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REINSURANCE

Moderator: DENIS W. LORING. Panelists: GORDON DOWSLEY, JOHN E. TILLER, JR., MICHAEL R. WINN. Recorder: EDWIN H. BETZ*

MR. MICHAEL R. WINN: For many years my company, Business Mens Assurance (BMA), has conducted a computerized mortality study on our reinsured business. The current base for expected deaths in our mortality program is the 1965-70 Select and Ultimate Basic Table. We review the output of our mortality study annually and, depending upon our concerns, review the mortality experience of different facets of our reinsured portfolio.

Mortality ratios show considerable variation by year; however, trends in our experience do emerge. In particular:

1. Our facultative mortality experience is almost always higher than our experience on automatic reinsurance. The difference has existed for such a length of time we felt it appropriate to reflect this difference when pricing reinsurance. Separately, we studied the experience of ceding companies where we participate in substandard shopping programs. Shopping programs did not contribute to the higher facultative rate. It is basically facultative reinsurance from automatic accounts that causes overall higher experience.
2. There is apparent anti-selection during the first five years after issue in our reinsurance portfolio.
3. There appears to be more anti-selection on facultative cessions than on automatic cessions during the first five years after issue.

In some years we analyze our experience by issue amount. Issue categories are 0 - 99,000; 100,000 - 499,000; 500,000 to 749,999; and 750,000 and above. Our studies by issue amount showed no conclusive results except for facultative cessions in excess of 750,000; here the actual to expected ratios are typically in excess of 100%. However, this category was only 11.1% of the total exposure. There's a general feeling among some reinsurers that there's a marked increase in violent crimes, accidents, suicides, and homicides. By detecting just a few risky applications during the initial underwriting process, we could prevent some unnecessary claims.

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We sampled direct claim experience for the years 1978 to 1982 to look for trends in our claim experience and attempted to relate those trends to the initial underwriting process. The study included only deaths within the first five years after issue. The leading cause of death was heart disease with 242 claims. Following heart disease was malignancies with 207 claims. Automobile accidents accounted for 180 claims. The results of these findings were not startling; however, our underwriters raised the question, "what can be initiated in our underwriting process to reduce the above number even further?"

With regard to malignancies, there does not appear to be any initial effective underwriting tool at this time. What we desperately need is a cure for cancer, but, short of that, we need some type of circulating tumor marker test that could be used routinely to detect many forms of cancer in an early stage. There's a great deal of research underway in the field of circulating tumor markers and a new underwriting and health tool may be available in the near future.

With respect to heart disease, we found the expected relationship of cigarette smoking, elevated cholesterol, and decreased levels of high density lipids. Unfortunately we did not take the findings seriously enough in the initial underwriting process.

In about 20% of the automobile accidental deaths, the blood alcohol concentration in the deceased exceeded 1/10 of 1%, which in most states is the legal definition of intoxication. Our underwriters believe that if more autopsy reports containing blood alcohol concentration levels were available, the number of automobile deaths directly linked to alcohol would have been much higher. Nationwide, 27,000 (or roughly 50%) of all motor vehicle deaths are related to alcohol. Alcohol abuse is also associated with other types of accidental death such as drowning, pedestrian accidents, suicides and homicides.

We firmly believe that the utilization of comprehensive blood profiles now available from Home Office Reference Lab, a BMA subsidiary, are a low-cost answer to effectively eliminating some accidental deaths, because blood profiles are particularly effective in the detection of liver damage. Statistics compiled by Home Office Reference Lab show that as many as 9% of the 47,000 blood specimens processed by them in 1982 had some type of liver profile abnormality. The actual experience of clients of Home Office Reference Lab indicates that early traumatic deaths are reduced by one-half when blood profiles are utilized.

One of the best papers I have seen concerning the pricing of annual renewable term (ART) was written by Robert Shapiro and John Snyder. The title of the paper is "Mortality Expectations Under Renewable Term Insurance Products" [1981 proceedings of the Conference of Actuaries in Public Practice]. This paper studies select and ultimate theory for pricing the extra mortality costs associated with renewable term insurance as well as withdrawal rates for the product, and analyzes the effect of varying one assumption while keeping others constant. My review indicated that, in most situations, by the 10th year expected mortality was in excess of that assumed when pricing the product.

It is difficult to talk about mortality experience without giving some consideration to persistency. The Shapiro-Snyder paper does an excellent job in combining these decrements. BMA has made its persistency experience available to the industry for the past two years. Our most recent study of persistency on ART plans is for the 1980 study year. We analyzed reinsurance cessions from their anniversaries in 1980 to their anniversaries in 1981. Our overall termination rate for coinsured annual renewable term plans was 18.4% for the 1980 study year, compared to 14.2% for the 1979 study year. Original reinsurance pricing for these products did not envision such a high rate for termination. Generally we find that termination rates on term plans begin at a level of 17% and increase by duration to about 20%. Our studies indicate increasing lapse rates with increasing cession size. Informal visits with other reinsurers lead me to believe that their persistency experience is similar to BMA's and, in some instances, perhaps worse than we have experienced in the past. BMA's next persistency study will be available in a few months. I anticipate some deterioration in the 1981 study year results. Conversion experience on coinsured annual renewable term continues to be in the 2% to 3% range. Our reinsurance pricing reflects our opinion of persistency as well as anticipated mortality.

