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REINSURANCE

Moderator: JAY A. NOVIK. Panelists: DAVID M. HOLLAND, ROBERT P. JOHNSON, MELVILLE J. YOUNG.

Recorder: OWEN WHITBY

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MR. JAY A. NOVIK: Reinsurance has been receiving substantially more attention over the past few years. Prior to the 1970's reinsurance had a much more limited impact on the life insurance industry. Reinsurance decisions were usually made on underwriting considerations and in the Underwriting Department; actuarial pricing was a much less important component of the reinsurance decision making process. Few companies considered tax impact in their decisions. This has changed considerably over the past few years. Actuarial pricing considerations, i.e. reinsurance commission and allowances, have become the primary decision-making element in the process. Reinsurers have responded to this change in approach very successfully. A group that had previously resembled a herd of sheep grazing peacefully started to look more like sharks in a feeding frenzy. This frenzied activity also extended into a search for more innovative approaches to reinsurance. In the financial reinsurance arena, surplus became a commodity, and Modco 820 a household word.

We are fortunate to have three of the most knowledgeable actuaries in the reinsurance area making presentations today. Dave Holland is Senior Vice President and Actuary at Munich American Reassurance. He will to start our presentation with a review of reinsurance experience over the past ten years.

Melville Young, Vice President of General Reassurance, will comment on the effective use of surplus relief. Bob Johnson, Vice President of North American Reinsurance will discuss tax planning with an emphasis on the changes incorporated in the TEFRA Amendments.

MR. DAVID M. HOLLAND:

Recalled to Life

"It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the other way - in short, the period was so far like the present period, that some of its noisliest authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only."

Dickens' introduction to A Tale of Two Cities is a poignantly apt description of the modern reinsurance industry. Considering the volume of modified coinsurance, the in-force during recent years is probably greater than during any other period in the history of the world. Even excluding modified coinsurance, the amount of reinsurance assumed has increased approximately 1400% over the past ten years. Yet consider the following from the January 1983 issue of The Ohio Underwriter:

"There are signs that the combatants are growing weary of one of the biggest price wars in the history of insurance. A number of reliable sources estimate that the lapse ratios for yearly renewable term are running at somewhere between 30% and 40% - or at least twice as much as anyone had expected when calculating today's rates."

This combination of the best of times and the worst of times is particularly evident in the property and casualty insurance industry. The March 28, 1983 issue of Best's Insurance Management Reports states:

"...although the property/casualty insurance industry in 1982 suffered its worst underwriting year since 1906, many of the ratios used as indicators of the condition of the business showed improvement, and aggregate surplus increased substantially. The incongruity is due of course to the increasing preponderance of casualty writings and the dramatic increase in loss reserves which have thrown off remarkable increases in investment income. Thus while the industry's operating results appear to be favorable, its underlying business is in distress."

Business Insurance (BI) (March 14, 1983), indicates that 1982 may be the worst underwriting year in the property/casualty industry's history. BI says, "Most of the insurers blame their poor 1982 performance on the usual

culprit: unabated price competition in commercial lines...." Also, there is concern over cash flow underwriting, that is accepting underwriting losses to generate investment income on the cash flow in hope that the overall results will be positive. BI quotes, "The bottom line is that we may be seeing a facade of false numbers which may further delay a return to more realistic pricing."

These problems in the direct property/casualty industry have also had an effect in the reinsurance industry. The March 21, 1983 issue of Business Insurance has a front page article entitled, "Reinsurance Renewals Signal Higher Rates." Based on predictions of Lloyd's of London brokers, BI reports:

"Many insurers will offer buyers lower limits at increased premium rates for many classes of business by the end of the year.... The whole reinsurance scene is tightening up like mad.... People in the London market suddenly decided that they were losing money in proportional treaties and began saying 'no' to a lot of treaties...."

So much time is devoted here to the status of the property/casualty industry because some of the problems in the property/casualty reinsurance industry are also present in the life reinsurance industry. Bottom line technical results are masked by high investment yields, special retrocession arrangements, modified coinsurance profits, and GAAP amortization of deferred acquisition costs. Given atrocious lapse rates, mortality antiselection and unabated competition, the underlying business may be expected to be in distress.

Facts for Appearances

Anyone who has been actively involved in the reinsurance market over the past ten years is aware of its phenomenal growth. However, we are usually so busy reacting to today's problems, that it is difficult to appreciate just where we have come from.

To help establish such a perspective, information has been collected on a segment of the ordinary reinsurance market over the past ten years. Aggregate financial data such as ordinary reinsurance premium income, claims, commissions, expenses, and increase in reserves were obtained by survey from ten reinsurance companies for the period 1973 - 1982. These ten reinsurers accounted for approximately 75% of both the reinsurance assumed and the reinsurance in force in 1981. The data were adjusted to exclude portfolio and large modified coinsurance transactions.

The purpose of the data was a general portrait of the reinsurance industry, and thus we were concerned with convenience of preparation from existing working papers for financial statements rather than uniform standards necessary for pure scientific evaluation. Although there are certain variations in reporting, the resulting information seems quite meaningful in a general context. In addition to financial data, information on reinsurance assumed and in force was obtained from surveys prepared by North American Re.

I would like to express my appreciation to those companies who participated in our survey.

It Was the Best of Times

Chart 1 shows the growth of the reinsurance segment from 1973 through 1982 using 1973 as a base year. Reinsurance assumed for 1982 was over 14 times that for 1973; this corresponds to a growth rate of approximately 34% per annum. As can be seen from the chart, the really significant growth in reinsurance assumed started around 1978. The growth rate from 1973-1978 was 17% per annum, and the growth rate from 1978-1982 was 59% per annum. In-force grew, but not as rapidly. The reinsurance in force in 1982 was 8.6 times the in-force in 1973, which produces a 27% per annum growth rate. The in-force growth rate for 1973-1978 was 15% per annum and for 1978-1982 was 43% per annum.

Chart 2 shows the progression of ordinary premium income from around \$165 million in 1973 to over \$710 million in 1982. (One company is excluded from 1981-1982 absolute numbers since data were not available with adjustment for portfolio and modified coinsurance.) Although premium growth has been steady, premiums have not grown as rapidly as reinsurance assumed or in force.

Chart 3 shows the progression of claims from around \$98 million in 1973 to over \$366 million in 1982. Over this period claims grew at a rate of 15.8% per annum and premiums grew at a rate of 17.6% per annum.

Chart 4 shows the ratio of claims to premiums. Surprisingly, the highest claims ratio occurred in 1973 and was 59%. The claims ratio exceeded 50% for 1973-1975 and 1982. For other years, claims ratios varied from 42% to 45%. As might be expected, there is significant variation by company for each year. In 1982, the highest ratio for a given company was 73% and the lowest was 33%.

It Was the Worst of Times

One objective of collecting these data was to perform a regression analysis on items such as premiums, claims, and in-force. One set of regression analyses was prepared on an industry basis using total results for all companies by year (10 observations), and another set was prepared on a company basis using each company and year separately (93 observations).

The following values were obtained for the standard linear regression equation $y = ax + b$.

Dependent Variable (y)	Independent Variable (x)	Correlation Coefficient (r)	Equation (a)	Coefficients (b)
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A. Industry Basis

Claims	Premiums	.977	.458867	4.61387
Claims	In-Force	.986	1.83737	68.9099
Premiums	In-Force	.948	3.75993	154.218

B. Company Basis

Claims	Premiums	.949	.493084	-.869981
Claims	In-Force	.888	2.4649	3.59801
Premiums	In-Force	.905	4.83083	10.0992

Multiple linear regressions were also prepared with claims as the dependent variable and premiums and in-force as the independent variables. Coefficients of multiple correlation were .995186 for the industry basis and .951667 for the company basis. For both of these the F-ratio was extremely high indicating a probability of chance in the relationships of less than one per thousand. For both the single and multiple regressions, the correlation is excellent. See Tables 1 and 2.

Charts 5 through 10 all show the results of regression analysis on an industry total basis. In looking at these charts, concentrate on overall fit and on the deviation in 1982.

Chart 5 shows claims regressed over in-force. The fit is quite good (r of .986). Chart 6 is the same data plotted by year rather than on a standard regression basis. For 1982, predicted claims exceed actual by about 4%. On this basis 1982 seems basically in line with expected.

Chart 7 shows claims regressed over premiums; r is .977. The slopes of actual and predicted are quite similar, with the predicted being higher for 1976-81, but with a sharp increase in 1982.

Chart 8 shows similar results by year with claims exceeding those predicted by the regression model by around 10% for 1982.

Chart 9 shows premiums regressed over in-force. The fit is not quite as good as the others with r being .948. There is a significant drop in actual premiums in 1982 which also shows up on Chart 10 by year. For 1982, the regression model predicted premiums in excess of actual by around 12%.

From these charts, claims in relation to premiums were high and premiums related to in-force were low. Chart 11 plots premiums per thousand in-force and claims per thousand in-force. Both premiums per thousand and claims per thousand are declining, but unfortunately since around 1977, premiums are declining more rapidly than claims. There are a number of explanations for this trend. The large volume of new business being written, especially competitive coinsurance with select nonsmoker rates, is probably the major one.

Chart 12 shows the development of total commissions. The rise from \$16 million written in 1973 to over \$318 million in 1982 is particularly dramatic. This is an annual growth rate of nearly 40%. Reinsurers are providing substantial financing to the direct market. Chart 13 shows the growth in commissions as a percentage of premiums which ranges from 10% in 1973 to 45% in 1982. This percentage varies widely by company; for 1982, the commission to premiums ratio ranged from a low of 28% to a high of 63%. Chart 13 also shows general expenses as a percentage of premiums which for the industry has been relatively flat at around 10%.

The sharp increase in commissions as a percentage of premiums changes the impression given by looking at the development of claims to premiums. Chart 14 shows the ratio of claims to premiums net of commissions. Note that for 1982, this ratio is 93% overall and by company ranges from a low of 75% to a high of 150%.

Chart 15 shows expenditures of commissions, expenses, and claims as a percentage of premiums. Note again the trend for 1982. The overall ratio is 106%

and ranges by company from a low of 97% to a high of 127%. With only two of the companies less than 100%, these are startling numbers. This is a casualty type underwriting loss ratio, and financial results would be improved by the inclusion of investment income. GAAP adjustment for deferred acquisition costs would also improve the appearance of the situation. However, the implications of an overall ratio of expenditures to premiums of 106% are serious.

Chart 16 shows expenditures (commissions, expenses, and claims) plus the increase in reserves (including deficiency reserves) as a percentage of premiums. Note particularly the ratios for the last four years.

	<u>Ratio</u>
1979	96%
1980	107%
1981	117%
1982	126%

For 1982, the ratios by company ranged from a low of 101% to a high of 148%. On a statutory basis, 1982 must have been a devastating year for ordinary reinsurance. It is not possible to get a picture of these ordinary results just by looking at a statutory statement which includes special arrangements, modified coinsurance profits, consolidation with other lines and direct business. However, from this analysis, it is easy to see why some reinsurers would hope that 1982 is one of the worst years for ordinary reinsurance experience.

"It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness...."

MR. DENIS W. LORING: Did you do any chi-squared or other tests on the 1982 claims figure to determine the probability that the variation of actual above predicted in Charts 7 and 8 was random?

MR. HOLLAND: No, but we noted that the 1982 claims deviation was approximately a 4% fluctuation in terms of in-force, compared with a 10% to 12% fluctuation in terms of premiums. The general impression is that part of it was fluctuation, but part of it is a result of changing premiums.

MR. MELVILLE J. YOUNG: I have been following our [General Reassurance's] claims and commission ratios and expenses over about a twelve year period, and I have noticed that our claim ratios to premium have stayed relatively flat following a similar pattern to that you have shown, but generally within a short range of variation. That is interesting. These premiums have been coming down per 1000, and that shows there is a self-adjustment in there. When we take out YRT in our observations, and just look at co-insurance, the item that has had a dramatic change in the last few years, as you indicated, is the price that we are paying (the commissions on co-insurance) for business, and that ratio for General Re ten or twelve years ago was approximately thirty or thirty-two cents per \$1.00 of premium. This takes into account the levelizing of commissions, so you do not have the heaping of the first year. Currently, such commissions are 47% to 49% of premium. That is the real problem in the profit crunch we are experiencing.

I noticed something in our 1982 results which you also noticed, but came away with perhaps a little different opinion as to what might have caused it, and that was that the premium line seemed to be too low in several of the graphs in 1982. You offered the interpretation, as did our corporate actuarial staff, that our claims in 1982 were too high. I have a different impression, and I do not mean this jokingly, that our premiums were too low. We have been in this select term market for some time, and what has begun happening in the last couple of years is that there have been many of what we used to call internal reversions, rewrites, and policy changes. In visits to some clients we have identified a problem in which the administrative staff of the client company is not administering these rewrites properly. When the company rewrites a policy they are treating it as a lapse and a new issue, and are booking it as a first year case, as opposed to a point in scale premium. Furthermore, if a new reinsurer is involved, the case goes to the new reinsurer. This was especially true in 1982. When, by audit, reinsurers find all of this premium that is owed to them, as we have begun to do, I think that on your graph there will not be quite as much disparity in the 1982 number.

