coinsurance with the Section 820 election. It is possible for such a transaction to occur, but it would be difficult to find an assuming company willing to accept investment income resulting from the Section 820 election and also to reimburse dividends to policyholders. The third alternative is coinsurance. Again, it would be difficult to find a tax-effective reinsurer; a company with an extreme need for life reserves or with a severe Phase III problem might be willing to accept a negative impact.

Another problem that Phase II negative companies face is the potential tax impact if excess interest on single premium deferred annuities or the difference between the current insurance premium and maximum premium on indeterminate premium products are considered dividends. The situation on both these items is currently unclear, although there are signs of potential positive rulings. To eliminate uncertainty as to the ultimate tax impact, these products may be reinsured on a modified coinsurance basis, as if the products were participating.

Another area where reinsurance of existing business might be considered is prior to the net level election. Coinsurance or modified coinsurance with a Section 820 election can be utilized to reduce or eliminate the opening reserve adjustment which is required when the net level election is made. The reinsurance must be made effective in the year prior to the taxable year for which the net level reserve recomputation is elected. The net level election may also prove to be a problem in a merger situation. In Revenue Ruling 80-116, a life insurance company that had elected to revalue its reserves under Section 818, merged with a smaller company that had not made such election. The Ruling held that no deduction was allowable for the difference between the revalued net level reserves and the preliminary term reserves of the smaller company. Portfolio reinsurance by the smaller company prior to the merger could have been utilized to avoid the loss associated with the initial net level election.

Stock life insurance companies are required to maintain a policyholders' surplus account (PSA) consisting of 50% of the excess of gain from operations over taxable investment income, plus the special deductions utilized in the computation of gain from operations. To prevent an excessive accumulation in the policyholders' surplus account, the balance is limited to the larger of 15% of the company's life insurance reserves at the end of the taxable year, 25% of the increase in such reserves since 1958, or 50% of the premiums and other considerations taken into account in the computation of gain from operations for the year. Many Phase II positive companies have a policyholders' surplus balance approaching the limitation. If the balance in the policyholders' surplus account exceeds the limitation, the excess must be subtracted from the PSA and included in taxable income. This is called Phase III tax. Accepting a block of business on a coinsurance or modified coinsurance basis can increase the limitation on the PSA by increasing either reserves or premiums. Reserves would be increased by coinsurance and probably by modified coinsurance with a Section 820 election. The initial reinsurance premium equal to the initial reserve transfer should also qualify as premium. All of the above methods as well as modified coinsurance without a Section 820 election will transfer current premium to the reinsurer

although there are some alternate approaches to calculating the amount of current premium transfer.

Reinsurance of existing business can have the tax effect of preserving potential expiring loss carryforwards. Either coinsurance or modified coinsurance may be utilized. Coinsurance generally requires a large transfer of assets to the reinsurer. Modified coinsurance requires a transfer of assets equal to the surplus relief provided to the ceding company. A combination of modified coinsurance and coinsurance in appropriate proportions minimizes the initial transfer of assets and may significantly reduce cost. Expiring loss carryforwards may be a particular problem in an acquisition. Where the acquisition is to be followed by a liquidation, losses must be utilized prior to the liquidation or be lost. Where the acquired company is not to be liquidated, short years resulting from the acquisition count as full taxable years for purposes of the loss carryforward.

MR. JOHN E. TILLER: My first remarks concern experimental underwriting. My company has not been extremely active in the experimental underwriting arena. Like most reinsurers, we have modified our underwriting posture and guidelines substantially over the years. The major thing about today's underwriting is the difficulty in coordinating it with pricing. Reinsurance pricing is very rapidly changing due to the competition levels of both the direct market and the reinsurance market. Adding to that a moving target of underwriting position places another degree of complexity to the pricing situation.

Regarding the administration of reinsurance, the future will see increased use of telecommunications equipment and computers to transfer risks. Already within our own affiliate companies most risk transfer and accounting is done via computer. This is just a form of bulk accounting, but we use this as experimentation in other areas. Our Canadian operation notifies us via telecommunication equipment of an excess risk above the family retention and handles the cession work.