Many reinsurers are currently taking a more realistic view toward the pricing of coinsured renewable term plans. In this era of high lapses and many replacements, some reinsurers are charging higher prices for plans that are most likely subjected to higher termination rates. Some reinsurers are encouraging their clients to introduce the persistency element into the underwriting process by asking more detailed replacement questions in the application and in inspection reports. More and more ceding companies are gradually going to some type of lower level commission structure.

At the Chicago meeting it was mentioned that during 1982 the collective experience of 10 reinsurers indicated that the ratio of claims plus coinsurance allowances and company expenses to premium income was 106%. Since premium included both first year and renewal, I believe you can see that from a simplified cash flow position some reinsurers may be losing money.

I would like to turn your attention briefly to mortality assumptions regarding smokers and non-smokers. Everyone involved in pricing is obviously aware of the State Mutual study and other single company results on the mortality differences between smokers and non-smokers. Many of you have likely reviewed a report prepared by a task force of actuaries called "The Report of the Task Force on Smoker/Non-Smoker Mortality". This task force got very detailed information from several companies that had been distinguishing between smokers and non-smokers for several years. This task force report is being used as a basis for preparing valuation tables based on smoking characteristics. It was the judgment of this group, based on their review of mortality studies, that the ratio of smoker to non-smoker mortality should begin at 1.5 at age 15, increase to 2.5 at age 45, and reduce to 1 by age 95.

These ratios were based on their thorough review of the experience trends and do not represent any extra margins of conservatism typical in valuation tables. In my position I have reviewed the pricing assumptions used by many companies regarding smoker, non-smoker, and preferred risks. Rarely does the ratio of smoker to non-smoker mortality reach these levels. In summary:

1. Proper use of blood profiles should assist in reducing accidental deaths. Major medical research will be necessary if we are to reduce deaths due to coronary artery disease and cancer.
2. Persistency experience on coinsured annual renewable term plans continues at high levels. The persistency picture will not improve until companies take away the incentives for agents and insureds to replace policies.
3. In pricing all products, the reinsurer should look at his experience, project any meaningful positive or negative trends and reflect this experience in actual pricing. Direct writers should do the same and not insist on making more on reinsured than on retained issues.

Finally, I believe that 1982 and 1983 will be pivotal years as far as pricing reinsurance products. I don't believe the reinsurance industry is in an overall profit position at this time, and it may be another year before reinsurers begin to act more responsibly.

MR. JOHN TILLER: Today's comments will survey several types of surplus relief vehicles. Due to time constraints I can only give a quick primer, covering only the first year transactions. In general, it is reasonable to assume the renewal years are expected to, in some manner, unwind and reverse the first year transactions.

To begin, let me briefly cover conventional surplus relief vehicles. While this is elementary to many of you, a thorough understanding of conventional products is essential to understanding the more sophisticated models.

Yearly renewable term (YRT) is not normally considered a form of surplus relief. However, a zero first year scale can provide relief to the extent of mortality and a mortality reserve. In fact, for a true ART product, zero first year ART is equivalent to coinsurance with a 100% first year allowance, except perhaps for premium tax reimbursement. A YRT scale combined with a production bonus can provide substantial amounts of surplus relief.

For the rest of my discussion, let us assume a generalized--very simplified--single premium deferred annuity (SPDA) product, written by ABC Annuity and Life Insurance Company. The principles can be applied to life insurance or any other coverage.

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ABC has collected 1000 units under SPDA contracts, with commissions and expenses of 100 and statutory reserves of 1000. Before any reinsurance, ABC's statutory accounting principals (SAP) Balance Sheet looks like this:

| Assets | Liabilities |
|---------------|--------------------|
| Cash: 900 | Reserves: 1000 |
| | Surplus: (100) |
| 900 | 900 |

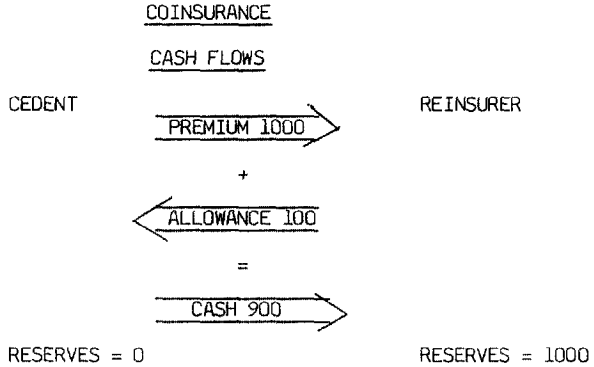
Reinsurance is desired to bring the surplus position back to its original position, or, in other words, to add 100 to surplus. In each of the five following examples, we will assume the following:

- . Initial Reinsurance Premium - 1000 (reserve)
- . Expense Allowance - 100 (relief desired)
- . Relief will be repaid out of future experience as it emerges
- . Experience refunds are possible

Let's now examine the first of five surplus relief vehicles.

