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**POLICY LOANS**

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1. The Problems.
2. Legal Considerations.
3. Allocation of Investment Income.
4. Basic Pricing Options.
5. Sales Problems.
6. Policyholder Considerations.

MR. JOHN H. HARDING: The typical life insurance agent of twenty years ago could make a very fine sales presentation about the value of the policy loan provision. Not only that, this presentation was not at odds with the interests of his company. It would concentrate on emergency borrowing and the facility to continue premium payments when the policy owner faced hard economic times. The policy loan rate itself was not stressed, because it was somewhat higher than prevailing rates available to many policyholders. Minimum deposit business and corporate ownership of policies were relatively rare. A far cry from today.

The policy loan problem is now so wide spread that the companies that our panelists represent could be selected at random. For example, the National Life Insurance Company, whom I represent, only happens to be the leader in policy loans, having nearly 50% utilization! Similarly, it was purely by chance that Kim Dickson is on the panel. The Connecticut Mutual was one of the leaders in introducing an 8% policy loan rate early this year, and the mountain of rate books from his company demonstrates successfully the considerable art needed to produce a coherent pricing structure in the face of multiple policy loan interest rates. The random selection of Mutual of New York, represented by Lew Roth, Vice President of Financial Services, was fortuitous because that company has done extensive work from a theoretical basis, even though they have not yet taken the plunge. Finally, the random selection process settled on the Northwestern Mutual, producing a lawyer, George Hardy, who is Legislative Counsel. Many of you here may be familiar with his outstanding work in the area of policy loan legislation at the state level. Without his talented efforts, far less progress would have been made toward the goal of getting all states to accept a more realistic policy loan provision. But, I have a confession. Don Welch, Assistant Actuary of the National Life is our Recorder, and he was not selected at random. He volunteered! Don was heavily involved in our efforts to fit multiple dividend scales into our computer system and to produce the necessary rate books in a short time interval. If you see him wince during this presentation, it may be the result of his memories of that process rather than either his role as Recorder or his disagreement with what may be said.

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First, let us consider briefly the general nature of the policy loan problem. From a company standpoint, high policy loan utilization will lead necessarily to decreased investment yield and probably to increased renewal lapses and increased expenses.

From a policyholder standpoint, there is clearly a pricing inequity that favors the borrower at the expense of the non-borrower. However, the borrower also pays a penalty. Few of them ever saw a financed proposal that extended for more than twenty years, and policyholders who continue to have a need for significant amounts of insurance at the higher attained ages, will find that they have the highest demand for outlay at the time when they can least afford it.

Even the agent gets hurt in the long run. His renewal compensation will be hurt by poorer policy persistency, while at the same time, he will probably have to be personally more involved in policyholder service. Further, the long-range impact on his company's competitive position cannot be ignored.

Finally, the public at large suffers because a major source of long-term capital has been diminished and the significant tax advantage to the borrower will reduce governmental tax receipts.

The Program Committee has made it clear to me that it is inappropriate for the Moderator to cry. Therefore, I will ask Lew Roth to explain in more detail the policy loan impact upon his company.

MR. LEWIS P. ROTH: The most serious problem, of course, with a policy loan interest rate which is not commensurate with general economic conditions is the excessive borrowing which it stimulates. This unnatural level of borrowing causes difficulties for both the company and the policyholders.

The two more serious financial problems caused by policy loan interest rates out of whack with current investment yields are the reduction in cash flow and high lapse. The cash flow problems are obvious. Not only do you lose the investment income which you could have gotten on higher yielding investments, but you may in fact put yourself in a cash strain. The adverse consequence of having to sell securities to meet your cash flow commitments can have disastrous effects on your investment income. The nastiest part of the cash flow problem is that at precisely the time where investment opportunities are best, you have the greatest cash flow reduction.