MR. HOLLAND: Let me make just one more comment about the difference. The regression of claims to in-force, which was a fairly good fit, particularly on an industry basis, showed that 1982 was a good year. The regression line would have predicted a little higher than the industry experienced. Looking at the regression of claims to premiums, which is also very good, we found a very good fit on our own data for years, which is why I was interested in doing this kind of an analysis. This regression also shows claims were high in 1982. But the underlying variable that has really made it high has been the sharp turn down in premiums as opposed to necessarily a real worsening of mortality.

MR. YOUNG: I do not think that it is a bad claims situation. It is just an administrative problem, and it will be corrected.

MR. JEFFREY SONHEIM: Do you have any graphs of your claims and expenses to premiums plus investment income instead of just premiums?

MR. HOLLAND: No, that is a good point. I did not include that. This is more of a property/casualty type of approach. You are looking at more of an underwriting ratio with an investment ratio. Again, although we show, for instance 126% of these items such as expenditures plus increase in reserve premium, we have omitted investment income, which is a significant thing. Also, a number of companies are on a GAAP basis. This does not reflect a mix of first year and renewal adjustment, so it may be that where a company wrote a very substantial amount of new business, it might defer the acquisition cost and spread out the total commissions.

The one thing I would caution about in terms of adding in investment income is to be careful as to the source of the investment income. My impression is that a lot of the reserve increase is funded out of the surplus of the reinsurer as opposed to out of the earnings of the business. This is particularly true of deficiency reserves, and there have been times where we have seen a premium of \$1.00 and a deficiency reserve of \$20 or \$30 per 1000. There is no way that this \$30 per 1000 comes out of the earnings of the business; it comes out of the surplus of the company. Even on a 1958 CSO basis, if you are looking at age 35, where I believe $q(x)$ is around 2.51, you have companies charging less

than \$1.00. So if you take in a dollar, you set up a reserve of \$1.25 or some other amount. You are probably setting up this reserve out of your own surplus, and therefore if you credit investment income, at least all of your investment income, to this particular process, you may be crediting investment income on what is really your own surplus that you have allocated to this line of business. So you need to be very careful in doing an investment income analysis. Things are better if you GAAP your deferred acquisition cost, although if you have a 40% lapse ratio in your deferred acquisition cost it may not be quite as nice as otherwise. Things will also be better if you include investment income.

MR. ROBERT P. JOHNSON:

The Effects of TEFRA on Reinsurance Tax Planning

Under the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), reinsurance tax planning has entered uncharted territory. From the tax point of view, a critical step in developing a reinsurance program is to determine a company's likely tax phase for several years to come. This is essential if one is to provide reinsurance coverage at the lowest after-tax cost. Although TEFRA'S reinsurance sections are permanent, it is important to note that the new limitation on special deductions and the safety net provisions of TEFRA are scheduled to expire after taxable year 1983. Therefore, future tax phases applicable to the company are currently unknown.

The most critical feature of TEFRA with respect to reinsurance tax planning was the repeal of Section 820. There were, however, three other important provisions relating to the treatment of policyholder dividends, denial of the interest paid deduction for ceding companies under coinsurance agreements, and the treatment of related party reinsurance.

Policyholder Dividends

Conforming change for policyholder reimbursements

The modified coinsurance rules under prior law (Code sec. 820(c)(5)) provided that the dividends paid in respect of a reinsured policy were treated as paid by the reinsurer and not the reinsured (to the extent the reinsurer reimbursed the reinsured). This rule also applied in respect of an insurance or annuity policy reinsured under a conventional coinsurance contract as well as a modified coinsurance contract.

As a conforming change with the repeal of the modified coinsurance provisions, the Act prescribes new rules for the tax treatment of reimbursements of policyholder dividends under a reinsurance arrangement.¹ In general, the policyholder dividends paid in connection with reinsured policies are treated as paid by the reinsured company rather than the reinsurer. Thus, a reinsured company will not be permitted to avoid the limitation on deductible policyholder dividends applicable to it by shifting the policyholder dividends deduction to a reinsurer which is eligible for larger deductions.

¹ The amendment providing for the inclusion of policyholder dividend reimbursements in income for a ceding company (Code sec. 809(c)(1)(F)) applies generally to all reinsured policies. However, the accounting method provisions (Code sec. 811(c)), relating to the corresponding deductions for the reinsurer, refers [sic] only to conventional coinsurance contracts. It is anticipated that this latter provision will be considered in connection with technical correction of the Act, i.e. consideration of an amendment to conform the scope of the deduction provision for a reinsurer to the income inclusion rule for a ceding company. (Blue Book, p. 341)

Based upon this change in the treatment of dividends under reinsurance treaties, both reinsurers and ceding companies should review current reinsurance agreements for viability. Phase I and Phase II positive ceding companies can now reinsure with dividend reimbursements to Phase II negative reinsurers without adverse implications for the reinsurance company.

Denial of Interest Deduction

It was clear to many observers that revocation of Section 820 might result in a massive reformation of contracts to a coinsurance mode. Coinsurance could accomplish the same basic risk transfers as the modified coinsurance agreement but would continue to provide a tax benefit to a Phase I company. This is of limited impact while the alternative limit on deductions is available but will be important if the industry is again taxed in the future under the 1959 Act. The massive reinsurance agreements accomplished in the past few years under modified coinsurance cannot be replicated under coinsurance if funds are required to be transferred to the reinsurer because transfer of these amounts of assets to an unrelated reinsurer is impractical. Therefore, coinsurance utilizing the "funds withheld" approach or with a note taken by the reinsurer appear to be the only viable alternatives for reinsurance contracts involving large portfolios of business.

Denial of interest deduction on indebtedness in connection with reinsurance agreements

To discourage the use of reinsurance agreements for tax avoidance purposes similar to those involved with modified coinsurance, the Act denies interest deductions otherwise taken into account in allocating investment income to policyholders (Code sec. 805) if the interest is incurred after December 31, 1981, by a ceding company, or its affiliates, in connection with a reinsurance contract. This provision will not apply to interest paid on account of delay in making periodic settlements of income and expense items under the terms of the contract.

A special transition rule is also provided to except interest paid in connection with a corporate restructuring transaction from the limitation imposed on

interest incurred on debt issued for a coinsurance arrangement entered into early in 1982. The exception applies only if substantial cash principal payments were made prior to July 1, 1982, and the note is fully paid in cash before January 1, 1983.¹

Congress intended that no inference is to be drawn from the inclusion of the limited specific rules for debt-financed reinsurance arrangements but not for other arrangements. In appropriate circumstances, the Internal Revenue Service may challenge other reinsurance contracts on other grounds, e.g. the lack of economic substance of a transaction, the lack of a bona fide business purpose, or that the agreement is not an insurance agreement.

¹ Under the special transition rule, an amount not less than 20 percent of the amounts reinsured must have been paid in cash on the effective date of the contract and at least 40 percent of the note principal must have been paid in cash by the ceding company as of July 1, 1982. (Blue Book, p. 344)

An agreement must entail a significant transfer of risk to be considered an insurance agreement. What constitutes a significant transfer of risk is an area I will address in a few minutes.

Denial of the interest deduction has Phase I impact only. Interest is still deductible in calculating the gain from operations. In the past, Phase I and Phase II positive ceding companies preferred Modco 820 or coinsurance to other reinsurance forms because these modes reduced taxable investment income. Under the new law, coinsurance with funds withheld is ineffective in reducing taxable investment income. In fact, if the reserves transferred are life reserves, the taxable income of a Phase I or a Phase II positive ceding company may be increased due to the loss of the required interest deduction.

Even though the ceding company does not obtain a Phase I deduction from interest paid related to reinsurance, the assuming reinsurer will have an increase in Phase I taxable investment income. The amendment to Section 805(e) refers to interest paid by a ceding company or its affiliates in connection with the reinsurance agreement. This clearly implies that two forms of interest paid to the reinsurer would not be deductible: interest credited on funds withheld, which is considered an indebtedness for tax purposes, and interest paid on an actual instrument of indebtedness to the reinsurer. The reference, "to any person", may indicate that borrowing from a third party to finance a reinsurance agreement would also result in the nondeductibility of the interest.

This new provision parallels, in certain respects, Internal Revenue Code Sections 264 and 265 which provide for non-deductibility of amounts paid on indebtedness incurred or continued to purchase or carry a life insurance contract and to the non-deductibility of interest on indebtedness incurred or continued to purchase or carry tax exempt obligations. The question of whether borrowing is related to the reinsurance is an interesting problem. Will the existence of coinsurance cause non-deductibility of interest related to bank borrowing or issuance of commercial paper? Similar questions under Sections

264 and 265 have required numerous regulations and court decisions to settle. An indebtedness from the reinsurer to the ceding company may arise when modified coinsurance is utilized to provide surplus relief. To avoid a cash transfer, funds may be withheld from the ceding company by the reinsurer. Since the TEFRA amendment refers only to interest paid by the ceding company (or affiliates of the ceding company) on indebtedness incurred in connection with a reinsurance agreement, interest paid by a reinsurer to a ceding company or to any person on indebtedness in connection with a reinsurance, should be deductible under Section 805(e) as it has been in the past.

Coinsurance with funds withheld has been used for many years by casualty companies as a preferred alternative to modified coinsurance. In fact, modified coinsurance is virtually unknown to casualty companies. Coinsurance with funds withheld is useful in reinsuring to non-admitted foreign and alien reinsurers. The TEFRA provisions have not in any way impaired a company's ability to utilize this mechanism. For all purposes other than Phase I interest deduction, coinsurance with funds withheld is an effective method of reinsurance. In calculating the life company ratio, coinsurance with funds withheld will move reserves from one company to another. Coinsurance with funds withheld and coinsurance with a note remain viable reinsurance alternatives when transfer of funds is impractical.

Related Party Insurance

Perhaps the most perplexing provision of this legislation is the new I.R.C. Section 818(g) designed to give the Service broad powers to allocate or recharacterize items arising from reinsurance agreements among related persons.

For 60 years the Service has had broad power to allocate items under Section 482 and its predecessor sections. One could question whether the Service needed additional powers and how Section 818(g) meets that need.

Undoubtedly the Administration's effort to gain additional authority to examine and reform the tax effects of reinsurance grew out of frustration over the revenue loss from Section 820. The Administration's 1983 budget proposal included not only repeal of Section 820 "to prevent life insurance companies from converting investment income into underwriting income" but also restrictions on the use of other forms of coinsurance. Treasury wanted broad authority to reallocate items arising from a reinsurance agreement regardless of the relationship (or absence thereof) among the parties to the agreement. The Senate was unwilling to grant such broad powers. Section 818(g) is the compromise.

In March 1982, before introduction of any tax bill in Congress, Treasury issued proposed regulations on reinsurance which were more legislative than interpretive. The regulations set guidelines for a valid Section 820 election and also required an allocation of experience refunds between investment and underwriting income. Most of the comments filed on the proposed regulations criticized them for exceeding the existing statute. Now Section 818(g) may belatedly provide Treasury with authority for such allocations, but only for related party transactions.

Section 482 provides that:

"In the case of two or more organizations, trades or businesses, (whether or not incorporated, whether or not organized in the United States, and whether

or not affiliated) owned or controlled directly or indirectly by the same interests, the Secretary may distribute, apportion, or allocate gross income, deductions, credits, or allowances between or among such organizations, trades, or businesses, if he determines that such distribution, apportionment, or allocation is necessary in order to prevent evasion of taxes or clearly to reflect the income of any such organizations, trades, or businesses."

Section 818(g) provides that:

"In the case of 2 or more related persons (within the meaning of Section 1239(b)) who are parties to a reinsurance agreement, the Secretary may (1) allocate between or among such persons income (whether investment income, premium, or otherwise), deductions, assets, reserves, credits, and other items related to such agreement, or (2) recharacterize any such items, if he determines that such allocation or recharacterization is necessary to reflect the proper source and character of the taxable income (or any item described in paragraph (1) relating to such taxable income) of each such person."

The Blue Book states that:

"The provision granting special allocation authority to the Internal Revenue Service with respect to reinsurance between related parties applies to contracts entered into after the date of enactment of the Act." (p. 345)

Given that Section 482 is very broad, taxpayers are fortunate that there are guidelines to limit its application. The presence of a nontax business purpose is helpful but not determinative; combined reduction of tax is troublesome but not fatal. The primary standard applied in Section 482 is that of an uncontrolled taxpayer dealing at arm's length with another uncontrolled taxpayer. So long as one can demonstrate the arm's length basis of a transaction's terms, defense against a Section 482 challenge is usually successful. Even though the statute itself refers to "evasion of taxes" as a target of Section 482, courts by and large have relied on the arm's length standard in deciding litigation.