. Surplus relief via traditional coinsurance.

Under traditional coinsurance, all reserves are the responsibility of the reinsurer, and cash flow is generally towards the reinsurer.



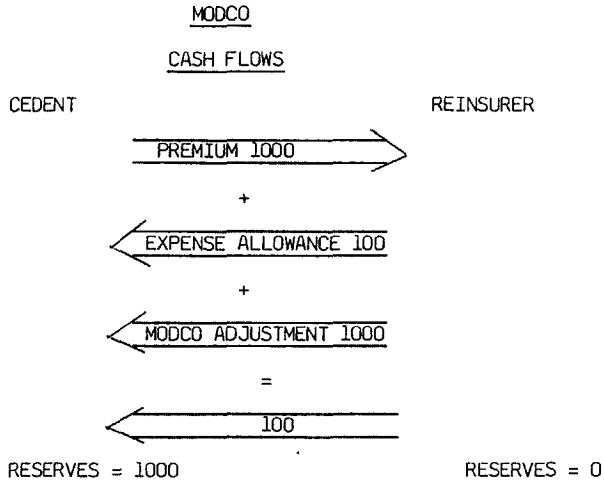
ABC'S SAP BALANCE SHEET
AFTER COINSURANCE

| ASSETS | | LIABILITIES |
|--------|---|-------------|
| CASH | 0 | RESERVES: |
| | | 0 |
| | | SURPLUS: |
| | | 0 |
| | — | — |
| | 0 | 0 |

Most ceding companies find this an undesirable position as they would like to manage the assets.

. Surplus relief via modified coinsurance.

Under modified coinsurance, reserves are held by the ceding company, and reinsurance cash flows are toward the ceding company.



ABC's SAP BALANCE SHEET

AFTER MODCO

| ASSETS | LIABILITIES |
|-------------|----------------|
| CASH: 1000 | RESERVES: 1000 |
| | SURPLUS: -0- |
| <u>1000</u> | <u>1000</u> |

While mod-co solves the cedant's cash flow and asset management opportunities, and in fact increases them, it causes the reinsurer more concern. In general, reinsurers are at least as reluctant to part with large sums of cash as are direct insurers.

This leads to a need for surplus relief with little or no initial cash transfers. There are, in fact, three primary reasons for cashless surplus relief vehicles:

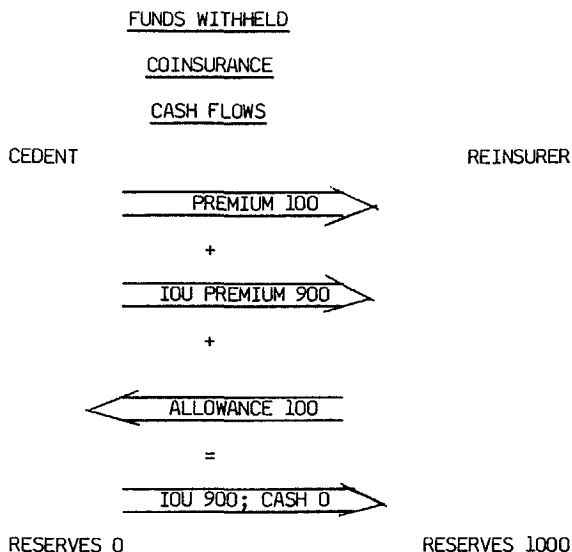
- a. Both parties prefer not to give up cash or assets.
- b. If the relief is in cash, the cost of reinsurance is usually higher.
- c. These transactions tend to reverse over time, thus cash transferred in one direction is usually returned over time. This can lead to swings in asset values and unnecessary exposure to loss in value when selling assets.

In short, the last decade of high inflation and roller-coaster interest rates has greatly stimulated interest in cashless surplus relief. There are five major ways of avoiding initial cash flows:

- a. Transfer some other asset, such as bonds, mortgages or stocks.
- b. Send an IOU, either with or without interest.
- c. Combine coinsurance and mod-co.
- d. Use a trust.
- e. Use a letter of credit.

- . Surplus relief via funds withheld coinsurance.

Funds withheld coinsurance is the same as traditional coinsurance, except that the portion of the premium which represents net cash flow to the reinsurer is an IOU, not cash, so no net cash changes hands. Reserves, including any 818(c) reserves, do pass to the reinsurer. Note that under the 1982 Tax Equity and Fiscal Responsibility Act (TEFRA) any interest paid by the cedant is not deductible in Phase I (taxable investment income) by the cedant. Such interest is taxable to the reinsurer. This part of TEFRA was introduced to prevent the widespread use of "son of modco".



ABC's SAP BALANCE SHEET

AFTER FUNDS WITHHELD COINSURANCE

| ASSETS | | LIABILITIES | |
|--------|------------|-------------|------------|
| CASH: | 900 | RESERVES: | 0 |
| | | IOU: | 900 |
| | | SURPLUS: | 0 |
| | <u>900</u> | | <u>900</u> |

The reinsurer has a 900 asset (account receivable) and 1000 reserve.