With regard to the lapse rates, we have well documented evidence that renewal persistency on high early cash value (HECV) business is terrible. It is, of course, the HECV business which stimulated the most borrowing. Poor renewal persistency will hurt premium growth goals of the company and drive up unit costs for all policies.

If all policyholders in a mutual company took equal advantage of the low borrowing rate, the situation would be unhealthy but at least it would be fair. The problem for the policyholder created by policy loan interest rates which are not in line with the rest of the economy is the inequity caused by varying utilization among different classes.

Because of these problems, we did a study of MONY early in 1975 to determine the extent of our policy loan problem. The results of that study which I would like to share with you now are quite enlightening.

It is probably obvious that those plans of individual insurance which are designed to have high early cash values will have a much higher utilization rate with regard to policy loans. Our study showed that the ratio of loans to total cash value for such plans was 65.8% whereas the ratio for all other plans was 24.1%. We expected to find that policies with larger face amounts would have a greater utilization rate than policies with smaller face amounts. Our study showed that this was true, but to an even larger extent than we had supposed. The study showed that the ratio of loans to total cash value for policies of face amounts of \$25,000 and over was 50% compared to a similar ratio of 20.4% for face amounts under \$25,000. Of course, in the face amounts of \$25,000 and over, we would have included all those plans with high early cash values where we know the loan utilization rate is much higher. Even after subtracting out all the HECV plans from the \$25,000 and over group, the loan ratio as a percentage of total cash values was still 39.4% almost double that of the plans with face amounts under \$25,000.

The study also indicated that the ratio for premium-paying policies was more than double the similar ratio for paid-up policies. Further analysis of the premium-paying policies by dividend option showed that 67% of cash values on plans using a one year term dividend option were borrowed, compared to 25.3% for all other dividend options; which only goes to show, I suppose, that if you design a plan with borrowing in mind, it is likely that your insureds will take you up on it.

Another interesting statistic which I have to share with you from that study is a most interesting one which shows that for those policies which have a policy loan interest rate of 5%, 28.1% of the available cash value is borrowed quite similar to 31.5% for those policies which had a loan interest rate of 6%. For all practical purposes, there was no significant difference between 5% policies and 6% policies. A possible explanation for this anomaly is that when interest rates generally available are high, it makes little difference whether your rate is 5% or 6%. Either is a good bargain and borrowing will be substantial. The same may be said of going to 8%. If interest rates generally available exceed 10%, we may find, again, substantial borrowing and need for a new drive to a more flexible regulation which matches current rates available elsewhere.

At the same time, we were examining utilization rates by product and market, we also examined utilization rates by agency and agent. The agencies with the highest loan ratio on regular plans also had very high ratios on HECV plans. The agencies were concentrated in the large metropolitan areas such as Boston, New York, San Francisco, and Los Angeles. The reverse was not true -- those agencies with highest loan ratios on HECV plans had average or lower-than-average ratios on regular plans.

The distribution by agent was very interesting. We again separated HECV plans from regular plans. The mean you may recall was 66% for HECV and 24% for regular plans. The mode, however, was 95% for HECV and 9% for regular plans. On HECV plans, we had 3,300 agents (not all of whom are still active, or were active at the time of the study); 22% had loan

ratios over 90%. On regular plans, 17,000 agents were included in the study -- again, not all were still active at the time of the study. 23½% of the agents had ratios of less than 10%, heavily concentrated at policies with no loans at all and another 24% had ratios between 10% and 20%. Only 3% of the agents had ratios over 90%.

With the names of the agencies and agents in hand, we decided to take a rifle approach rather than the shotgun approach and began conversations with those agency managers and agents with the highest loan ratios. The approach we took was one of moral suasion, although we had in the back of our minds more drastic action should the problem continue.

We concentrated first on those agents and agencies with high ratios on regular plans since our pricing was most seriously affected by high levels of borrowing in those plans. We then reviewed with them the advantages and disadvantages of minimum deposit suggesting alternatives such as term where it applied.