The alarming feature of Section 818(g) is the absence of any standard for its application at the present time. Many business transactions reduce net tax payable. Will related party reinsurance transactions be tested on this bottom line basis? There is no justification for a higher standard to be applied to related party arrangements than to those between unrelated parties. The danger is that the Service will overlook Section 818(g)'s legislative history and will eventually apply the section indiscriminately to related party reinsurance. Proper tax policy calls for establishment of a rational standard. Until the situation is clarified companies contemplating related party reinsurance agreements should proceed with caution.

Tax Planning Actions

Companies that had relied upon reinsurance agreements that were affected by the permanent provisions of TEFRA must evaluate alternative courses of action. I will discuss the problems that arise for each of the four reinsurance provisions.

For ceding companies that relied upon a Modco 820 agreement or a coinsurance with funds withheld agreement to reduce their taxable investment income, the only alternative available is to convert their existing agreement into coinsurance with transfer of assets. Under this new form of reinsurance agreement the

investment income will emerge on the statutory return of the assuming company rather than the ceding company since the assuming company will now hold the assets.

With respect to related party reinsurance agreements, those entered into before the enactment of TEFRA should not be amended in any way because new agreements which are amended will be subject to the application of Section 818(g). Some companies had formed a number of narrowly licensed subsidiaries that were in a favorable tax situation for specialty classes of business. The broadly licensed parent company would reinsure the specialty classes of business with the appropriate subsidiary and thereby enjoy favorable taxation with respect to that class of business. Under Section 818(g) this reinsurance may be subject to recharacterization. Therefore, it may be prudent to secure additional state licenses for these subsidiaries and write the specialty classes of business directly in the appropriate subsidiary.

Most companies have discovered that the "Stopgap Safety Net" under TEFRA has taken enough of the sting out of the limited deductibility of dividends to enable them to market their participating products profitably. A few, however, may find that their products require full deductibility of dividends if they are to be profitable on an after-tax basis. Companies in this position have two options available. They can reduce the ratio of their life insurance reserves to total insurance reserves to an amount less than 50% and thereby become subject to casualty insurance taxation under Section 821 or 831. Ceding and/or assuming blocks of business with the appropriate characteristics under coinsurance agreements could achieve this objective. Alternatively, the company could reduce its taxable investment income to the point where it becomes a Phase II positive taxpayer. There are various techniques which will achieve this objective. One which involves the use of reinsurance is the coinsurance with transfer of assets of a large portion of the company's book of business.

What is Insurance?

On several occasions I have quoted passages from the "General Explanation of the Revenue Provisions of the Tax Equity and Fiscal Responsibility Act of 1982," more commonly known as the "Blue Book", which was prepared by the Staff of the Joint Committee of Taxation and published on December 31, 1982. Although the Blue Book does not constitute part of the legislative history of TEFRA, it does give us a valuable insight into the prevailing attitudes of Congress and its committee staffs which led to the final legislative wording. In this regard it is especially important that we heed the language that appears on page 344 of the Blue Book at the end of the section entitled "Denial of interest deduction on indebtedness incurred in connection with reinsurance agreements." The "risk shifting" and "risk distribution" have always been especially important in captive insurance and reinsurance transactions. The Blue Book strongly suggests that the question of "whether the requisite elements of risk shifting and risk distribution are present to constitute insurance" may have even wider implications in the future.

Unfortunately, the Internal Revenue Service has announced that it will no longer issue advance rulings as to whether a transaction involves "the requisite risk shifting and risk distribution necessary to constitute insurance." The Service has also stated that there is "a grey area" between what clearly is insurance and what clearly is not insurance, and that this determination must be based on the facts and circumstances. Presumably the determination will be made at the District Director level.

Summary

1982 brought traumatic changes to the reinsurance market, as well as the insurance industry, in the area of tax planning. The elimination of the Section 820 election will affect the after-tax cost of many reinsurance programs instituted in the early sixties as well as those initiated in the late seventies; excess of retention programs as well as portfolio quota share programs are affected by the revocation. Additionally, the basic calculation of taxable income has been changed at the same time as many of the specific reinsurance rules. An analysis of current reinsurance programs and implementation, if necessary, of new plans will be an activity that continues well beyond 1983.

In summary, a careful review of the new reinsurance provisions in conjunction with the two year "temporary" provisions and with the product specific provisions may indicate some unexpected opportunities along with the expected problems.

MR. NOVIK: Mel Young is going to make a few comments about surplus relief. Surplus relief has become a hot topic in the past year or two, and scarcely a day goes by in which we do not receive a number of requests from companies, both in the life and the casualty industries, requesting either to expend surplus or to obtain surplus. It has become quite a commodities market. Mel has put together an eloquent defense for the market.

MR. YOUNG: I have prepared a paper which I hope to give to several similar other groups. What prompted me to write this paper was that we began to be confronted by various regulatory agencies in the area of financial reinsurance. For some reason people think of financial reinsurance automatically in a negative way, and I hope that the paper begins to demonstrate that there are very valid uses for financial reinsurance, and it deserves a place in our world.

Definition: Financial reinsurance is any reinsurance wherein risk passage is not necessarily the primary motivating factor in the consummation of the arrangement. I said "primary", because as Bob Johnson pointed out, it is essential that the arrangements be properly constructed so that there is sufficient risk passage, so that the arrangements pass muster if they are questioned.

Surplus Relief Is NOT A Dirty Word

We often are contacted by successful life insurance companies who are facing a disturbing problem. Having made the investment of time and money necessary to develop a high quality staff, their investment has paid off. Their labors have culminated in the introduction of an innovative new product line at a meeting of their agents, a group of talented people in whom a considerable amount of time and money has also been invested. The happy result is a strong increase in sales. Unfortunately, this silver lining has a cloud. Acquisition costs and reserves create an unacceptable strain on the company's financial resources.

The conventional solutions to this problem include shutting off the new business valve, thus losing the potential profits and risking the loss of some of the hard-to-come-by trained and talented staff or heavily reinsuring the business in a way which shifts the financial strain to the reinsurer (along with much of the profit). This second approach does allow the marketing effort to continue uninterrupted.

There is at least one unconventional alternative - a surplus relief reinsurance treaty designed to bridge the financial gap until the company can go it alone. The cost is typically less than it is for conventional reinsurance and the agreements are structured with a flexible recapture provision which offers a further opportunity to reduce the ultimate cost.

Policyholders benefit by the economies involved, as do the company and its agents. It should be obvious that this service provided by reinsurers, if performed in a responsible manner, should be supported by our industry and those who regulate it. Unfortunately, "it ain't necessarily so."

Up until now, surplus relief agreements have generally been viewed as a means to avoid regulations and have therefore not been encouraged. I suggest that this perspective is too narrow and that it should be reexamined. I propose that each situation be viewed on its own merits.

To illustrate, I will describe several situations that I have been involved with. The point I will be trying to make is that in each case the surplus relief treaty helped the writing company provide a competitive product to its policyholders, helped the company keep a talented management and sales team in place, and in some situations, working closely with regulators, helped keep a company financially viable and stable after an unfortunate set of circumstances threatened its stability.

Case Study #1

An extremely well-managed, medium-sized stock life insurance company decided to diversify its product line. It realized that profit margins were narrowing in the traditional lines it was offering, so it began developing a Single Premium Immediate Annuity (SPIA) portfolio. Since many of the SPIA sales involve substandard risks, a special training program was necessary for the company's doctors and underwriters. In addition to the regular product development activities a special investment strategy had to be devised to handle large lump sum annuity considerations. Furthermore, special computer systems had to be developed to handle benefit payments and administration.

After months of preparation the effort began and the company's professionalism paid off. Sales were going well. Then, interest rates soared, and so did the excess interest reserves created by the difference between the interest rates credited to the insured and the statutory valuation rate. The resulting surplus strain equaled approximately 40% of premium income and conventional wisdom called for closing down the operation until interest rates came down.

But successful business men do not blindly follow the conventional paths. The company sought and found several reinsurers who were willing to support the operation with special surplus relief agreements. For the next couple of years the company continued selling its product, developing a reputation for being a leader in this line of business and a reliable source for buyers to turn to for their SPIA needs. Now that interest rates are down and the strain is almost gone, the need for this special kind of reinsurance no longer exists. With the strain gone more companies are now looking to this market, but they are faced with the formidable task of competing against a company with an experienced staff and a reputation for performance. The non-conventional approach proved to be a good one.

Case Study #2

A small but growing company was interested in acquiring a somewhat larger company. In addition to the value of the inforce business the purchase would allow them to begin marketing in a number of states in which they were not then licensed. The owner of the company being sold was also anxious to see the sale completed. It was a large corporation which had decided to withdraw from the primary insurance business. Thus, there was a willing buyer and a willing seller who had agreed on a fair price, but they were confronted with a problem. The buyer did not have the surplus to carry it off.

A surplus relief reinsurance treaty came to the rescue. The necessary surplus was provided by reinsuring a block of the seller's business. The buyer negotiated the terms and the treaty took effect just prior to the merger. The buyer used the surplus thus created to pay the debt it incurred in the purchase agreement. The selling company had sizable tax loss carry forwards which would have expired. The gain generated by the reinsurance of the block was offset by these loss carry forwards and therefore the income generated was essentially tax free.

What had been apparently undoable, was done.

Case Study #3

A company active primarily in the credit insurance business was faced with a terrible combination of events. The recession caused an increase in its disability losses along with a reduction in its profitable life sales. Not only did this result in a dismal P & L Statement, it created the potential of the company deliving with rather disastrous tax consequences coming as the coup de grace.

Two reinsurance agreements were constructed. The first covered a portion of the company's credit disability business while the second allowed the company to assume a block of life insurance business. Consequently, the company is for the time being not confronted with the potential that it will cease to be treated as a life company for tax purposes. The reinsurance treaties had bought it time to seek more permanent solutions to its problems.

And, I can go on and on. I could tell you about what I feel is one of the best little life companies in the country which has become an industry leader in the deferred annuity market, due in no small part to the help of a surplus relief agreement; or about a truly fine company which ran into trouble because it misjudged the deficiency reserve requirements of its new best-selling product. Surplus relief gave it time to re-file its policy and resolve the problem through an encouraged replacement program. I could tell you about a market leader, experiencing an outstanding growth in sales, which was being bought by a large industrial conglomerate. Because of its sales success, the company was faced with the potential of closing down shop for the six months it would take for the merger to go through and the new parent to infuse capital. With surplus relief it did not miss a beat. And I could tell you more.

What is the common thread? Each of these companies was ably managed. Each had earned its shot at success. None would have received its due without non-conventional reinsurance support.

However, I do not want to leave you with the thought that surplus relief agreements are always the best answer. There are companies which have found themselves in a financial bind because of an inadequate management team. In these situations a surplus relief arrangement might tend to keep poor management in place, further exacerbating the problem. Reinsurers active in providing surplus assistance would be doing a disservice to the company's policyholders as well as to their own stockholders if they supported a management team deserving to be retired. This calls for a process of careful review including analysis of annual statements, 10-K reports, audited financial statements, insurance department examination reports, as well as personal knowledge of the management team. When the situation warrants it, the reinsurer should encourage close contact with regulatory authorities whose support can go a long way towards helping the company resolve its difficulties.

A review of a company's tax return could also be important. It is not inconceivable that a company could, as a result of the reinsurance treaty, incur a tax liability greater than the surplus generated thereby. This situation can generally be avoided by carefully analyzing the company's projected tax return on a before and after basis.

In addition to taxes, consideration of the effect the reinsurance will have on several other aspects of the company's financial character may prove worthwhile. These include GAAP and statutory earnings, cash flow, GAAP and statutory assets, Best's rating, and premium income. If, for example, premium income growth and cash flow are considered highly important parameters to a company's management, a surplus relief treaty that impacts negatively on these parameters does not adequately do the job. Identification of the problem to be solved, as well as the financial goals of the corporation are thus vital elements to a successful surplus relief treaty. Of course this takes time, thus anticipation of a potential problem, providing the time for analysis, will obviously help avoid problems.

By working through several potential sets of scenarios and thinking through the consequences, you can develop plans of action which you can use as a basis for the solution to the problem when your speculations turn into reality. But your thought process should include one crucial element frequently omitted from the think tank sessions: Execution. Since the creative thinkers and planners are usually not the people charged with administering their strokes of genius, they usually spend very little time worrying about how their creations will be handled in the months and years ahead. Therefore, to be doubly sure you have a workable solution, it is imperative that the people with the ultimate responsibility to handle the transaction after the negotiations are long forgotten have an opportunity to take part so that reporting and administrative procedures can be ironed out. When these people are satisfied you can be too.