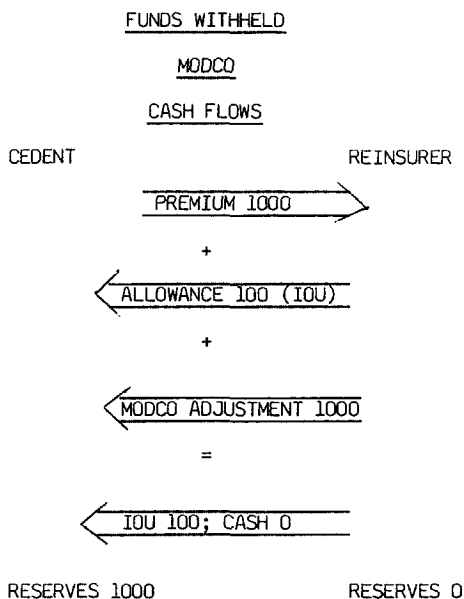
A problem with this approach is that total assets have been doubled. This procedure can also cause problems with investment limitations and company ratings.

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. Surplus relief via funds withheld mod-co.

Funds withheld mod-co is similar to traditional mod-co, except the portion of the transactions, usually a part of the allowance, which represents cash flow to the cedant is paid through an IOU (account receivable to ABC).



ABC's SAP BALANCE SHEET

AFTER FUNDS WITHHELD MODCO

| ASSETS | LIABILITIES |
|-----------|----------------|
| CASH: 900 | RESERVES: 1000 |
| IOU: 100 | SURPLUS: 0 |
| 1000 | 1000 |

In this case, any interest payable on the IOU by the reinsurer is, we believe, deductible in Phase I. A lesser doubling of assets occurs (the IOU is usually smaller than under funds withheld coinsurance). Reserves, both statutory and tax, stay with the cedant.

. Partially Modified Coinsurance (PARTCO)

PARTCO is the name we have given to a combination of coinsurance and mod-co. Under PARTCO, X% is coinsured and (100 - X)% is modified coinsured, with X being chosen to eliminate any initial net cash flows. In our generalized model, the pieces of the transaction look like this:

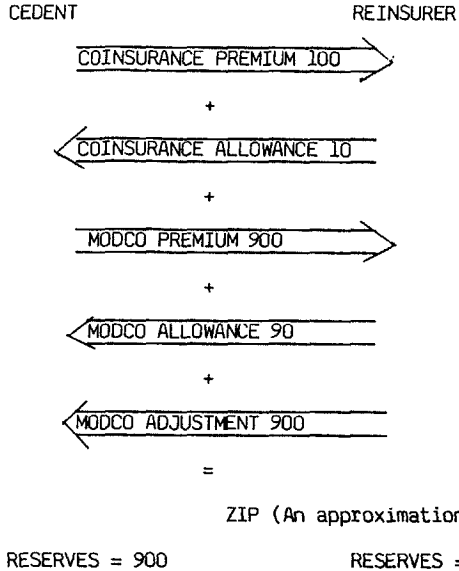
| PARTCO | | | |
|---------------------|--------------------|--------------|--------------|
| <u>REINSURANCE</u> | <u>COINSURANCE</u> | <u>MODCO</u> | <u>TOTAL</u> |
| PREMIUM | 100 | 900 | 1000 |
| EXPENSE ALLOWANCE | 10 | 90 | 100 |
| MODCO ADJUSTMENT | <u>-0-</u> | <u>900</u> | <u>900</u> |
| CASH FLOW OF CEDENT | (90) | 90 | -0- |

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PARTCO

CASH FLOWS



Note that the reserves are also split between the two parties. Any 818(c) reserves would be shared proportionately to the basic reserves. In some agreements, more than one plan may be reinsured. In such cases, all of one plan may be coinsured and all of other modified coinsured, or any other reasonable split used.

OPEN FORUM

ABC's SAP BALANCE SHEET

AFTER PARTCO

| ASSETS | | LIABILITIES | |
|--------|------------|-------------|-------------------|
| CASH: | 900 | RESERVES: | 900 |
| | <u>900</u> | SURPLUS: | <u>-0-</u> 900 |

Note that the true economic result of the situation has probably best been achieved via PARTCO. ABC has available for investment the assets produced by its sales, less any reinsurance expenses, costs or fees.

In renewal years, the percentage mix of coinsurance and modified coinsurance is generally adjusted so that the net cash flow equals only the reinsurer's share of any gains.

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As an example, consider the following results for the first year of ABC's PARTCO treaty.