We also spoke with our field force about conserving highly borrowed policies rather than replacing them. We were able to show that the insured is better off paying the interest on a fully borrowed policy than surrendering it and purchasing a new one. This turned out to be true regardless of tax bracket. Of course, the higher the tax bracket, the more convincing the argument.

MR. HARDING: Kim Dickson, can you give us some insight from the point of view of your company?

MR. ROBERT K. DICKSON, JR.: National Life may be the leader but we also have an experienced perspective on the problem. Depending on how you keep score, CML ranks somewhere around number five in the policy loan sweepstakes. A few statistics will indicate what we are up against.

- . 32% of all our loanable cash values were borrowed as of July 1, 1976. In fact, we do a great deal of qualified plans business and when this low loan business (loan ratio of about 3%) is excluded, our ratio increases to 35%.
- . Our loan ratio has more than doubled over the past ten years. The ratio has grown more slowly in the past year but, even so, for the two years ended July 1, 1976, 41% of the total increase in cash values was borrowed.
- . Among our policyowners, borrowing seems to be a bit like eating peanuts. Twenty-four percent of all our in-force policies have loans and the aggregate loan ratio for this group is 72%.
- . We have estimated that a reduction in our loan ratio to 25% would increase statutory earnings by roughly 3½ million dollars per year after FIT and expenses. In order to achieve 25% we would have to hold our total loans constant through 1980, based on our projected rate of overall reserve growth.

As with MONY, our reaction to the problem has so far been pretty much limited to moral suasion.

MR. HARDING: As one reads the available statistics with respect to policy loans, it becomes apparent that in addition to other factors, the policy loan problem is a function of policy size. The larger the amount of the policy, the higher will be the ratio of policy loans to cash values. But, it is small comfort to my company that our high utilization rate partially results from our high average policy size.

When looking at lapse rate statistics, it is important to recognize that while the existence of a policy loan increases the tendency towards lapse, the numerator in the lapse ratio may be overstated by the inevitable consequence of the automatic premium loan provision being used as a non-forfeiture option.

Finally, it should be said that the cash flow problems arising from the use of the policy loan provision by corporations which own large amounts of cash values may be more serious than those posed by the individual who is paying for his coverage through the use of minimum deposit. Corporate treasurers are reasonably adept in using the policy loan provision to their own advantage. When long term interest rates are high, money gets borrowed out on a long term basis, and when long term rates are low, that money comes rolling back in at a very inopportune time. We have also experienced short term rate arbitrage, however. When a corporate treasurer cannot find a better opportunity for short term investment of cash, he may well temporarily reduce his policy loans instead of buying short term paper. Do not be too quick to take credit for a sudden corporate policy loan repayment of several million dollars as a positive response to your policy loan repayment program. Next week there may be some embarrassing counter explanations.

George Hardy, please tell us about the legislative and legal aspects of policy loan interest rates.

MR. GEORGE A. HARDY: I have discussed the subject of policy loan interest rates with many groups, most of them much smaller and less familiar with the subject than this one. For purposes of my presentation today, I will make two assumptions. First, I will assume that all of you know the meaning of a policy loan, a policyholder dividend, whole life insurance, cash value and so forth. Second, I will assume that it is not necessary for me to sell you on the need for more flexibility in establishing policy loan interest rates.

In May of this year, Walter Miller of New York Life discussed this subject before the Society in Houston. In an excellent paper he referred to some of the same material I plan to cover today. I will approach the subject from a slightly different perspective to avoid repeating Mr. Miller's presentation. The information included in this paper reflects the situation as of October 19, 1976.

Legislative Program Organized. In June of 1973, when the National Association of Insurance Commissioners adopted a Model Bill on policy loan interest rates and suggested 8% as the starting point for a maximum rate, many of us thought we could sit back and watch the insurance commissioners enthusiastically sponsor the Model Bill in every state and the legislatures eagerly pass it. Now, after more than three years, I can personally attest that few commissioners have been enthusiastic and fewer legislators have been eager. It soon became apparent that no such legislation would be

passed without the active and intensive efforts of the life insurance industry.