MR. IRWIN T. VANDERHOOF: In connection with surplus relief, I think the situation is more favorable than Mel described; there is the evidence in the examiner's handbooks. The examiner's handbooks specifically discuss surplus relief treaties, and say that such treaties shall be considered on purely technical and legal grounds. This implies to me that a primary requirement for transfer of risk is not necessarily, according to the examiner's handbook, the essence of these treaties. I concur with the various favorable legitimate usages that Mel describes. However, there are possible situations with respect to surplus relief treaties that trouble me a little bit, and it might be to the point to bring them out. One is that surplus relief treaties, at least in theory, do not necessarily have to provide a block of business which

is overall profitable to the writing company. It is possible to have a surplus relief treaty in which the company obtains surplus relief in the first year, but in fact pays back that surplus relief, and pays back so much compared to the premium it is receiving that in fact the block of business is a total loss to the writing company. That is the kind of situation that would trouble me.

Second, I could be troubled by the fact that a reinsurer entering into a surplus relief treaty with a client company gives to the general public and regulators the impression or the belief that the client company is in relatively good financial condition. But suppose the client company had misled the reinsurer as to the actual facts about the block of business. Suppose it were flat out fraud. Should the reinsurer be in a position of having to tolerate fraud, or should the reinsurer be able to disallow the treaty because it was fraudulent intent on the part of the client company, and therefore end up with the client company not in the financial position that its statement indicated?

Third, I agree with the legitimacy of the kinds of situations Mel described, but should it not be revealed. If everything is okay, and it is so clean and so honest and so nice, why shouldn't it be revealed in the company's annual report that this transaction had this impact on its surplus or its earnings.

MR. NOVIK: You started out by talking about transfer of risk. Did you say that you are not sure that transfer of risk is required?

MR. VANDERHOOF: The language in the examiner's handbook is that surplus relief transactions are to be considered on legal and technical grounds only. My interpretation of that is that it does not have to be primarily a transfer of risk.

MR. NOVIK: I agree that the reinsurance agreement does not have to be primarily motivated by risk. You commented on a required payback. Surplus cannot be effectively acquired through a treaty which contractually requires a payback to the reinsurer. If the treaty lacks risk transfer and provides complete assurance of payback, it would be inappropriate to book any increase in surplus as a result of the transaction.

MR. VANDERHOOF: Yes, but I was talking about the purpose of the treaty being primarily a transfer of risk. The New York Department has a long standing rule against guaranteed profit treaties, which would be where there was a 100% guarantee it would be repaid. However, the chance that it will be repaid under surplus relief treaties might not be 100% by the nature of the contract; it might only be 99.5% by the nature and character of the business being reinsured, and the examiner's handbook seems to imply that a very high probability of repayment is acceptable. My concern relates to a hypothetical situation in which the probable payback is 150% of the amount of surplus. It seems to be the kind of transaction that is not specifically forbidden anywhere, but an actuary in good conscience should not be able to enter into it, I think. I am not sure. I am just asking for comments.

MR. YOUNG: Irwin, let me try to address the several questions you ask. Some of the points I made in the paper perhaps need to be added to. It is very important for those of you who are involved in the financial reinsurance area to be analyzing what you are doing very carefully.

There are no mirrors involved here. The product itself has to be profitable, and you have to analyze the product being used to generate the surplus relief. That product has to be profitable. The company has in the long term to be making a profit. The product has to be a sound one, otherwise we do not want to be involved with it, and we usually look to make sure that even while the surplus relief process is going on the company, hopefully, is still getting the lion's share of the profits. Product analysis is crucial.

Secondly, as often as possible we seek the involvement of regulators, particularly if we are dealing with a shaky entity, which we normally do not want to deal with. Generally, the only time we will deal with a shaky entity is if we are asked to by regulators. If the company comes to us and says, we are just about to go under and if their insurance department can be brought in, and if they want us to work with them and the company to help the situation, and if there seems to be a capable management team, and the problem is something that can be corrected, only then will we participate. The character of the management is very important and we try to know who we are dealing with, so that we are not dealing with shady people who are going to pull a fast one on us. Our whole business is one of trust. There are mistakes made; we make mistakes in judgment, and we shall make mistakes in analyzing products. We try to take that aspect of it very seriously, and again I would urge all of you who are involved in this to do the same.

Lastly, about the annual report, I would assume that if the company is a stock company and it has an audited financial statement, which is something we normally review when we do one of these, this transaction would be in that report.

MR. VANDERHOOF: I find those answers basically satisfactory, but I just thought that laying those particular kinds of problems on the table would be appropriate. I do agree with your general proposition about the usefulness of surplus relief, but its arrangements are becoming more and more commonplace, and I think it behooves us all to put these things on the table, so that we are careful in doing what we are doing because it is very easy to burn our company by doing something improperly.

MR. EDWARD B. MARTIN: I have a question that is not particularly related to any of the topics talked about today. With the great increase in bordereau reporting, one of the more frustrating problems we have been faced with is trying to decide how to GAAP adjust that business. Five or six years ago when we first had enough bordereau business on the books that it was significant, we developed a procedure in which we looked at the expected equivalent level allowance, and basically assumed that the net of the premium in that equivalent level allowance was there to provide for the claims and the expenses on the business. Obviously that is totally insensitive to lapse experience. Five years ago that might not have been a great problem for a couple of reasons. We did not really have the lapse problems of today, and the percent of business, while being significant, was not as extremely so as it is today. We are trying to find methods of doing a better job of GAAP adjusting bordereau business. That often leads to a desire for information that we do not have regular access to. I would be interested in how some of the other stock reinsurers might be approaching that problem.

MR. NOVIK: Well, both Munich and North American Re have found a very handy solution. We do not file U.S. GAAP. All you have to do is become wholly acquired by a foreign parent, and you will not have to consider this problem.

MR. YOUNG: As you know, I am not in the corporate side. What we generally do on arrangements that are traditional reinsurance as opposed to non-conventional, the ones I talked about earlier, is to use a worksheet approach. We try to model the block of business the best we can. Very often we get very late and sometimes insufficient information. It is a huge problem, and if the reinsurance section could have a workshop atmosphere in Hollywood later this year, this would be a useful topic for people active in CAAP to discuss during that session. It would be very interesting since we all share a common problem in insufficient information to properly do the job.

MR. HOLLAND: We have problems just getting sufficient information to do a statutory statement.

MS. MONICA HAINER: I would like to add to that. I need U.K. and Canadian reserves also. Can we add those to the list?

MR. YOUNG: I think you are on the program committee, so you can help me put that together.

MS. MICHAL I. BAUER: On the subject of keeping things out in the open and bringing financial reinsurance out of the dirty word category, have you found it to be a good idea, or is it even required in some states, to have the regulators pass on the treaties before they are instituted?

MR. NOVIK: As Mel said, clearly where a company is in a shaky position you would more than want the approval of the regulators; you would want their wholehearted endorsement before you would even consider getting involved with the company. Our property/casualty reinsurer put together a loss portfolio for a company last year that had a rather unexpected increase in reserve and was writing at a premium to surplus ratio of 6 to 1, a very uncomfortable level. The company made a commitment to the insurance department to seek out surplus relief to bring it down to 3 to 1. In this case it was appropriate to submit the reinsurance treaty to the insurance department for prior approval. In other circumstances, where a company is developing a strategy that involves substantial reinsurance and would like to be assured of the ongoing impact, it might also be advisable to review the treaty with the insurance department. It varies from situation to situation, and certainly would depend on how substantial the transaction is relative to the company. If a company is gaining or losing a very substantial portion of its assets, that is something you might want to review. If it is taking on a massive amount of business, or losing a massive amount of business, it is something you might want to review.

MR. YOUNG: There are a number of states that under certain circumstances require pre-filing of reinsurance treaties if the treaty represents a large enough percentage of a company's overall block or a particular block of business. For example, Massachusetts and New York are two states that require pre-approval, and there are a number of other states that require the treaty to be filed. Since the department will eventually become aware of the agreement, we usually urge our clients, even when not required, to clear the agreement with their insurance departments to make sure they do not have a problem later on.

MR. HOLLAND: There are some states where there is a requirement that you cannot retrocede 100% of a block of business without permission. The ceding company must obtain permission. In Massachusetts you cannot reinsure more than you retain. Again it is a question of relative importance as Jay mentioned.

We would encourage not only involvement of the state department, especially if it is a substantial treaty, but also that the management of the company passes it by its Board of Directors and makes sure the owners of the company are aware of the financial obligations of the treaty.

MR. YOUNG: That last is an interesting point. In one of the examples I gave in the talk there was a company that was in the process of being purchased, and to make sure you do not get sued in such situations you want to make sure that the reinsurance arrangement is disclosed to the new buyer.

MR. NOVIK: Many companies will look for their surplus relief perennially towards year-end. What happens to these companies if the market dries up?

MR. YOUNG: I think that is a problem. Early in the year we begin talking to those companies that traditionally ask us for surplus. We urge them to come to us early in the year. Unfortunately, perhaps, they have been spoiled because they know that we have been a reliable source of help over the last several years, and as much as we urge them, very often they do not come to us until towards the end of the year. There are times when they come late in the year and we just cannot help them. It is not a matter of not having surplus, sometimes it is just pure workload. That is an unfortunate circumstance. If you put the company on notice, which we do, you have done your best.

MR. NOVIK: Certainly you are acting in a professional manner. Many companies are still coming looking for substantial amounts of surplus late in the year. We have created the illusion that we can always provide it. What is going to happen if we cannot?

MR. YOUNG: They usually find it somewhere. There are some companies whose activities have been questioned recently, and those companies had some difficulty last year finding the capacity. We have tried to stay away from companies whose practices are questionable.

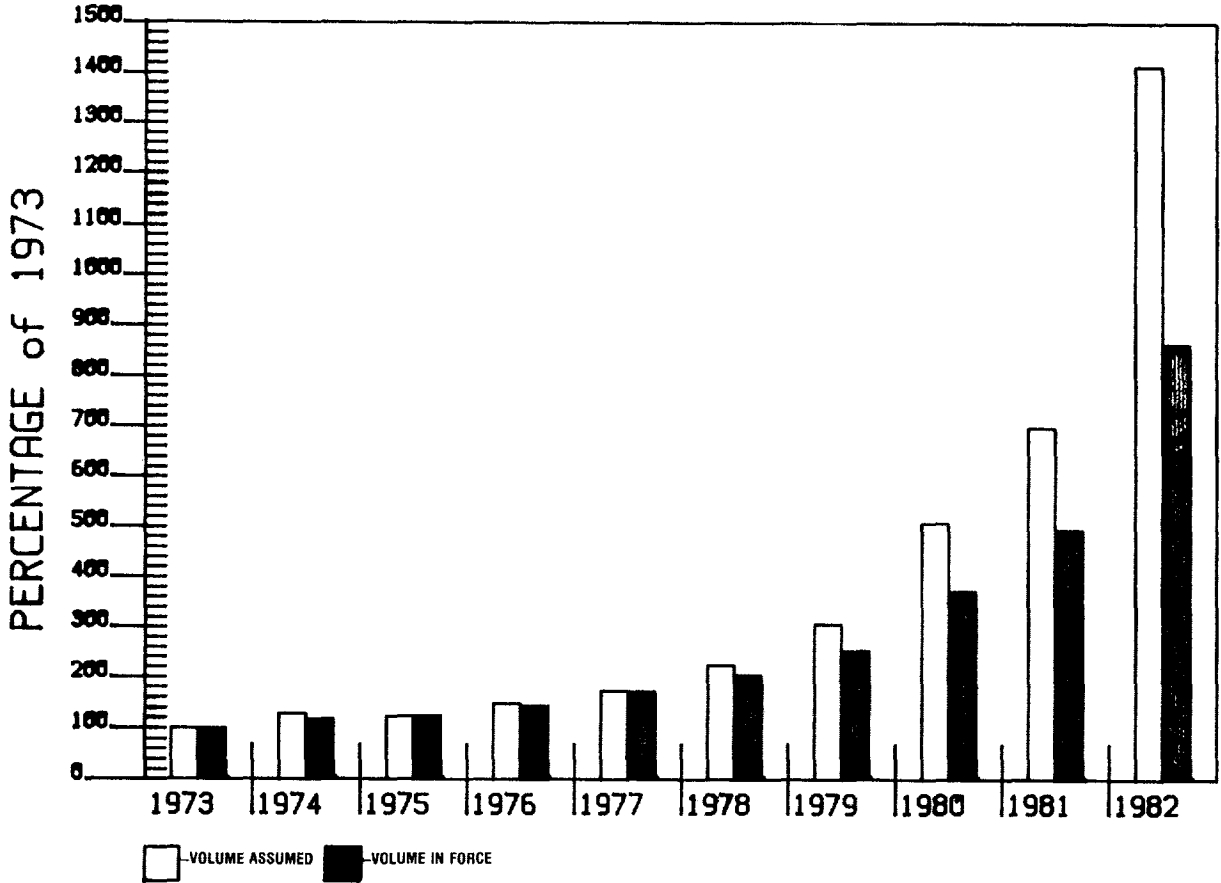
Those companies had quite a bit of difficulty in finding surplus last year. All or most found the surplus, and they ended up paying a very high price. Even if a company is a well-managed company, there is going to be an extra price to pay if they come Christmas week and ask for surplus. We urge our clients, to come to us early in the year to begin working on the problem. In addition to making sure that they get the surplus, also make sure that the problem is properly solved, and that the arrangement is one that can be administered because so many times we get called in afterwards, not for anything that General Re has done, but for some other reinsurer perhaps, to try to help a company figure out how to administer a treaty that they did last year.