Modern communications and computer techniques are attractive, but they are useful only when there is a large block of business to justify the high cost. Reinsurers are experimenting now with getting a tape from clients and using that as a reinsurance record to produce administrative data. The same guidelines will be used in five or ten years for electronic data transfers as are currently used on more manual bulk or self-administered systems. If there is enough volume to justify it, those devices will be used. There are unresolved problems in control and integrity of the system, but the major problem is to have enough work to make computerization worthwhile. Both the accepting company and the ceding company have to be in a frame of mind to use telecommunications equipment before this can become widespread.

The future will also see, at least temporarily, a trend towards lower rates and less service. The industry is seeing some of this already - ceding companies are less concerned with service and more concerned with rates in choosing a reinsurer (of course, clients still seem to want the services later). Reinsurance competition will eventually bottom out, at which point we will probably see a trend where service is once again very important. Service may not be as important an item as it was in the past, but ceding companies will continue to look to reinsurers for advice and for use of the "grapevine" to keep current on industry events. After all, a reinsurer can be a pretty cheap consultant. Therefore, it appears reinsurance may become

a little less price competitive and the market will reach a lull as there was in the mid-60's where everyone was pricing at about the same level. At that point, service will again become a leveraging factor on sales.

My comments on reinsurance margins and the effect of reinsurance pricing on direct pricing are intertwined -- and perhaps overstated in an effort to stimulate discussion.

Recently I overheard a conversation between a reinsurance actuary and his superior. It went something like this:

The Reinsurance Actuary's Lament

Where have all the margins gone?

Far away from here.

Where have all the profits gone?

Back to the reinsured.

Where have all the earnings gone?

Gone to market share, my boss.

But will they ever return?

Yes, they'll some day return.

When will that great day be?

Long after I'm unemployed.

Oh, won't we ever learn?

No, I doubt we'll ever learn.

If you think I am crying the blues unnecessarily, allow me to comment further. Pricing margins are extremely slim and many people involved are very concerned. The shift from YRT to coinsurance does not bother me as much as does the decrease in total margins. And what bothers me more is the shift of the vast majority of deficiency reserves, strain and tax uncertainties to the reinsurers. The use of indeterminate premiums has helped somewhat, but we are still seeing the surplus of the reinsurance industry being used up quite rapidly. I do not know what the total strain capacity of the reinsurance market is, but it is an unwise use of surplus to commit hundreds of millions of dollars to deficiency reserves and renewability reserves on cheap term products rather than toward true acquisition of business.

In a competitive effort, reinsurance mortality assumptions are being squeezed downward at an ever-increasing pace. However, most of this competition has been on extremely competitive term products. Many of these have very sharp slopes, exhibiting low initial rates and relatively high fifth and tenth year costs. A reentry term product or any poorly designed ART product will encourage lapses or roll-overs to some other company's product.

At the point of renewal for non-reentrants, business on the books of the reinsurer will likely be inadequately priced. I fear for the future of the reinsurance industry - that we will lose large sums of money somewhere down the road.

I hear of annual lapse rates, not first year but average annual lapse rates, in excess of 30% on high volume, term insurance accounts. It is doubtful that any of us have included that type of scenario in our pricing. Nor have we assumed the type of mortality deterioration that would accompany this persistency. The bottom result could be disastrous for some reinsurers. No company which is competitive today is immune from that possibility.

Most of us have assumed a rapid growth in business and relatively low renewal expenses. However, as we continue to see the roll-over of term business on an annual or bi-annual basis, we have to look at the possibility that our future expense margins are inadequate. This is so because we are going to have less business than projected; and this business will have inflated overhead and total expenses.