Our Northwestern Mutual team got involved in the legislative effort in December 1973 as the result of a request for help from the American Life Insurance Association (now the American Council of Life Insurance) on a proposed bill in South Dakota, which was enacted in 1974. Once we got involved, we stayed involved and have done what we could to get other companies involved. We continue to work closely with the American Council of Life Insurance but the legislative program we are engaged in is operated and financed separately by a group of about fifteen life insurance companies with the valuable help of at least 100 additional companies. This program has been carried on in most of the states where legislation is needed, but we have not been directly involved in Hawaii, Massachusetts, New York or Vermont, partly because others are actively working on similar legislation in those states.

In late 1973, a policy loan interest rate of 8% or higher was permissible under the laws of 25 states (in this paper the District of Columbia will be treated as a state). An early decision was made to seek legislation in the states which imposed a lower limit, usually 6%, and make no effort to pass a bill on policy loan interest rates in states where an 8% rate was already permissible under the statutes.

We have made progress but it has not been easy. The good news is that our efforts have been successful in nine states so that an 8% is now permissible in 34 states. In addition, our bill was passed by the Michigan Senate on October 7 and we are hopeful that it will be passed by the House when the Michigan Legislature returns after the November elections. The bad news is that our efforts have failed so far in 12 states, in some of them after repeated attempts. In addition, the efforts of others have been unsuccessful in Hawaii, Massachusetts, New York and Vermont.

We are continuing our legislative efforts and are well into our planning for 1977. Of the 17 states whose statutes do not permit an 8% rate, we will probably promote 1977 bills in Arizona, Arkansas, Florida, Nebraska, Utah, Washington and West Virginia; and possibly Maryland, Montana and New Mexico. We expect that similar efforts will be made by the domestic companies in Massachusetts, New York, Pennsylvania and Vermont. We will leave Alaska and Hawaii for later, although we are looking for volunteers.

Variations in Bills. Of the nine states where we have succeeded, in four states (Idaho, Oklahoma, Virginia and South Dakota) legislation based on the Model Bill was enacted; in three states (Delaware, Louisiana and Oregon) a simple increase from 6% to 8% was made by amendment of a departmental rule; and in Rhode Island, which had a 6% limit applicable only to automatic premium loans, an increase from 6% to 8% was made in that limit.

These variations from state to state are less significant than they may appear. Our goal is to secure an 8% maximum rate and whether that is achieved through the Model Bill or a straight increase to 8% is relatively unimportant. Which approach is used will often depend on the preferences of the Insurance Commissioner or the domestic companies of the particular state, since we try to work closely with them at every stage of the legislative process. We also employ local legislative counsel to handle direct contacts with the legislature.

Commissioners, Agents and Legislators. Having been involved in the policy loan problem in about 30 states, I have found that the situation is different in every state. Most insurance commissioners and their staffs have been very helpful. This is important since opposition by a commissioner can kill a bill before it gets off the ground. Fortunately, only two commissioners have actually opposed legislation to permit an 8% maximum rate.

Many life insurance agents have been very helpful, although in a few states we have encountered opposition by some agents. Such opposition is usually based on a lack of understanding of the policy loan problem or apprehension about the effect of a higher rate on sales. For some agents selling on a minimum deposit basis, policy loans are not a problem but an opportunity. Fortunately, more and more agents are recognizing the need to use a more reasonable policy loan interest rate.

Legislators are sometimes difficult to convince for two reasons. First, many of them are dedicated protectors of the consumer and it is difficult for them to see that an increase in the policy loan interest rate will benefit the average policyholder rather than hurting him. Second, Legislators are preoccupied with many burning issues, and the problem of low policy loan interest rates does not generate many letters of complaint from constituents.