MR. NOVIK: Primary pricing is pretty tight now too. Can companies usually afford on a realistic basis to pay the surplus charges and make a profit on their underlying business?

MR. YOUNG: That is a problem; that dictates the price of the product. When, for example, the Single Premium Immediate Annuity market was creating 60% surplus strain, if a company was paying X percent of that, that dictated the margin that they had to have on their product as far as interest rates, and so there was a much bigger margin at that point in time, in that marketplace, than there is today.

Chart 1

REINSURANCE GROWTH - 1973 to 1982



PREMIUMS - 1973 to 1982

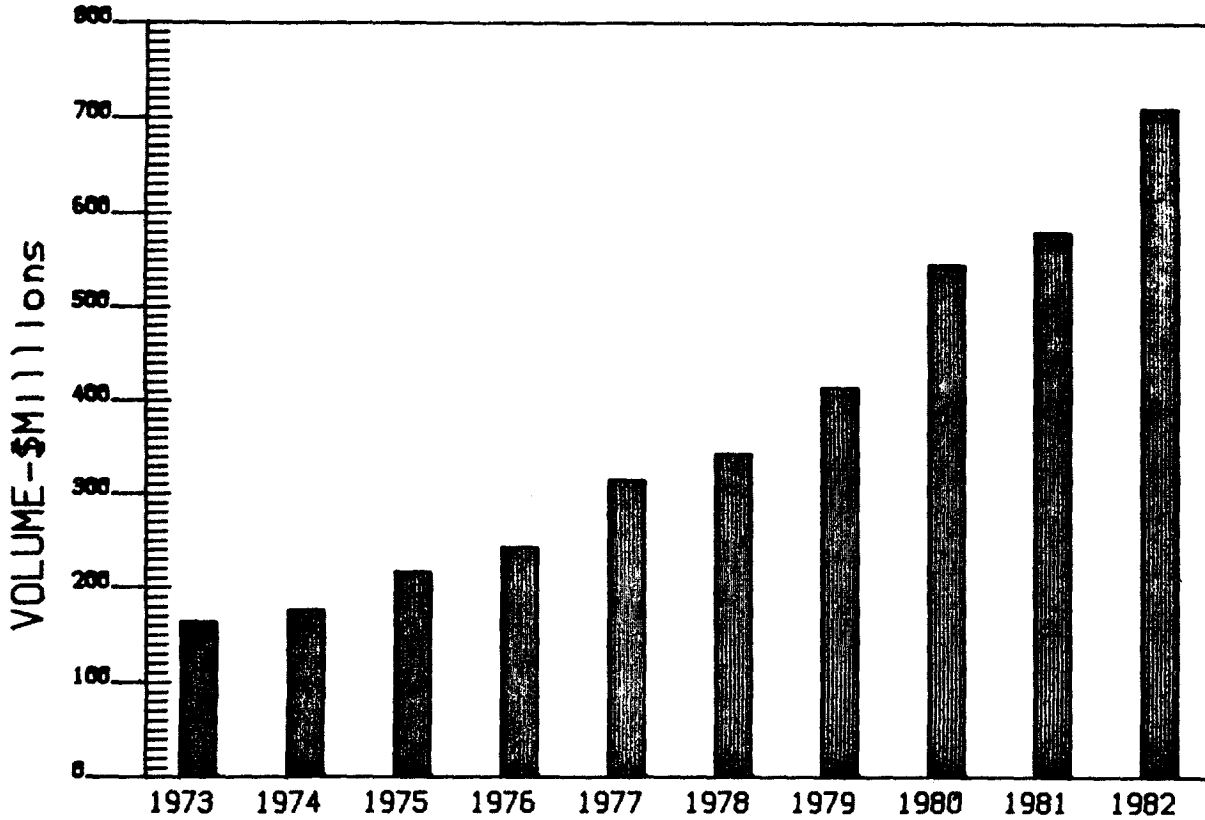


Chart 2

CLAIMS - 1973 to 1982

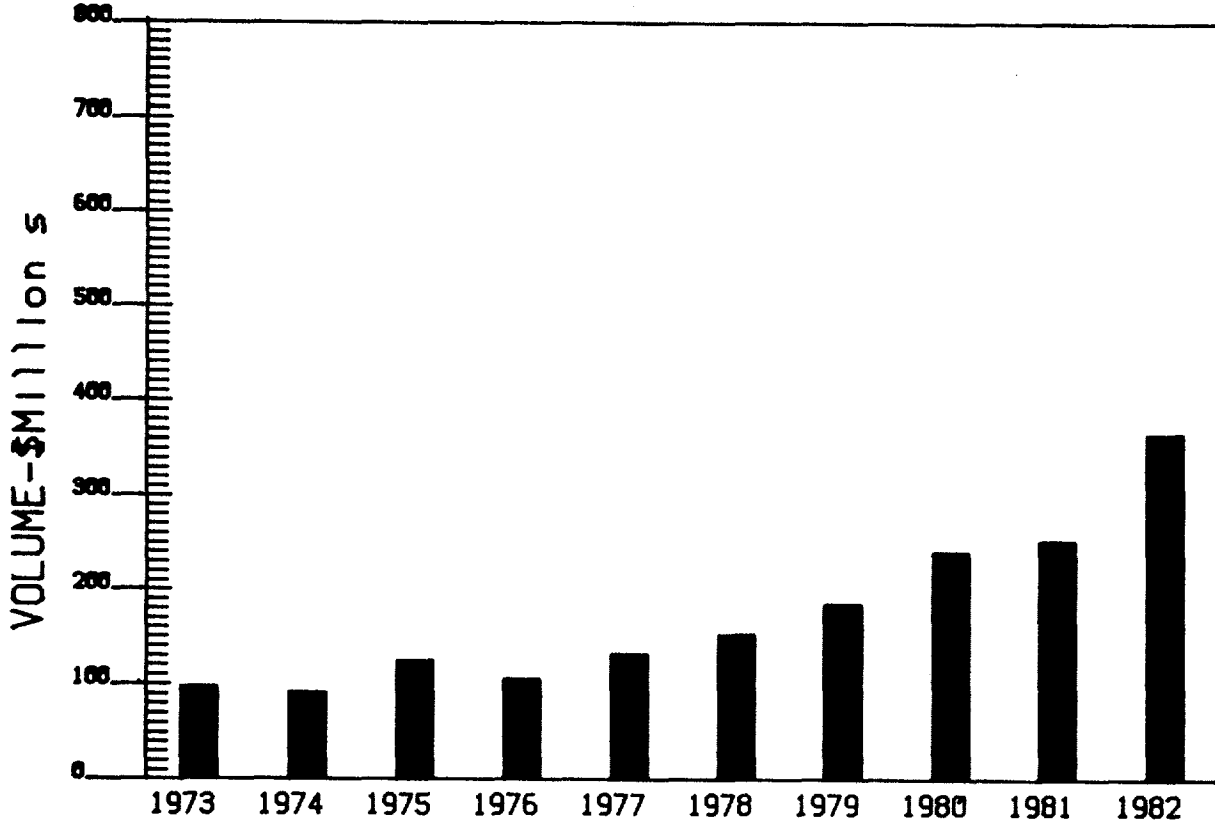
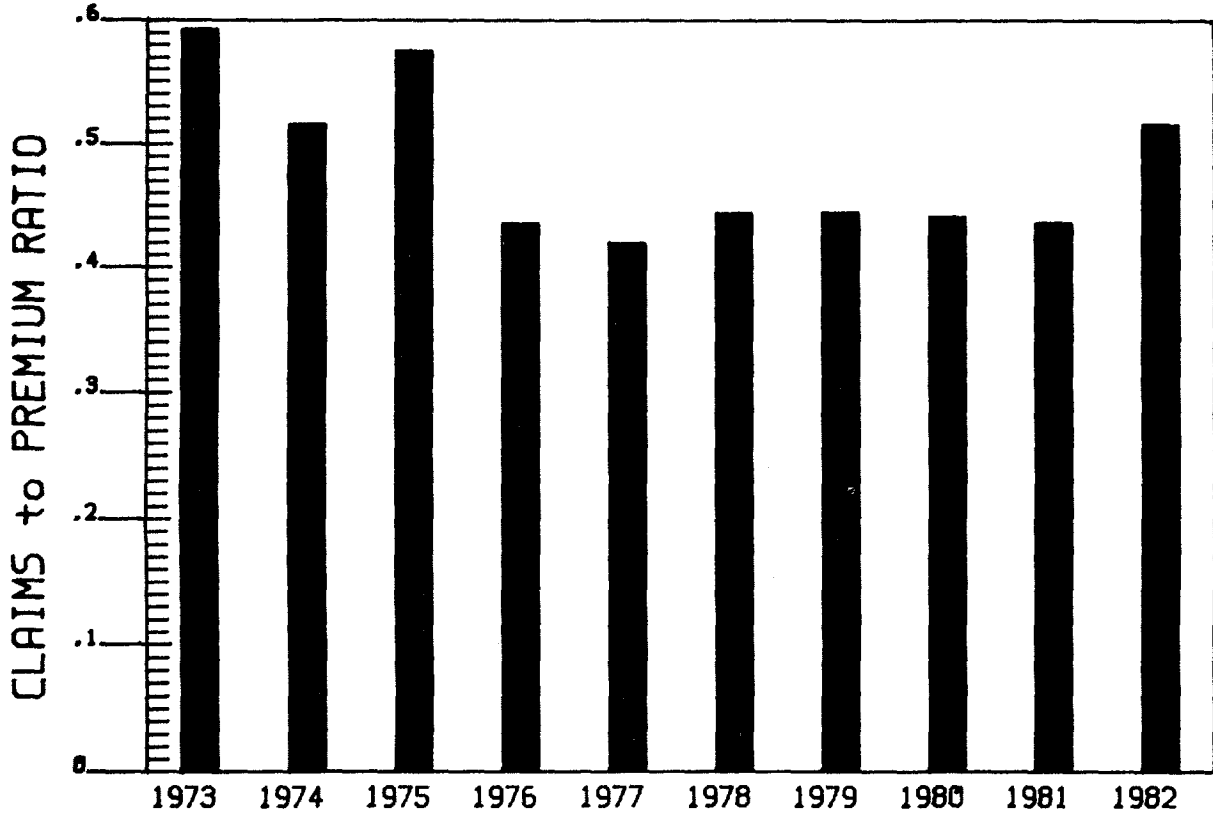


Chart 3

CLAIMS to PREMIUMS - 1973 to 1982



REINSURANCE
Chart 4

Table 1: Regression Statistics

Coefficient of Determination (R Sq) =	.90567
Coefficient of Multiple Correlation =	.951667
Standard Error of Estimate =	6.81819
Regression Sum of Squares =	40170
Residual Sum of Squares =	4183.9
Total Sum of Squares =	44353.9
F-Ratio (Regression) =	432.049
Degrees of Freedom =	2 & 90
Probability of Chance =	0.0000
Number of Cases (Subjects) =	93
Number of Independent Variables =	2

Table 2: Regression Coefficients

<u>Variable</u>	<u>Name</u>	<u>Mean</u>	<u>S.D.</u>	<u>Coefficient</u>
C	Constant			- .601127
IV1	In-Force	6.17381	7.91404	.456284
IV2	Premiums	39.9238	42.2624	.41579
DV	Claims	18.8158	21.957	