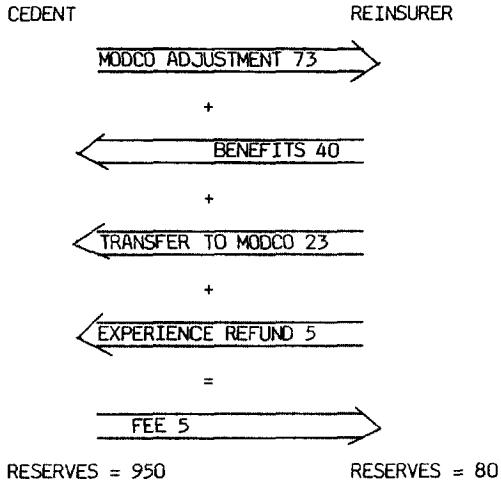
| PARTCO | |
|--|------|
| YEAR 1 EXPERIENCE | |
| INVESTMENT INCOME (from Mod-Co Reserves) | 100 |
| BENEFITS (Total Block) | 40 |
| RESERVE INCREASE (Total Block) | 30 |
| RISK CHARGE to Reinsurer | 5 |
| EXPERIENCE REFUND to ABC | 5 |
| SURPLUS REPAID by ABC to reinsurer | 20 |
| CO RESERVE INCREASE (10% of total) | 3 |
| MODCO RESERVE INCREASE (90% of total) | 27 |
| MODCO ADJUSTMENT (27-100) | (73) |
| Transfer of reserves from coinsured block to Modco Block (surplus repaid plus co reserve increase) | 23 |

The transfer of 23 from coinsurance to modco is accomplished to minimize the total cash flow. The percentage split of coinsurance and mod-co has now changed. This program was designed to "repay" the surplus relief over a period of years. Once the account experience (cumulative) is positive, ABC can recapture the reinsurance (subject to terms of the treaty). In general (as with this treaty) under PARTCO the coinsurance reserves equal the outstanding (unrepaid) surplus relief.

OPEN FORUM

PARTCO

YEAR 1 CASH FLOWS



Unfortunately, the time allocated to this session does not allow for full discussion of renewal year accounting. However, this simple example will give any interested party the general ideas.

I was also asked to comment briefly on offshore reinsurance and, in general, on reinsurance for regulatory differences. Basically, I see two reasons for foreign reinsurance:

1. Real economic benefit--the cost of reinsurance is in some way more favorable, or
2. Regulatory differences.

It is my belief that over 50% of today's offshore reinsurance is motivated by regulatory differences.

There are three primary advantages to offshore reinsurance:

1. Taxation may be more favorable or deferred. In fact, the foreign reinsurer may generate substantial tax reductions and share these with the reinsured.
2. Greater latitude of investment opportunities, or greater investment yields, may be available outside the United States.
3. Valuation standards may allow lower total reserves. In particular premium and cash value deficiency reserves are not usually required; also higher interest rates and mortality based upon experience, not state-dictated tables, may be possible.

A typical treaty may be structured to eliminate deficiency reserves. In such a case, an unauthorized reinsurer is preferred. PARTCO may be employed, with the basic reserve treated as modified coinsurance, the excess, or deficiency, reserve reinsured. Since the cedant cannot take credit for reserves in an unauthorized company, a bank issues a letter of credit to cover the excess reserves. Since such reserves are not required in the reinsurer's country, the deficiency reserves disappear--usually either into the Atlantic Ocean or into Lake Ontario.

The above sounds like a great way to create surplus. However, there are many disadvantages. In discussing these negatives, I will refer to the United Kingdom extensively. Other countries may have the same or different problems.

1. Reinsurance premiums to most countries are subject to a United States Federal Excise Tax of 1% of premium. The U.K. is a rare exception to this tax; there is no excise tax on reinsurance to the U.K. This tax is applied to the entire premium, not just the amount of surplus relief or reinsurer's profit.

For example, if ABC sought \$10 million of surplus relief from a Canadian company on \$100 million of annuities, the excise tax could be \$1 million, or 10% of the relief. Unless the relief will last for a long time, this cost is usually prohibitive.

2. Stamp duties may be required by the reinsurer's country. In the U.K. this tax is 50¢ per \$1,000 of face amount unless the underlying insurance is less than two (2) years, in which case the duty is 5¢ per \$1,000. There is apparently no comparable tax on annuities. Canada has no stamp duties. (In general, most companies have either stamp duties or are subject to excise taxes, but not both.)

Some reinsurers are experimenting with stop-loss to reduce excise taxes or stamp duties. However, stop-loss may not generate the desired reserve credit for the cedant.

3. Solvency requirements are being increased in many countries. Of primary notice now is that by April, 1984, U.K. companies must meet EEC solvency margin requirements. In general, these requirements are \$3 per \$1,000 of face amount plus 4% of reserves. These requirements may be reduced by up to 50%, but not eliminated, by retrocession.

Since U.K. companies must now have this surplus, it is reasonable to expect a charge to be included for its use.

4. To the extent that actual assets (not IOU's) are transferred, an exposure to currency fluctuations is created.
5. Letters of credit (LOC's) are flexible, generally helpful tools, but they can have negative aspects:
 - a. Cost - A bank will charge an annual fee from 1/8% to in excess of 1% of the line of credit authorized.

- b. LOC's must be "evergreen" to be accepted by most of the insurance departments. This means the LOC must be renewable and that the bank must notify the state department should either the bank or the reinsurer decide not to renew the LOC.
 - c. LOC's may be called upon the cedant for any reason, not just losses on the reinsured block. Some reinsurers are learning the hard way that their no-risk reinsurance with a LOC is a big risk and is a loser. Some modifications in granting and structuring LOC's is being done, but the expense and effort is not insignificant.
 - d. In the U.K., under certain conditions, the reinsurer may be required to set up a liability of the amount of the LOC, totally negating its initial value.
6. Finally, a trust is sometimes used to administer assets and allow credit for reserves. Such a trust would be set up in the domicile of the ceding company. However, trusts are expensive to manage and flexibility of asset management is sacrificed.