In selling an 8% bill to legislators we emphasize that a low policy loan interest rate results in the subsidization of those who borrow on their policies by those who do not borrow; that most borrowing is done by the larger policyholders so in general the larger policyholders are enjoying a windfall at the expense of the smaller policyholders. We also emphasize that life insurance can be provided at lower cost if an 8% maximum rate is used, through higher dividends or lower premiums. Other arguments which are sometimes effective are the effect of policy loans on persistency, the importance of the life insurance industry as a source of long-term capital, and the potential adverse effects of policy loans on the liquidity and solidity of life insurance companies.

We often stress that we are not happy about the need to increase the maximum policy loan interest rate to 8%; that we would be glad to see inflation brought under control and interest rates return to the level of 10 or 12 years ago. However, our economists feel that we may not see a return to those conditions for some time.

Wrong-Way Legislation. While in many states we are trying to increase 6% limits to 8%, efforts have been made by others in California and Ohio to impose 6% limits where we are now using 8%. So far those bills have been defeated but similar problems can be expected in the future.

In Kansas there is a 6% limit on interest rates for reinstatements but no limit on policy loan interest rates as such. The Insurance Department has refused to approve an 8% policy loan interest rate on the ground that the rate used for policy loans should be consistent with the reinstatement rate, although such approval was obtained in several other states with similar statutes. In 1976 a basically unnecessary bill was introduced in Kansas to establish an 8% interest rate for policy loans. It passed the Senate but in the House it was amended to establish a 7% limit. In that condition it was much worse than no bill at all, so it had to be killed.

Regulatory Problems. The North Carolina Insurance Department also refused to approve an 8% policy loan interest rate. We requested hearings on the disapproval of our 8% policy forms in both Kansas and North Carolina. The hearings were held this summer in both states. The North Carolina Department has announced that it will approve an 8% rate but the Kansas Department has not yet arrived at a decision. If a favorable decision is not received soon in Kansas, it is likely that this issue will be resolved in court.

In the fifteen states imposing a 6% rate for reinstatements but permitting an 8% policy loan interest rate, we plan to use 8% on policies in good standing but for those in default we will charge 6% on policy loans from the date of a lapse to the date of the reinstatement. This will create minor administrative problems, but we feel that the legal requirements are clear. Some companies will find this a more difficult administrative problem than others.

In Delaware the bill passed in 1975 was amended to provide that before approving a policy loan interest rate higher than 6% "the Commissioner may require assurances by the insurer that the holders of such policies will benefit from the increased earnings of the insurer resulting from the use of such higher rate, through the use of higher dividends or lower premiums, or both." In my opinion, the regulation adopted to implement that language (a) has no sound legal or actuarial basis, (b) does not address itself to the requirements of the statute, and (c) is unintelligible. It provides that for policies using a policy loan interest rate in excess of 6%:

"The minimum standard for the valuation of all policies and contracts shall be a change in the reserve value interest assumption of not less than one-half of 1%, and a comparison indicating a benefit for the insured/owner using the NAIC surrender cost index, or any other comparison such as the traditional net cost approach."

I feel that the validity of the Delaware regulation is in question, but it seems likely that the Department will ultimately substitute a sound regulation which is consistent with the statute. In the meantime at least two companies are using 8% in Delaware on the basis of policy forms approved before adoption of the regulation.

Other Legislative Wrinkles. There have been many other proposed amendments to our bills, some of them much worse than the Delaware amendment. It is likely that we will continue to see our bills amended by hostile forces and we may have to accept compromises which are fundamentally unsound.

Another approach is found in two states with no limit on policy loan interest rates but unusually low basic usury limits, Michigan at 7% and Pennsylvania at 6%. It is not completely clear whether these usury limits apply to policy loans but we have assumed that they probably do. In both Michigan and Pennsylvania the usury law does not apply to any transaction for which a different maximum rate is specified, and numerous exceptions have been created by such special provisions. The bills we have promoted in Michigan and Pennsylvania would create another exception by imposing an 8% limit on policy loan interest rates where there is no limit, as such, under present law.