CLAIMS REGRESSED OVER IN FORCE

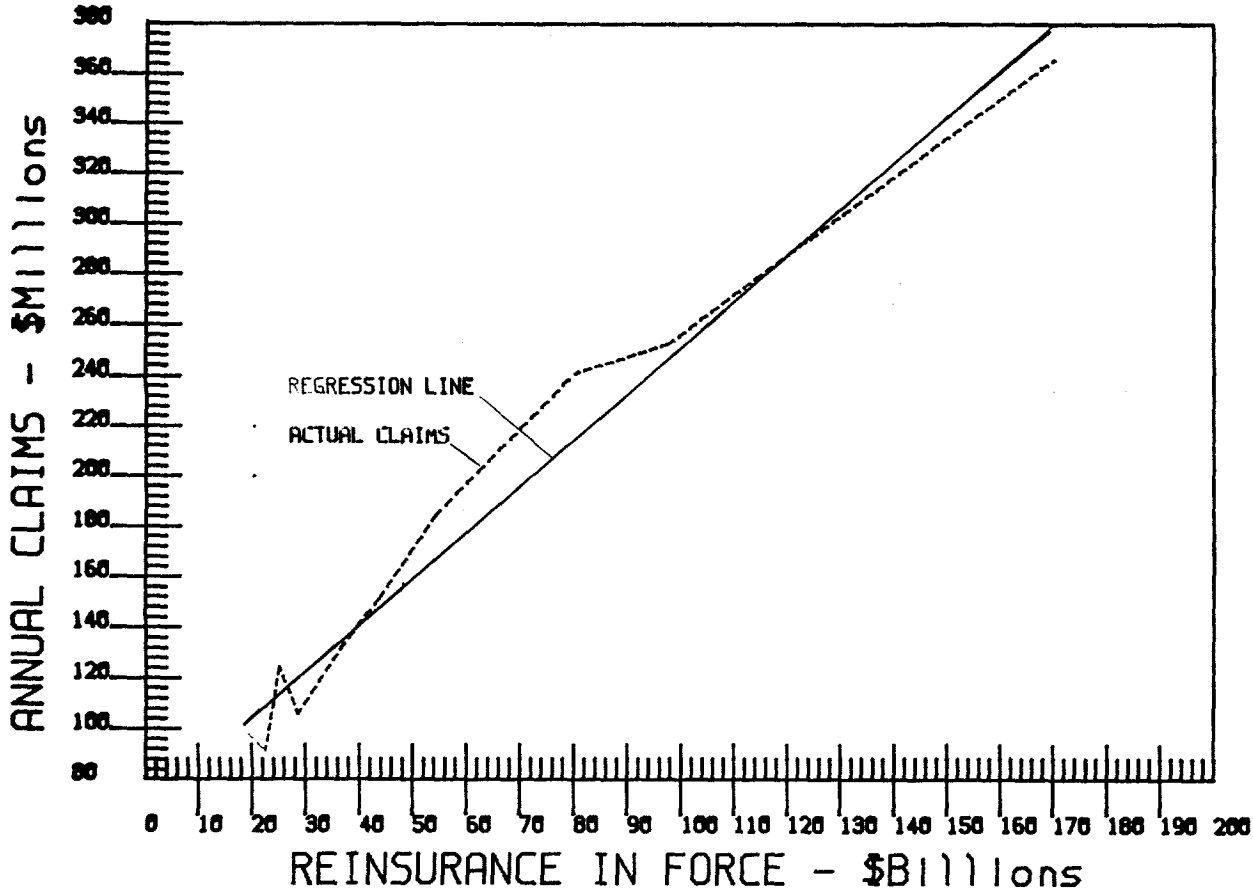


Chart 5

REINSURANCE

CLAIMS PREDICTED by IN FORCE

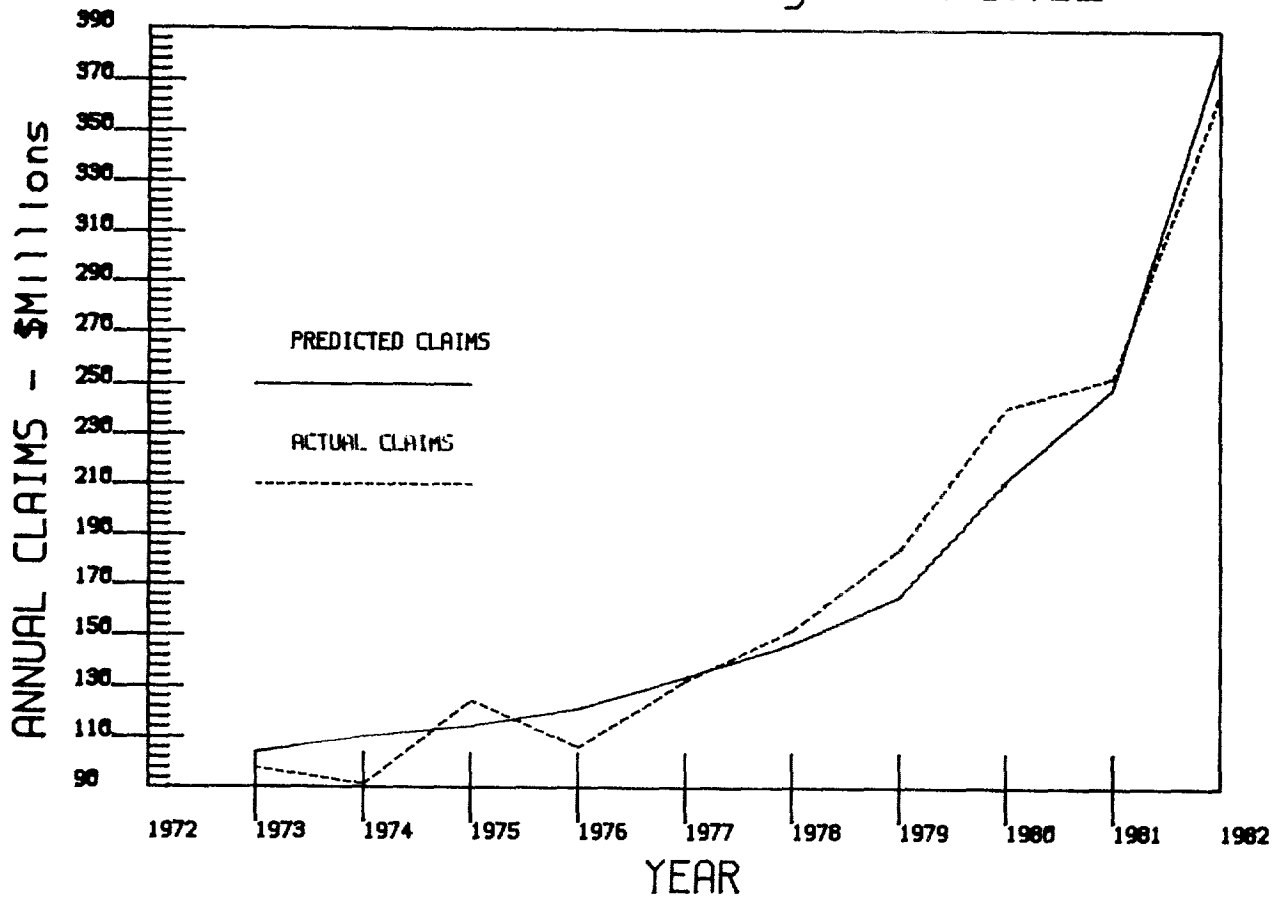
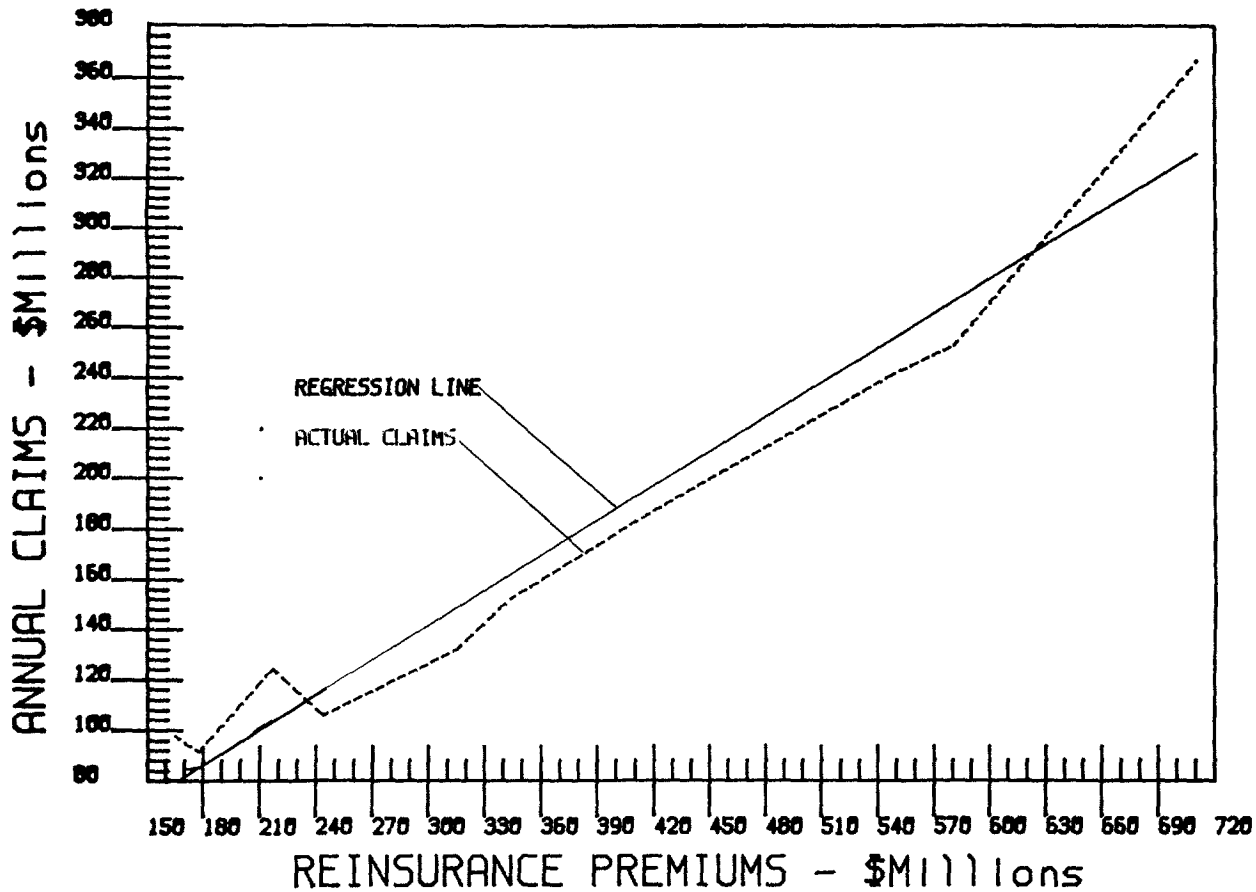