However, the most perplexing trend lately is the one towards first year allowances in excess of 100% of premium or at 100% with a high first year bonus. Some of these are being given without any form of charge-back and some with a charge-back. I am concerned with the actual cash outflow from the reinsurer to the ceding company. With our low overall margins, no reinsurer is pricing to get a 20% return on this money. However, when we consider putting out cash when prime rate is in the area of 20% and inflation as it is today, we should look at cash investment and our return on that cash investment. In short, our companies might be better off having no reinsurance operation and investing the cash elsewhere. There simply appears to be no "fat" in today's reinsurance margins.

The question regarding the impact of reinsurance on direct pricing is a fun one for me. It brings to mind a story I heard recently. To get to a meeting in Ottawa, a top reinsurance executive had to share a chartered plane with Canadian Prime Minister Pierre Trudeau, a minister and a young camper. The crew consisted of a single pilot. Somewhere over the wilds of Northern Ontario, the plane developed trouble and lost one engine. The pilot told his passengers of the problem, mentioned his wife and children and bailed out, leaving only three parachutes to be divided among the four passengers.

Mr. Trudeau, asserting privilege, as well as necessity, as the head of government for one of the world's largest countries, claimed one parachute and departed. The reinsurance executive, stating that he represented the totality of brains in the North American reinsurance business, claimed another parachute and jumped.

The minister then, reflecting upon his full life of service, expressed a desire to perform one last act of service by offering the remaining parachute to the youth. To this the youth replied, "Hey man, it's all right. That fellow who represented the totality of brains in the reinsurance industry just took my knapsack." I sometimes think we are all guilty of jumping without parachutes.

It is obvious that reinsurance pricing affects direct company pricing. The extremely competitive direct market of today would not be possible without reinsurance support. Which has been on the leading edge - direct pricing or

reinsurance pricing - and which as been in a reactive mode? Surely reinsurance must react to the direct market. If direct profit margins are getting lower and lower, then reinsurance profit margins will usually get lower also. But reinsurance pricing can lead direct company pricing, not just react.

As companies shifted a major portion of their portfolio to term and to competitive products and began to cede large volumes, response by the reinsurers became very competitive, with profit margins being cut one way or another. As more and more direct companies became more competitive, the word spread that reinsurers were being very competitive for large blocks of volume. As each company got more competitive in its pricing approach, it relied on the reinsurer to get more competitive also. Since reinsurers have become very aggressive and are once again willing to put up front-end money, this has allowed direct writing companies to become more aggressive. Without the aggressive changes in reinsurance pricing, we would not see the competitive level that we are seeing in the direct market today.

It is probable that the life insurance industry is selling its unique product - death benefits - much too cheaply. If that is so, it is certain that the reinsurance industry is selling its unique product - death benefit capacity - even more cheaply. This is partly because reinsurers are starting to look less at death benefits and more at tax considerations, GAAP earnings and market share. Reinsurers are also very concerned about developing a large market share. This is not necessarily bad, but we are all involved. Direct pricing has been affected by reinsurance in other ways also.

With the shift to term and to more competitive products in general there has been a parallel shift from YRT to coinsurance. The combination of these has had the impact of shifting a larger and larger proportion of the risks to the reinsurers. It makes you wonder if anybody is taking a risk other than the reinsurers. Obviously, the mortality risk has shifted. Now the persistency risk is also being largely shifted to the reinsurer. Coinsurance has traditionally done this. With first year allowances of 100% or more, we see that some companies invest little or perhaps nothing in the acquisition of new business. This means the reinsurer is not only accepting his portion of the acquisition cost, but actually underwriting the total acquisition cost for the ceding company. This creates a dangerous atmosphere where companies can write business without any regard to quality because they have a guaranteed profit via the reinsurance. In short, the old feeling of sharing - that the reinsurer and the reinsured would either both make money or both lose money - is gone.

The high first year commissions granted on many products today, especially term, would not be possible without high first year allowances from the reinsurers. Commissions on all products, especially term and deposit term, seem to be moving toward an unhealthy high level. When first year commissions reach such a high level, especially in relation to renewals (which are sometimes zero), then the agent has no reason to encourage persistency. His best tactic is to rewrite and replace the business as often as he can. We are seeing a deterioration of persistency, and a 5% shift in lapse rates on term business is enough to turn profitable business into extreme losses.