In conclusion, a new era of financial planning utilizing reinsurance is underway. The new tools are really redesigns and new applications of old concepts. But please, get a good guide to help see you through the forest of opportunities.

MR. GORDON DOWSLEY: When Denis first asked me to be on this panel, it was to be a panel of experts, which I think implied that our addresses would be well reasoned, precise and factual. On reviewing whom he had on his panel, he decided that he would change the format to that of a discussion group. This, of course, makes our addresses much different since we can be speculative, subjective and future-oriented. The big advantage is that we are not subject to an assessment by facts. I have chosen to comment briefly on ten trends that I see in reinsurance.

1) GROWTH IN THE MARKET

There is a lot of speculation as evidenced by the advance literature on this workshop, that the changes brought about by TEFRA would have an overwhelming impact on reinsurance activity, changes that would sound the death knell for large financial planning reinsurance transactions. Your presence at this conference is the personification of Mark Twain's statement that rumours of his demise were greatly exaggerated. You are here because the growth in the financial planning market is phenomenal and will continue to be phenomenal, despite or perhaps because of, any future tax law changes.

The power of reinsurance as a financial planning tool is so great that no company can ignore it. Any company not in this market today is not realizing its full potential - a dangerous strategic position in the changing financial markets. It was tax deals that brought many of the companies into the market in the first place, but they will stay there even though tax opportunities may no longer exist.

The ability to work backwards from desired financial results, for whatever reasons, through reinsurance is one of the few competitive advantages which our industry has. Who else can fine tune the bottom line, the sales and other crucial ratios as we can? Who else can generate their surplus for expansion as we can? Yes, financial planning reinsurance is a growing field.

2) INTERNATIONAL REINSURANCE

The largest reinsurance market in the future will be the international market, as evidenced by the fact that it was hard to get a ticket to Europe last summer with all the reinsurance people going there at the height of the tourist season.

- (a) International flows of surplus and capital are required to keep the industry viable.
- (b) International business is much easier through reinsuring local firms than through direct writing. It's always easier to get into another territory than to get out. The cost to administer those last few policies in a nationalistic country is horrendous.
- (c) The third point for financial planners is that the advantages to be gained going across borders could be multiplied many times around the world.

3) INVESTMENT RELATED AGREEMENTS

The largest domestic market for reinsurance will soon be the investment related market. Growth here will be geometric and it will go to the companies with the most resilient investment areas.

Immunitization has proven indispensable and several companies cannot match assets and liabilities adequately while maintaining liquidity. They will need to pass that risk to others in both Canada and the United States. Currently, very few companies have both the reinsurance personnel and the investment personnel to handle such transactions. Those which do will reap the rewards.

4) IMMUNIZING AGAINST THE COST OF SURPLUS

It is time that we turned attention to immunizing against swings in the cost of surplus.

There is a very real possibility that the price of surplus will double in the near future. Such a development will throw many companies into jeopardy who borrow surplus to write business.

About three years ago it would appear that surplus was disappearing very quickly in the North American markets, and it would have been very difficult to locate any substantial amount which could be borrowed. Two things happened. North American companies became more willing to rent surplus with several entering the market for the first time. European companies also brought a lot of surplus to our market. The market price fell accordingly. The question is, what will happen to this European surplus if some of our large annuity writers should go bankrupt? If the Europeans are scared off, then the surplus may dry up very quickly and the price may soar.

Offsetting this possibility are (a) the current trend of large industrial companies to supply surplus to the insurance market through their life insurance subsidiaries and (b) the fact that a great deal of surplus can be generated by the various techniques which are emerging today. For example, many assets are disallowed on some company's balance sheets, but are allowed on another and hence the passage of these assets can generate additional surplus within our industry. Even a medium size company could provide a few hundred million dollars of surplus relief through these techniques.

Actuarial attention is definitely needed when the future cost of surplus is open to such wide swings.

5) THE INSOLVENCY ISSUE

The major area of concern in reinsurance today is the result of insolvency on either the ceder or the receiver. No one knows exactly what happens in an insolvency since there are so few laws dealing specifically with a reinsurance arrangement in the case of insolvency and there is so little litigation. I think it is safe to say, however, that the insolvency provisions in most reinsurance agreements would not protect the solvent party.

There are several strategic points which bear on this issue.