In some states policy loan interest at 6% may be charged annually in advance, while in others interest charged in advance is limited to 5.7%; in New York the 5% limit is actually 4.8% if charged in advance. This approach will undoubtedly be carried over in the 8% states and some of them will probably permit only 7.4% in advance.

Fixed or Variable Rate. There has been a great deal of discussion about using a "variable" interest rate as compared with a "fixed" rate. As a practical matter we feel that there is no significant difference. At Northwestern Mutual we have been forced to use five different provisions for 8% maximum rates but they all have essentially the same effect. As we view it, the interest rate in such policies is 8%, but during a particular year the Company may charge less if it sees fit. The real test will come if we ever reduce the rate to 7% on such policies and later go back to 8%. However, it may be a long time before economic conditions produce that sequence of changes.

Relationship Among Interest Rates. This raises the question of the proper relationship between the policy loan interest rate and other interest rates. We believe that the policy loan interest rate should be roughly related to the rate obtainable by the Company on new long-term investments, with some margin to cover administrative costs. We feel that the policy loan interest rate should not be tied to an index of any kind, and that the very worst index to tie it to would be the prime rate. If it became necessary to use an index it should be an index related to rates on the new long-term investments, not short-term rates.

Uniformity is Needed. In the matter of policy loan interest rates the life insurance industry is in a transitional period. More and more companies are using three different policies, three different rate books, and three different dividend or premium structures. This creates extra costs, administrative complexities, border problems and other uncertainties. The sooner we get through this transitional period so that we can use a uniform policy loan interest rate throughout the country, the better it will be for everyone. By working together we can achieve a uniform 8% maximum, as recommended by the NAIC, which will permit us to reduce inequities among groups of policyholders and provide life insurance at the lowest possible cost.

MR. HARDING: Kim, would you like to comment?

MR. DICKSON: I generally agree with George on the administration of a variable interest rate. Certainly, long-term fixed dollar investments should be the bench mark. While on this point, some mention should be made of the basis on which the 8% rate will be adjusted in the future. You will probably want to think this through even though it is unlikely we will see a decrease in the near term; if you expect to get Nevada approval of 8%, you will have to describe your approach to them. As a practical matter, business considerations will undoubtedly rule out a purely subjective approach. Policyowners and agents will certainly be interested in the rationale of loan rate adjustments. We have not yet determined just what criteria we will use but they will undoubtedly involve the tracking of expected gross returns on bonds and mortgages; not only the current level but the expected trend must be considered. The proper relationship between the loan rate and the chosen bench mark involves con-

siderable judgment, but it would seem the loan rate should be roughly comparable to the bench mark. The factors which will be weighed in this evaluation are expenses, FIT, risk and company philosophy. Historically, policy loans have been quite expensive to administer due to manual processing of small amounts; with automation, this may not be true but it should not be overlooked. Obviously, any differential in net return will be reduced by your marginal FIT rate. Risk cuts both ways on loans - the principal is virtually risk free but they are not at all liquid and it is difficult to predict repayments. In addition, the need to maintain a somewhat more liquid position in the investment portfolio (to meet heavy loan demand) has an adverse impact. By philosophy, I mean the prevailing corporate attitude toward loans which may in turn reflect marketing considerations. In many cases the net result of these factors will indicate a loan rate somewhat higher than the bench mark.

Short term rates should not be ignored but because of their volatility, they cannot be given much weight.

MR. HARDING: Lew Roth, can you comment on the investment allocation considerations?

MR. ROTH: Much discussion has been generated concerning investment year method of allocating interest following the Equitable's announcement. I do not intend to go through the pros and cons of applying such a method to individual life policies, but since some of us have examined its implications, we could discuss how it affects the policy loan pricing considerations. Before I go into that, though, I do want to state that my company, MONY, does not use the investment year method for individual life insurance although we do for individual retirement annuities.