The question again occurs, which came first, the chicken or the egg? Did the ceding company ask for the support and the reinsurer respond, or did the reinsurer, through his actions, in some way actually encourage more and more competition for the agent with higher and higher commissions.

The automatic 100% first year allowance given by most reinsurers guarantees an early profit on large cases to most insurers. On a large case, the early profit is so large, the insurer can afford to make little or nothing off the renewals, especially after the sixth or the eleventh year. Knowing the profit to be high in the early durations and knowing persistency on term business to be poor, what with roll-overs and rewrites so high, it must be tempting to gamble on poor persistency. Encouraged by reinsurance competition, many insurers are designing, probably not intentionally, products and compensation packages which encourage high sales and high lapse rates. And why shouldn't they?

This is a sad, perhaps sick scenario. It encourages higher acquisition costs, not economy or efficiency; higher mortality and looser underwriting, not firm standards. If an insurer follows this philosophy, it becomes a general agent for the reinsurer with little or no interest in the long range growth or strength of the business. This eventually has to be bad for all concerned. No company strength is built, no investment dollars are created, reinsurers lose money and eventually capacity begins to shrink. But in the short run, the company's surplus and earnings grow rapidly. This is not to say high allowances are inherently wrong, just overused.

Many other risks of a business, rather than an insurance nature, are also transferred via coinsurance. Many products written today raise questions whether they are actually whole life insurance or term insurance. Do they qualify for the 818(c) election for Federal Income Taxes and if so, for how much of an adjustment? There are questions regarding the proper statutory reserves, especially deficiency reserves. There could even be questions regarding cash values on graded premium whole life policies. All of these potential surplus risks and tax risks are transferred to the reinsurer via coinsurance. This also has a very big impact on pricing. A direct company can price with much more assurance on these questions if the plan is co-insured.

Another change regarding ceding company pricing is that more and more companies now develop test rates which are submitted to a reinsurer for pricing. Only when they have firm coinsurance allowances is the product finalized and released for sale. This shows that the ceding companies have no sense of the market price for reinsurance. Every reinsurer is likely to be aggressive in one place and not aggressive in another. Ceding companies are moving their reinsurance from company to company based on the best price on a given product. Pricing is now a reactive process, not a controlling one.

I have said enough on the negative side and about the problems. Hopefully my comments above address the most pessimistic scenario and the future will be more positive. If we all - reinsurer and reinsured - work together for the profit of both parties, we should survive the next decade both employed and prosperous. But it will take hard work, restraint and cooperation -- and some parachutes.

MR. GERALD J. RANKIN: My comments will be made from the point of view of the consumer, since I represent small to medium sized insurance companies who depend upon favorable reinsurance in order to compete in the large policy market.

I will start out with some comments on the recent shift from YRT reinsurance to coinsurance. This shift is about five years old, and it is undoubtedly related to the emergence in the marketplace of annual renewable term as a popular product among consumers and general agents who bring us business. The popularity of the product is related to inflation in the sense that while higher amounts of insurance are needed, consumers have less dollars to purchase those amounts of insurance.

In 1974, my company specialized in the term market; and we were writing new business at an approximate level of \$400 million of paid production per year. When we dropped the rates for our ART, and came out with a fairly competitive commission package, new business jumped up in one year to about \$1.1 billion and stayed at that level thereafter. But, in 1975, the Trans-American Company came out with what we thought were unbelievably low rates in a banded premium product. Their production was substantial, probably in excess of \$2 billion. There were several other companies in the market at that time doing quite well with this type of product. It seemed that even small companies were in it. Some of these companies had less than one half a million dollars in surplus, so obviously they were dependent upon their aggressive position for coinsurance from reinsurance companies. In other words, we had a situation in which a large volume of ART was being written by many companies of all sizes; and much of it dependent on the use of reinsurance. The ART product generates much larger volumes of reinsurance than permanent insurance. Probably 50%-70% (or more) of all business ceded comes from ART products. The annual premium for a \$1 million policy at age 35 is probably in the neighborhood of \$1,000. This is not accidental death coverage, but life insurance. The same policy written on a permanent basis would probably generate an annual premium of \$12,000-\$15,000. So, the large policies are coming from this ART product.