- a) The ultimate resolution of an insolvency conflict will depend on the State Insurance Commissioner. He is an official, either elected or appointed, who is going to be under tremendous political pressure and hence his decisions will be influenced to some degree by that pressure. In his position as Commissioner he has a great deal of influence over any company wishing to operate in his State, and he may well decide that the correct resolution of the issue is one which saves the company domiciled in his state, regardless of the intent of the treaty or the effect on the solvent company.
- b) The insolvency laws do not apply to insurance companies and therefore we cannot necessarily look to them for comfort; however, the courts could look to them for guidance. Because the area is so unclear, we do not know if the example would be good or bad for the solvent party.
- c) In insolvency it is not clear if a netting of payments would be allowed and if so, would the dollar which the solvent company is to pass to the insolvent company be offset by, say, 80 cents coming the other way. If the trend to fancier surplus relief operations continues, then the insolvency provision becomes more important. It is fine to help the small companies, but the underwriting is very important unless you wish to pour a great deal of cash into a cashless transaction.

6) CEDING BUSINESS MORE THAN ONCE

I have argued for some time that the same block of business can be ceded more than once. I even have a legal opinion that agrees with this position, provided that claims are not collected twice.

Would a company do this? Well, there are many cases where claims net out through the experience rating refund and hence the size of the claims or the absence of the claims would be of little consequence to either party. In cases such as this, it could make a lot of sense for a company to cede the same block of business several times.

For example, a product based on future investment earnings might depend on interest rate futures contracts for immunization. A company might not be able to hold futures or be sophisticated enough to do so. In such a case it could cede the investment risk. The mortality risk meanwhile could go to their regular reinsurer on a yearly renewable term basis.

Representative Pete Stark has proposed the unbundling of insurance policies into savings and risk elements and taxing the company on two fronts (a) the underwriting gain and (b) the investment income. This is not an unusual proposal since Representative Stark obtained his master thesis at MIT with the title "Buy Term and Invest the Rest".

However, for reinsurance this could be a great opportunity since Congress may legally recognize two components to insurance and hence tacitly endorse the concept of ceding the same block of business at least twice, once for investment risk and once for mortality risk. The opportunities are immense, even though a few companies might have difficulty keeping track that certain percentages of each of its policies are ceded several times. No doubt, minor adjustments to the computer system will probably solve that problem.

7) CHAIRMAN WILL HAVE MORE TIME

Pensions are now fully deductible in Phase I and the large Phase I companies are no longer forced to use modified coinsurance in order to protect the interests of the unfortunate people covered by their pension plans. This undoubtedly will bring much peace of mind to the executives and boards of those companies who were so concerned and worried about their policyholders that they entered into these mammoth agreements purely to protect the interests of these people.

The chairmen of two particular companies are now freed from the awesome responsibilities that they might have to carry out their threats to go to Washington to expose what other companies were doing with "mod co", which incidently was exactly the same as what their own companies were doing except the others were trying to reduce taxes while those two were trying to protect their pensioners.

8) LEVEL PLAYING FIELD

Reinsurance and taxation actuaries should hope and pray that the "level playing field" approach is adopted by the U.S. Congress. Such an approach will present logistical problems in taxing our policyholders, so in a speech to the Annual Meeting of the Association for Advanced Life Underwriting on March 1, 1983, John E. Chapoton, Assistant Treasury Secretary for Tax Policy hypothesized an additional tax on investment income at the corporate level in lieu of taxing policyholders directly. This general approach is what we had in Canada from 1968 to 1977, known as the Part XII Tax. You can only hope that this actually happens. Such an approach with two interacting taxes, the investment income tax and the corporate income tax, will keep the tax planning actuaries in business for many years, and you can be sure that the rewards for the most imaginative ones among you will be very large.

9) RELATED PARTIES PROVISION

The biggest non-issue today is the TEFRA provision on related parties by which the IRS has the right to unwind any such agreement in order to allocate the tax, as it wishes, between the two parties. The IRS received no more power than it already had under the general provisions of the code, particularly Section 481, so anyone who is suddenly concerned for the first time is really only saying he was naive before. Reiterating these powers, however, does indicate that the IRS will try to upset any agreement which it views as a "Tax Deal" with all the means at its disposal, even if they are the same means which have always been available.

10) 818(c) ELECTION

It is more likely to snow in July than that the 818(c) election will survive a rewriting of the code. I really can not believe that Washington can let us have that advantage in the current revenue crunch, especially with the leverage, or the perceived abuses, depending on your point of view, which is being used.

In the Senate Finance Report at the time of TEFRA, it was stated that eligible policies must have substantial cash surrender values or level premiums within a reasonable time. Graded premium whole life is in trouble and I hope that anyone looking for an extra deduction by receiving blocks of that business does not pay very much for it, otherwise he may be disappointed.

CONCLUSION

For those who like to pick up technical points, I have four to conclude my presentation:

- (a) TEFRA washed out modified coinsurance and in its wake washed out, or seemed to, coinsurance with a note which is, of course, a much different reinsurance vehicle. However, in the drafting of the law it seems quite clear that interest on a note involved in a coinsurance transaction is not deductible for a Phase I company but is still deductible for a Phase II negative company. It is also deductible for the receiving company.
- (b) If Section 818(c) is repealed something will need to be done about the built up reserves that exist now and reinsurance could be a possibility.
- (c) Under the new 338, a question exists of whether it is tax or statutory reserves which are allocated to value the assets. Naturally, the IRS will go for the tax reserves in order to obtain more good will, at least on the balance sheet. It is an open issue that will affect reinsurance in mergers and acquisitions.