Chart 6

CLAIMS REGRESSED OVER PREMIUMS



REINSURANCE

Chart 7

CLAIMS PREDICTED by PREMIUMS

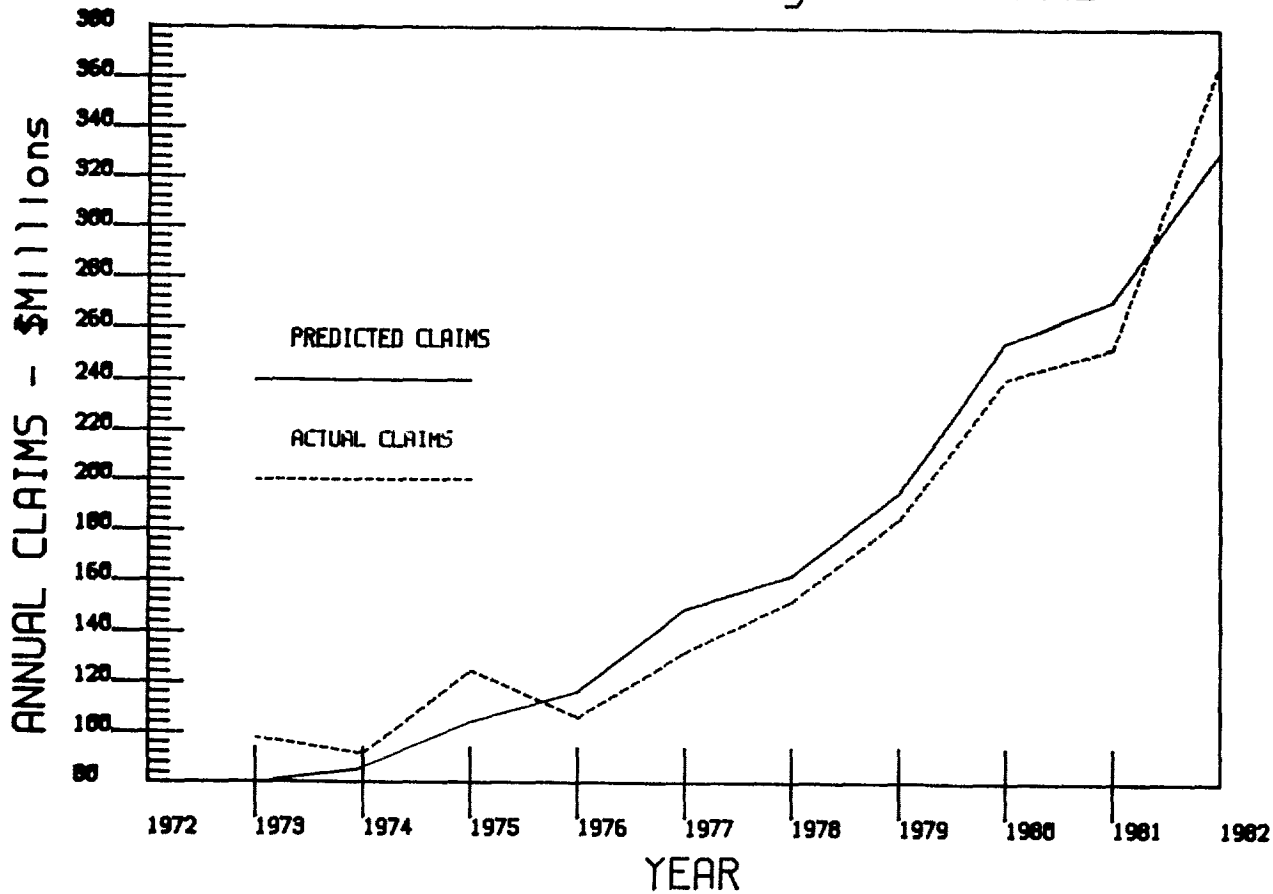
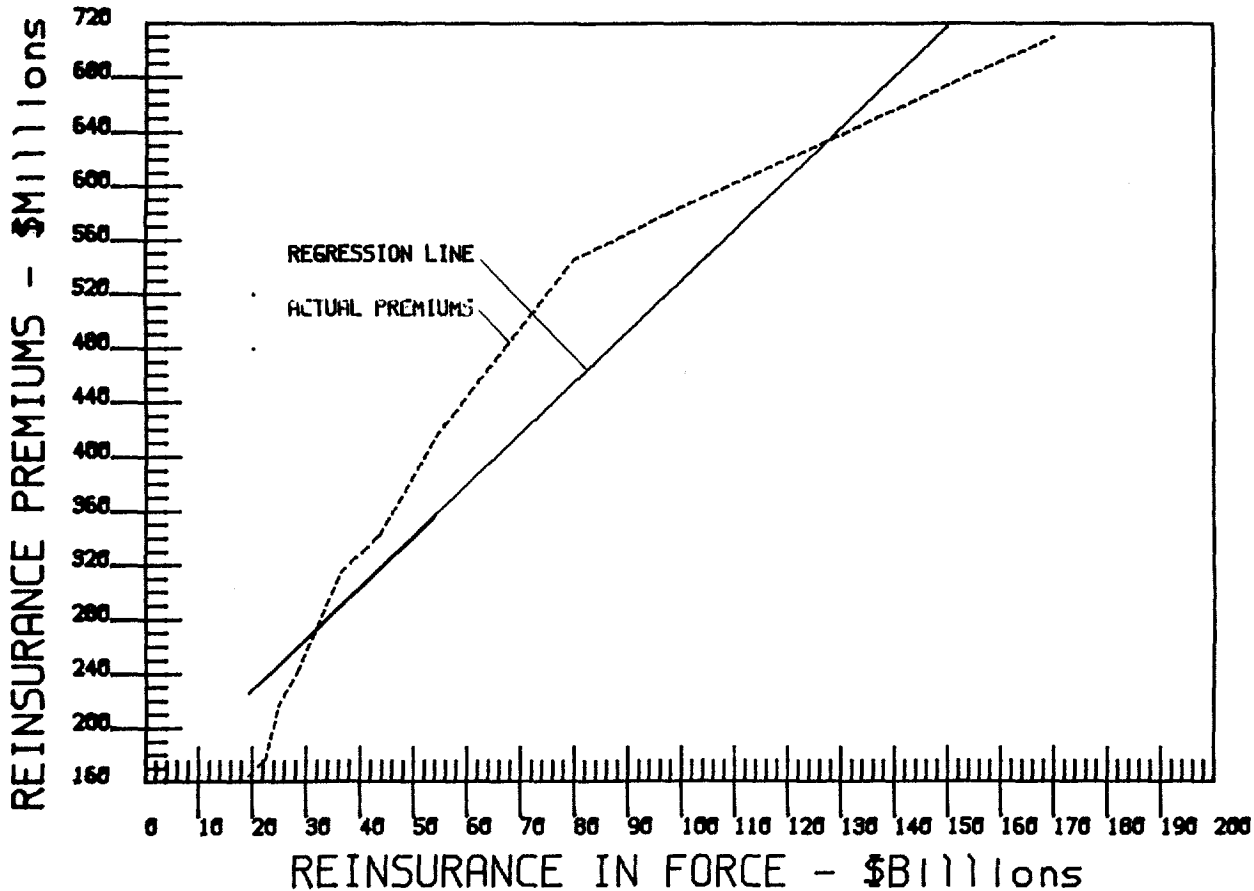


Chart 8

PREMIUMS REGRESSED OVER IN FORCE



REINSURANCE

Chart 9

PREMIUMS PREDICTED by IN FORCE

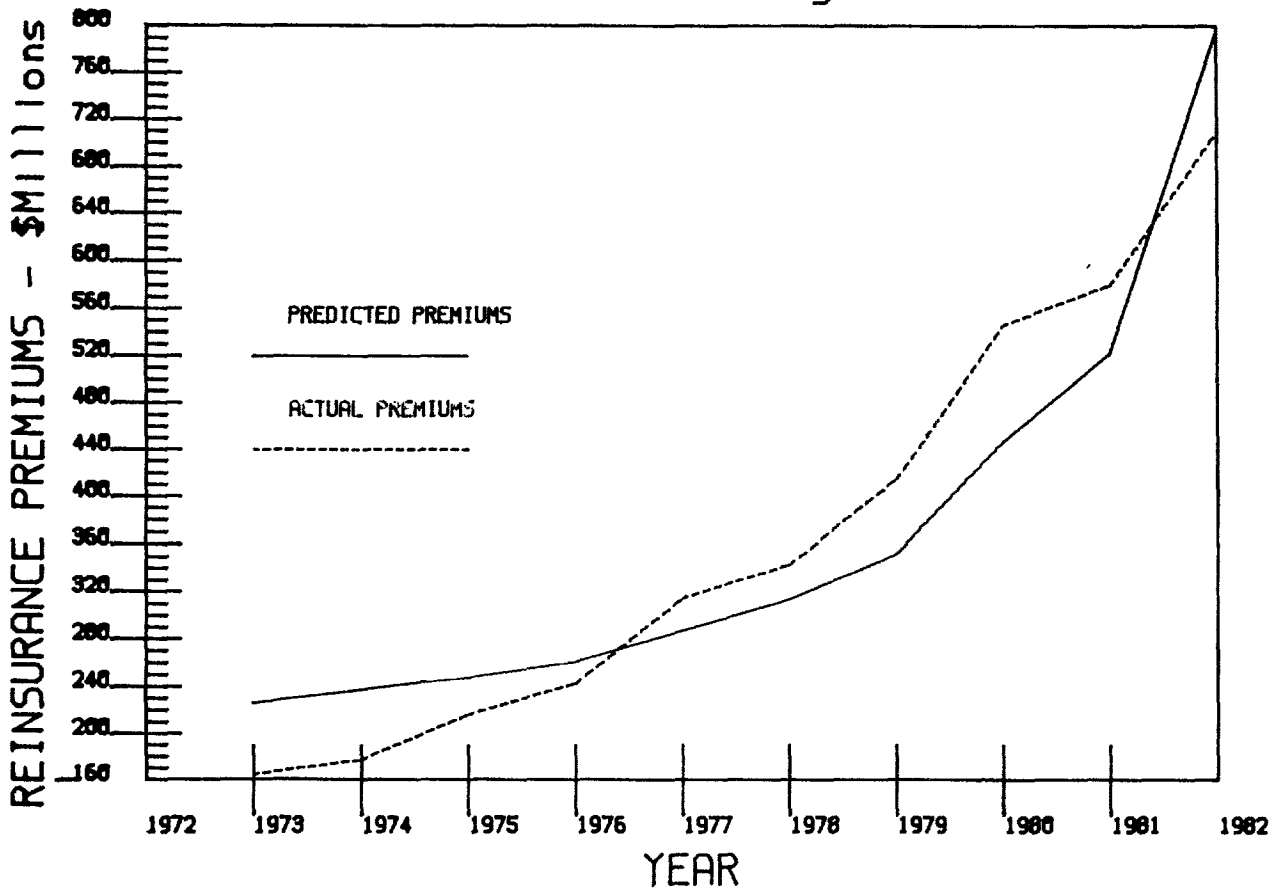


Chart 10

CLAIMS & PREMIUMS per IN FORCE

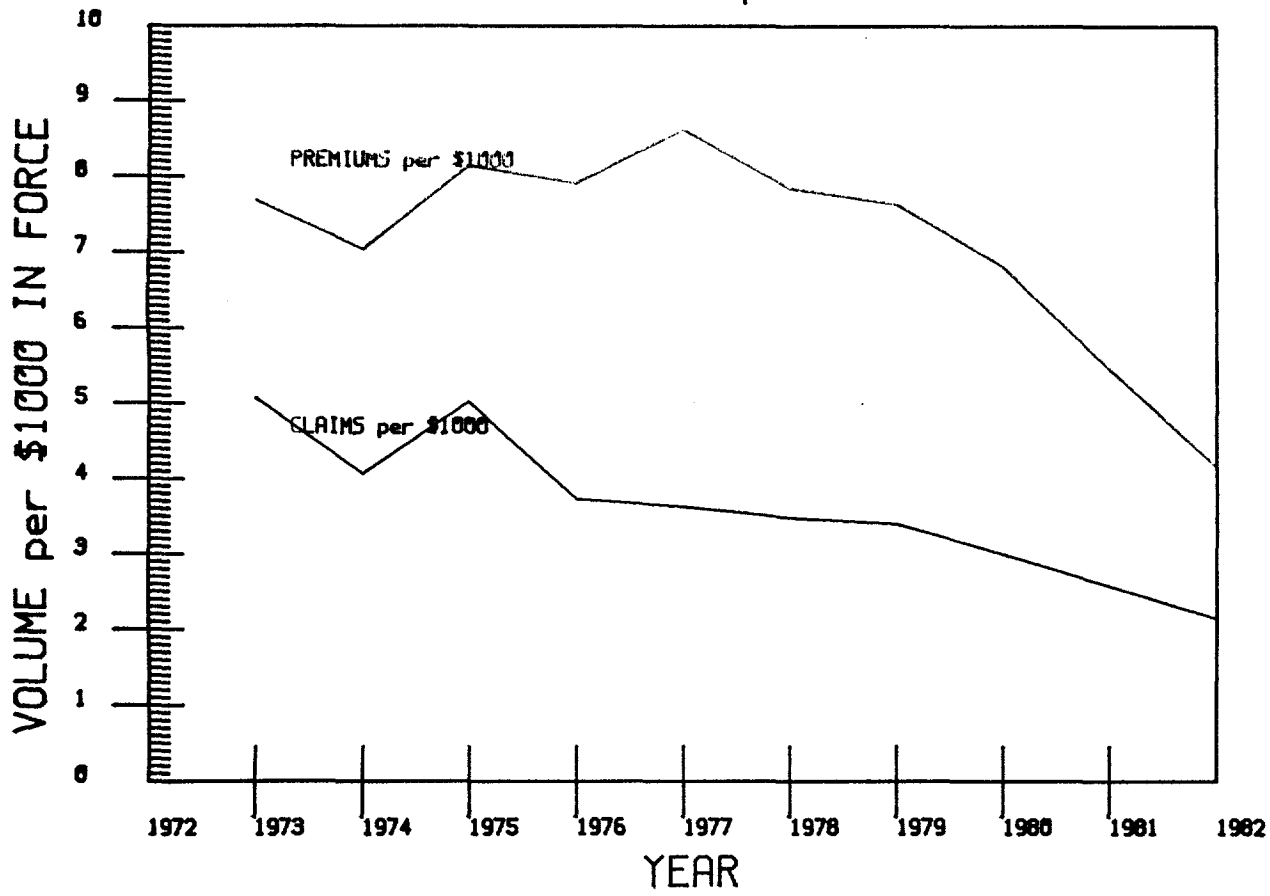
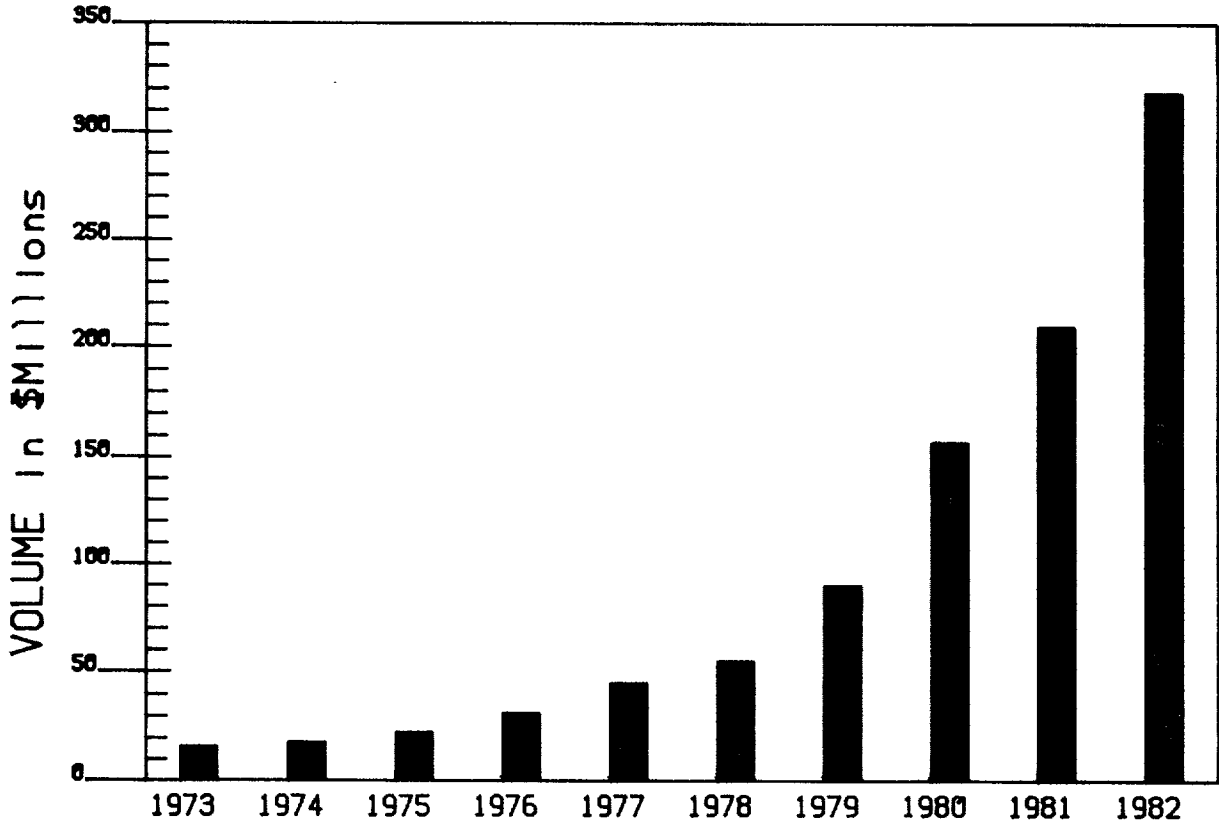