The next area that I would like to comment on is the advantages of coinsurance versus YRT reinsurance.

First of all, with coinsurance there is a direct matching of reinsurance premiums with the gross premiums. We are all used to the idea of having a loss in the first policy year for a life insurance product, but the reinsurance premium exceeds the gross premium so we have a U-shaped thing where we have to hope that we keep the business in force for ten years, but after ten years we hope for it to lapse. The second probably more important consideration is the sharing or elimination of the surplus strain. Commissions on ART products for non-New York companies are probably in the neighborhood of 50%-80%. There are probably some out there in excess of 80%. Expenses are obviously a larger percentage of the premium than they are for permanent insurance.

Thus, a surplus strain is created from writing ART products. If business is written on a traditional basis of YRT, then there is also a strain on the reinsured portion. Coinsurance helps this problem, since the reinsurer shares in the surplus strain on the ceded portion, which may be 80%-90% of the risk in some cases. Another strain on the surplus, which is sometimes ignored, is caused by the reserves. The mortality reserve on the 1958 CSO table is greater than the gross premium or the gross unearned premium. While the difference is fairly significant on an annual premium policy, it is not significant on a monthly basis, because there is a deferred premium asset that offsets the reserve. On a policy year basis, there are no reserves, but when you get out in the real world and actually write \$500

million or \$1 billion of ART insurance, suddenly you have a fairly large deficiency reserve in excess of the due and deferred premiums, creating some surplus strain from reserve. So, another important reason for the shift to coinsurance is the deficiency reserve problem caused by competitive ART premiums.

There is a lack of uniformity in the enforcement and interpretation of the valuation reserve law as it relates to deficiency reserves and ART insurance. Some states have taken the position that this is really one year term insurance, so the only deficiency reserve required would be for the balance of the year on a non-annual case. Some states have interpreted the product with proper policy wording as whole life with increasing premiums and that the reserves would be a level percentage of the gross premium. Using this approach, it is possible to construct a premium schedule with high non-competitive premium rates and to come up with the present value of gross premiums in excess of the present value of \$1,000 of insurance. This would either eliminate or control the deficiency reserves. Some states accept this approach.

The third approach which causes some problems is the position taken by Texas. This position gives you the benefit of a modern mortality table, but it does not allow any of the actuarial footwork with level premium assumptions. This interpretation generally generates fairly heavy deficiency reserves. New York does not allow an ART product to be renewed past age 75. This eliminates any adjustment of premiums at the high ages. As I indicated previously, many of these products are written by smaller companies who are concerned about deficiency reserves. Coinsurance in effect transfers either implicitly or explicitly the deficiency reserve to the reinsurer. In some cases, the reinsurer has adequate surplus; in others, the reinsurer is in a state that perhaps has a more liberal interpretation of the whole problem; or perhaps the reinsurer is in another country that does not require them. But at any rate, it seems to get rid of the problem for the direct writing company.

In summary, from the buyer's point of view, coinsurance provides a better matching of premiums, surplus relief, and perhaps some help with the deficiency reserve problem. All of this is very good, but what is the cost? Well, surprisingly, the cost is lower for coinsurance than it is for YRT. If you look at a life insurance product, there are different types of risk involved. Mortality does not seem to be a serious problem; since the trend is down, you are fairly safe in assuming current mortality. Interest rates are going up, which helps your expenses in future years. The big risk is the lapse risk. Will we be able to keep the stuff in force long enough to get our return on investment at a reasonable rate of return. So, now we have our friendly reinsurer agreeing to take the lapse risk. And many companies are more than willing to give it to them if they want it. So, from the buyer's point of view, that is why coinsurance has become so popular.