- (d) The deficiency reserves on annuity products which were disallowed in the calculation of gain from operations are allowed in the calculation of the qualification ratio and, hence, could have unforeseen effects in a reinsurance transaction.

MR. JOSEPH L. TUPPER: To what extent is reinsurance like casualty coverages?

The mortality risk is like the risk faced by a casualty insurer in that lots of claims can happen to the individual reinsured.

MR. DENIS LORING: Perhaps one of the disasters in the reinsurance industry in the last few years has been precisely the pricing and treating of reinsurance as a commodity item, and in viewing it in that sort of casualty environment as opposed to what reinsurance used to be ten and twenty years ago.

MR. TILLER: I think about it more as a group policy. There is the same type of analogy.

MR. TUPPER: My question was motivated by concern that an underwriting cycle is developing in the reinsurance business.

MR. TILLER: I was on a reinsurance panel in 1980 and the comments from the panel predicted the possibility of an underwriting cycle, and this is what Denis was talking about with the commodity price structure. Gordon referred to that with the potential drying up of surplus. Mike referred to it as reinsurers pricing more responsibly. Reinsurers are no longer chasing market shares the way they were. Companies are actively withdrawing from certain markets in support of certain products.

MR. NICHOLAS BAUER: Have any reinsurers separated ART lapse rates by company? If they have, is there any relationship between persistency and steepness of their premium scales, whether they are smoker/nonsmoker or aggregate and variables of this kind? In other words, to what extent are those very poor persistency results the inevitable product of very poor pricing or underwriting?

MR. WINN: I think there are two aspects to your question. One concerns the distribution system of the product, and the second concerns aggregate versus nonsmoker/smoker. We have looked at our experience and ferreted out some companies who have been very active in the brokerage market area. Upon doing that, we found that our overall experience was not affected that much. However, our experience may differ from other reinsurance companies. We have brokerage operations but they might not be in the high rolling area of the brokerage market place. We did not find any difference by looking at brokerage areas.

We have been coding cessions by smoking characteristics for about two and one-half years. We haven't analyzed that aspect of our portfolio yet. I don't think we had any deaths in the nonsmoker exposure, but our exposure was very small.

MR. TILLER: As a reinsurer, my company tries to stay away from most of the brokerage market. We feel we are getting enough from our direct side. The major difference that we have discovered is a higher lapse rate with a higher size. We try to reflect that in our pricing. There is a tendency to believe that the higher sizes are sold in the brokerage market.

MR. WINN: I have talked to other reinsurers that do participate in the very, very competitive brokerage market and they feel their lapse experience is much higher than the figures I gave to you earlier.

MR. JOHN WOODY: It might be noted that the experience that we are talking about is the experience on individual risk. It is not the experience on the portfolio reinsurances that have been placed in the last few years.

I must say that I was impressed by the number of deaths that Mike referred to. I almost threw out the last mortality study I ran because I didn't have enough deaths. I think in discussing these things we do have to pay more attention to the statistical significance of what it is we are finding in our numbers.

MR. CHARLES P. ELAM: Mr. Winn mentioned a trend toward underwriting the persistency risk on low premium ART plans. Are reinsurers more receptive to the plan when those steps are taken?

MR. WINN: I believe so. My company a year or two ago instituted a program on facultative reinsurance to attempt to spot cases that had a significant lapse record. We focused on cases above \$250,000. We could only get to facultative cases because automatic case cessions come to us without papers. If a case showed a pattern of terminating and issuing, or assuming a new plan twice within three or four years, we would contact the underwriter at the client company and discuss with him the persistency record of this case. We would review how our actuarial area had priced business on this plan for that client. Companies may start asking detailed questions about the replacement history in their insurance applications.

MR. LORING: As a retrocessionnaire the Equitable sees many reinsurers' practices. A number of reinsurers are installing well-defined programs for underwriting persistency on facultative business and publicizing them. For automatic accounts, reinsurers are examining their lapse experience by ceding company and then going back to the ceding companies that show poor lapse experienced, to find out why, and to work with them to improve it. If necessary, they will cancel automatic accounts where the lapses make the account unprofitable.

MR. DOWSLEY: We should look at reinsurance as more than just covering excess risk or providing surplus relief to write new business. In both the United States and Canada insurers tend to be very North American oriented, instead of world oriented. I am very impressed by some of the U.K. and European companies who are in this international business. They are working much like a petroleum company or a mining company; these other industries in North America can move their production around the world. We can do the same through the reinsurance. By changing their retention limits, the U.K. and European companies are changing their production in different parts of the world. They are shifting their taxes around the world so that the big tax hit is coming in the countries with the low tax rates. They are shifting surplus, more in property and casualty than in life; where they have hurricane coverage, they are going to have lots of surplus to look after this year's claims. Their horizon is so much bigger than ours. I hope that our industry can become more world wide.

MR. TILLER: A major difference between North American and European interests is the time focus. In the U.S. and probably Canada there is tremendous emphasis on today's results, next quarter results, or one or two years out. The companies overseas are much more interested in the long term, where they'll be 10 or 20 years from now.