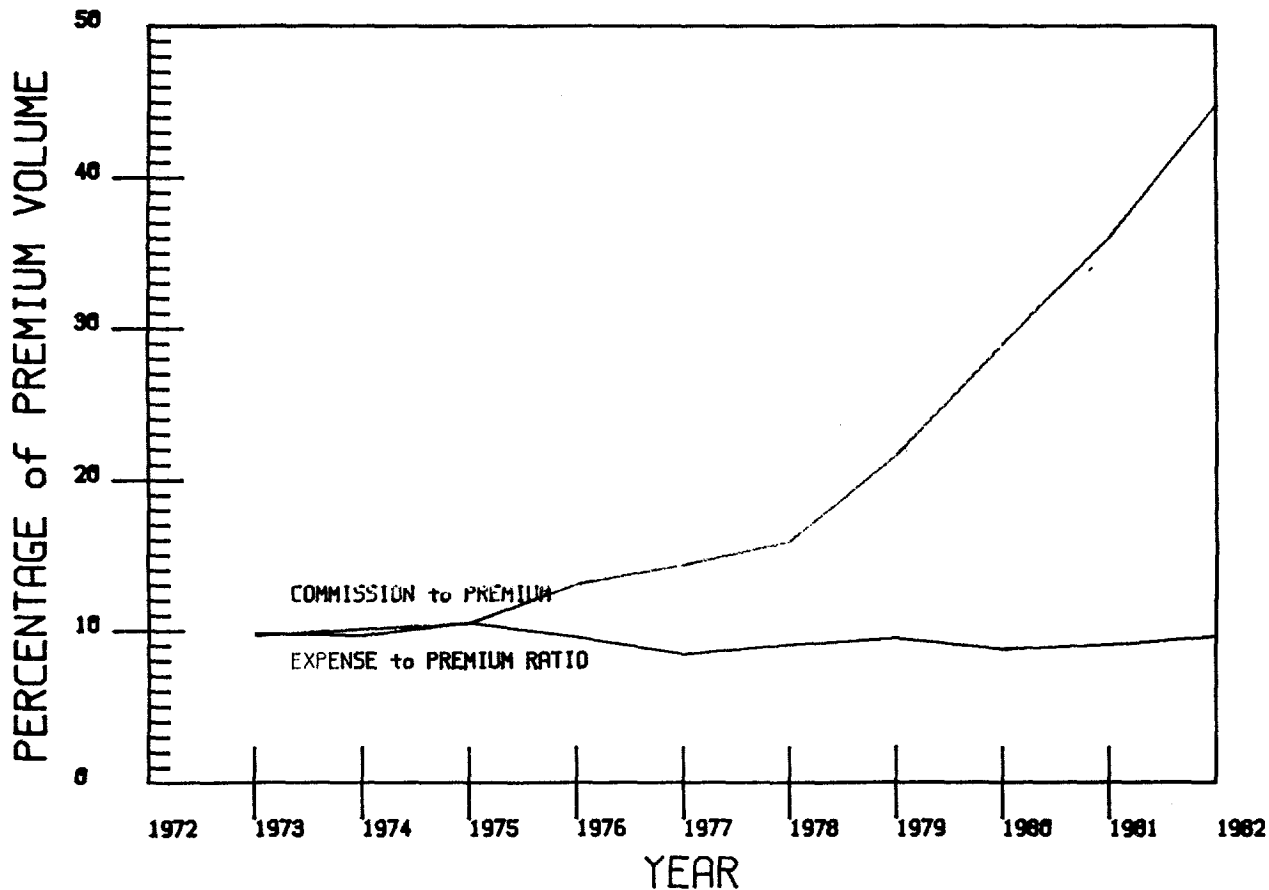
Chart 11

COMMISSION VOLUME - 1973 to 1982

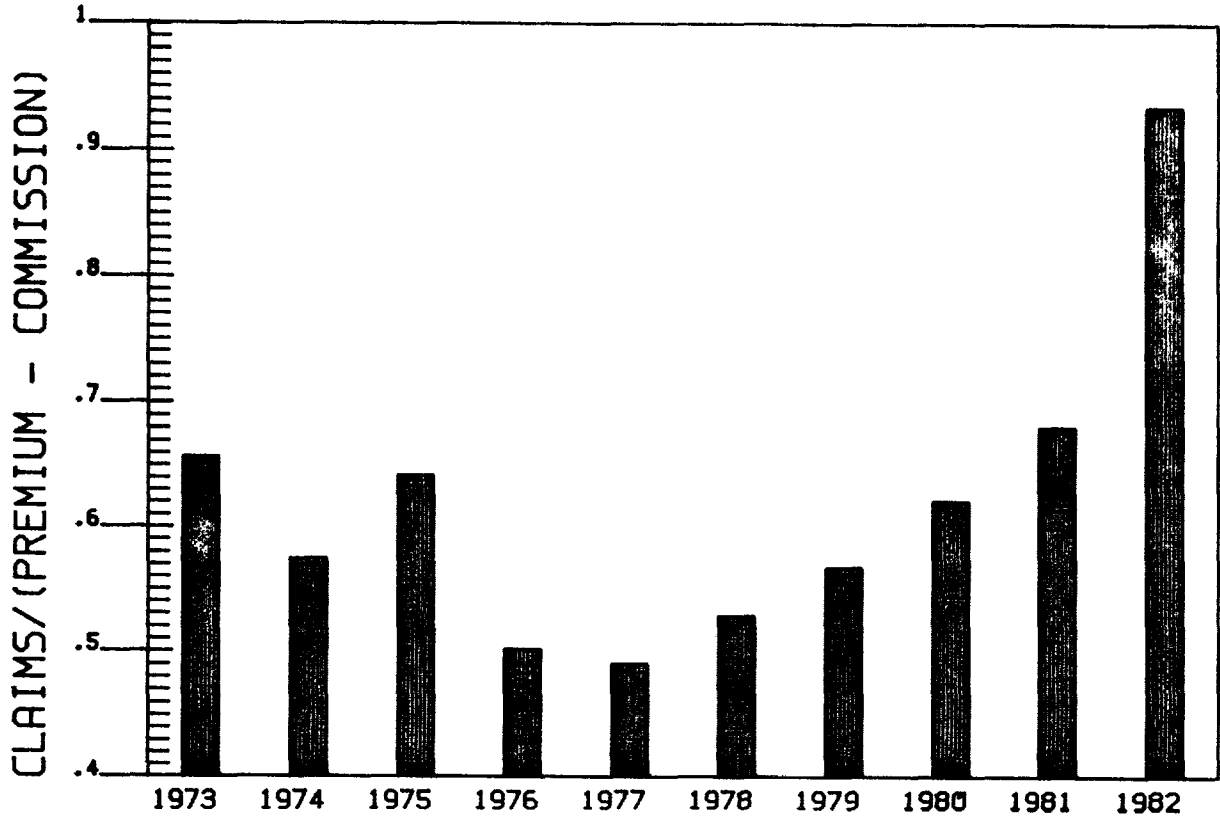


OPEN FORUM
Chart 12

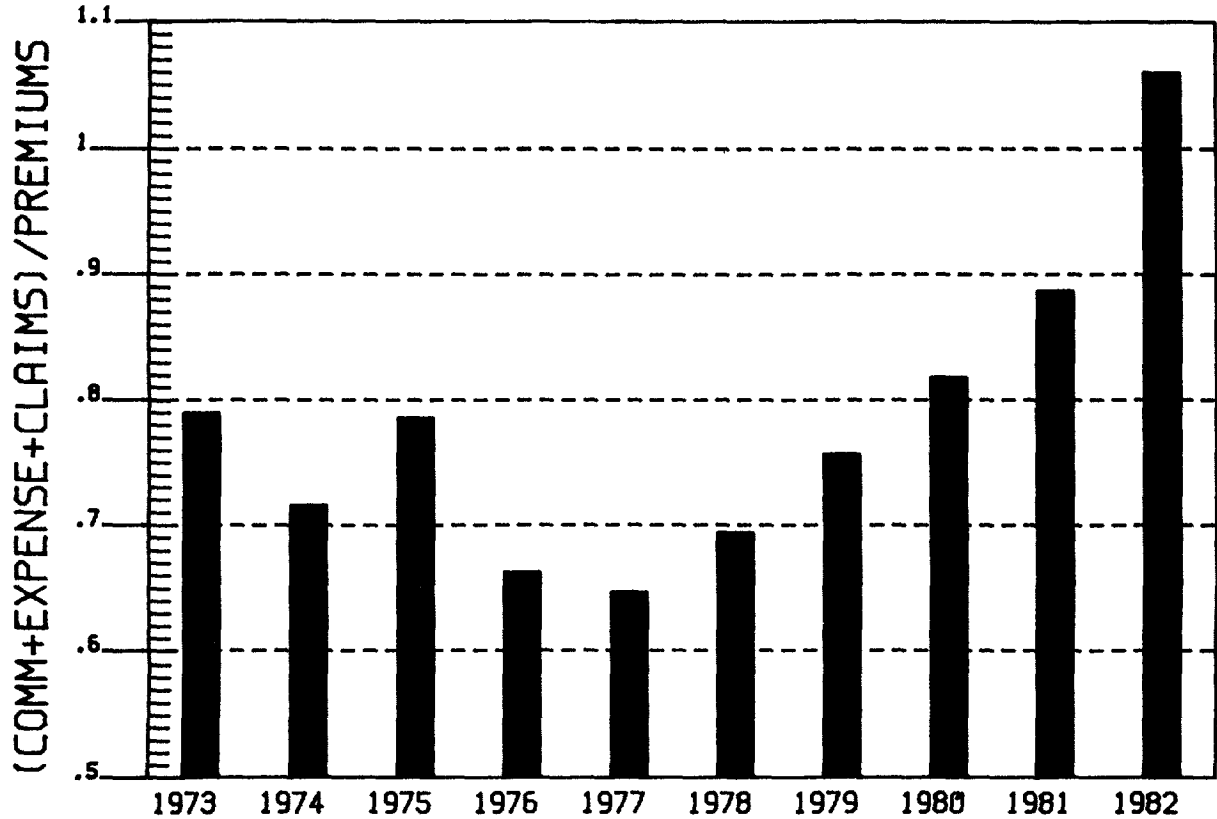
COMMISSIONS & EXPENSES to PREMIUMS



CLAIMS to PREMIUM after COMMISSION



EXPENDITURES to PREMIUM RATIOS



REINSURANCE

EXPENDITURES & RESERVES to PREMIUMS