Let us reverse our roles and look at it from the reinsurer's point of view, to see if we can understand why he has taken the position he has in the market.

First of all, there is a competitive situation here. ART is a large, growing part of the market. Some people may be chasing a share of the market rather than profits. That is perhaps part of the problem. Secondly, reinsurers,

at least in recent years, have made concessions on their YRT schedules. They have taken a fairly good YRT schedule and then come up with bonuses of 50¢, \$1.00, or even \$2.00 per \$1,000. This in effect converts their YRT schedule to a coinsurance schedule. When you are talking about having a large volume of business written below age 50, the allowance is almost as great as what you get under coinsurance.

And now I would like to go on to one of the other topics on the agenda, self-administration. Should a company design its own self-administration system for reinsurance? Let us look at the traditional approach of YRT reinsurance administration. Premiums are paid annually, which is a disadvantage to the ceding company since it is losing investment income. Secondly, there is an administrative problem with lapses. When you get a bill for the annual premium you have to check to see if the policy is in-force. If it is, you pay the annual reinsurance premium, and shortly thereafter the policy lapses. You then need a system that will keep track of lapses fairly well, or else you will wait a whole year to get your refund on the lapse. Thirdly, and the most important disadvantage of the traditional method of administration, is that you do not really have much information about your reinsurance costs. You receive index cards from the reinsurer giving the rates, but these are not computer readable. It is, therefore, difficult to do projections of what next year's reinsurance costs will be. If you wanted to study the effect or the savings, resulting from increasing your retention, you do not have the information directly available to do that. My former company felt that this lack of information was a very serious drawback; and even though we did not do the administration for billing, we did put summaries of our reinsurance records on the computer, our timeshare system in the actuarial department. This enabled us to make some of these actuarial studies and answer some of these what-if questions. In fact, with the new competitive position of the reinsurer, I understand this data base has been used to see what the increase in profits would be if they decreased the retention.

I have a client who developed their own administrative package mainly for the reasons I outlined above and they got an unanticipated bonus. When they had the system up, they realized that since they were doing the administration and they were providing the bordereau, it was now a simple matter to go to some other companies who were non-professional reinsurers who might be interested in getting some business at better terms than the professional reinsurers would offer. In one instance they did obtain additional leverage with the professional reinsurer to get more favorable terms; and in another instance they got some additional coverage or different traditional capacity.

I would like to shift to the related topic of reinsurance pools. Generally, pools that have been organized by non-professional reinsurance companies in order to increase capacity and save reinsurance costs have not been successful. The marketing of the company seems to change or the companies' underwriting philosophies differ; and they grow to not trusting one another, causing the pool structure to fall apart. One exception is the catastrophe pool, which was organized a few years ago. The reason for the success of that pool is that there is one company who has some financial incentive for the administration of the program. This is probably lacking when it is done by a group of companies. Pools have been organized by the reinsurers as a method of increasing their capacity. It is probably not generally known that many well-known, successful, financially-solvent reinsurers have relatively low retentions, some perhaps as low as \$200,000. So, if they

have a need to transfer large accounts for retrocessions, they have a need for capacity. And sometimes they cannot transfer the risk on as favorable terms as they receive it, which means they have a loss on the retrocession after the case gets so large. To alleviate this problem, some reinsurers have organized their own pools and use their clients as a capacity for the pool and that way if business is profitable they can pass some of the profits back to their clients as an inducement to get more reinsurance or lower cost reinsurance. Everybody gains. The business passed back to the client does not include the business that is put into the pool or you would have more retention than you anticipated. These have been relatively successful. There are at least two companies that offer this as an inducement for re-insurance.

Pools that are perhaps a little unique have recently been organized by companies with fairly large volumes of reinsurance. One company recently introduced a new product with very competitive premium rates, and based on their past experience, will generate a very large volume of reinsurance. They decided to visit all the principal reinsurers and offer a one-third quota share to three different companies (whichever three they could get to agree to come into the program). Each reinsurer would get a third of each risk, and the business was all coinsured and all self-administered. They felt that the fact that each company was only getting one-third of the risk would increase their bargaining power since the reinsurer would have less capacity problems. In addition, since it was self-administered there would be less cost to the reinsurer. More favorable terms were anticipated because of this arrangement. Another bonus was the remarkable increase in automatic capacity they received from this arrangement. They had previously had an arrangement where their automatic limit was four times their retention. With this arrangement, some companies probably have a capacity five or six times their retention. In any event, with the new program, each of the three reinsurers agreed for a five times retention arrangement. They thus ended up with fifteen times automatic versus the old five times. So they had quite a bit of flexibility in their own underwriting.

A less esoteric version of that is to give half the alphabet to each company. It is typical to split the alphabet between two companies. But what is different is that some companies have given the first reinsurer say five times the retention for letters A through K and then that same company would get from anything over five times up to ten times on letters L through Z. So, they would get a portion of both halves of the alphabet, one the bottom half, the second the upper half. Then, of course, they have to find a second reinsurer willing to go along with the complement of those two risks; so then they have increased their automatic from five times to ten times. And, in effect, that is a pool.

A more elaborate type of pool that has recently emerged in the marketplace involves a company that had a very large block of reinsurance business based on past performance and future market plans. This company decided to put all of its reinsurance needs into a single pool up to a certain limit. Once it set the terms, it solicited shares of that pool among professional reinsurers and anybody else who was interested in a share of the pool. Some of the business is coinsurance, some probably other terms; but this is in effect a company operating its own pool. We thus have two types of pools in the marketplace, some organized by the reinsurers and some organized by companies for their own business.

One advantage of this pool approach, besides eliminating the reinsurers' need for retrocessions, is that it is a nice resting place for nasty claims. If you have a claim at the \$2 million level, and there is some disagreement whether it belongs to the automatic carrier or facultative carrier, it is a very nasty situation if you have to find one that has to get the \$2 million claim. Whereas with a pool, perhaps you can split it up among twenty people and you make twenty people just a little upset as opposed to one big lawsuit.

I will close with a few comments on where have all the profit margins gone. I do not know where they have gone. The rates have become very competitive, and obviously they are not there anymore. Mortality assumptions originally seemed to be fairly reasonable, 90% in line with intercompany mortality. Then there was a shift to discounts for high income mortality. That shifted to non-smoker mortality, and it appears that now we are seeing rates based on future mortality and perhaps immortality.

Another important consideration in this ART product in both the reinsurance and direct market is lapse assumptions. Some companies have had fairly good success with renewal of ART products which is amazing since the rates do not stay competitive more than six months. Once it is out there for a year or so, there is always somebody that has some product at a lower rate. The agent then has the opportunity to shift that, with an increase in his own personal income and a saving for the buyer at the same time. But, there have been some notable exceptions; some companies have reported first year lapse rates in excess of 30% in some areas. So there is a real danger in the lapse risk in this product. Since nobody has any business that is really all that old that was written under the competitive market that we have today, it is very difficult to take your in-force business and look at the tenth year lapse rate on it and assume that the business you write in 1981 is going to have that kind of experience in 1990.

You might be somewhat curious about who is leading this parade of rate reductions, whether it is the direct writers, or the reinsurers providing favorable coinsurance quotes. It is undoubtedly both who are involved. The ART product is such that it can be sold through independent agents without having a company with a brand name. In other words, small companies can get in this market if they can obtain reinsurance. The agents have enough strength to sell their own clients so they do not need a brand name company. They are looking for the best deal for themselves or their clients or some combination thereof. The reinsurers have obviously helped that, because without reinsurers the smaller companies would not have been able to get into the market in the first place. So, I think it has been a combination.