Whether you use the traditional portfolio rate method or an investment year method, the problems are basically the same: (1) adjust your yield for policy loans, (2) calculate an aggregate rate for each group you intend to differentiate among, (3) adjust for Federal Income Tax, (4) translate rates from an annual statement basis to an actuarial fund basis, and (5) translate those rates from a fund basis to a dividend interest basis. Let us discuss each of these problems.

For pricing purposes, one cannot account for every possible variation in utilization rate, but should select those few which are the most significant. Our 1975 analysis suggested three possible variations:

- . HECV plans vs. Non-HECV plans.
- . Face Amounts of \$25,000 or more vs. Face Amounts under \$25,000.
- . Premium paying vs. paid-up.

There are also significant differences between pension business and non-pension business.

Of course, separate pricing must be considered for policies with 5%, 6%, and 8% policy loan interest rates because of the actual interest earnings, but the utilization rates for 5% and 6% policies were not significantly different and therefore, one might use the same utilization rates for all three.

Let us say you decide to differentiate between HECV and non-HECV as one of the variations:

- . One way to accommodate policy loans is to notice that regular plans are about 28% borrowed and high early cash value plans are 66% borrowed. If we take either the entire portfolio rate or each generation rate and combine it with the policy loan yield in a 28-72 or 66-34 mix, you will have accounted for policy loans. It can be argued that full weight should not be given in the early policy years because loans are not so prevalent there. However, if you do not give full weight for policy loans even in the early durations, you might wind up illustrating dividends 10 or 15 years down the road which will not be supportable when we get there because policy loans have hit.
- . If you use an investment year method, an aggregate rate must be calculated for each generation using actual generation interest rates before tax with policy loans included. They can be combined by assuming a premium of one dollar a year with the rollover rates we know and some lapse assumptions.
- . There are many ways to adjust for FIT. Let me describe 2 possibilities: One way to adjust generation interest rates for taxes is to note the yield on the whole portfolio before Federal Income Tax and after Federal Income Tax. If we take the difference between the generation rate and the portfolio rate before tax, multiply it by one minus the marginal tax rate, and add the result to the after-tax rate on the whole portfolio, we should get a reasonable approximation to the after-tax rate on the generation.

This method assumes that the marginal tax rate on the excess (or deficit) over the portfolio rate is the same for all generations. Although this is not an unreasonable assumption, a more precise calculation might assume that each generation is a separate, closed block company and taxes can be computed on the earnings of each series separately. The problem here is that the total of the taxes on each series will not likely equal the total tax paid by the company and some allocation of the difference will still have to be made.

With fund interest rates in hand, you should run your asset shares with all selling expenses charged in the first year, even if this is not your usual method for running funds. This is especially important in the case where investment year methods are used since it insures that interest on deficits is properly charged. Finally, you can then solve for a dividend interest rate which produces dividends that give you a reasonable surplus position.

One of the more interesting anomalies which occur with an 8% policy loan interest rate using the traditional approach is that the greater the utilization rate the better the dividends. Let us say you have priced for a 30% utilization rate and later you find you are actually experiencing only 20%. Because your yield rate on a traditional basis before adjustment for policy loans is probably lower than 8%, your actuarial fund interest rate will probably now be lower than expected and, theoretically, a dividend decrease is called for. On the other hand, if your utilization rate is lower than expected, your portfolio rate will climb faster as time goes on (assuming, of course, new money rates stay higher than 8%). This would cause a better-than-illustrated dividend to be paid in the future.

Since the interest element in the early years is small, practical considerations will probably lead you to continuation of your illustrated scale. But, this will have to be recognized when, in the future, your experience looks a good deal better than you had expected.

If you use the investment year method, this anomaly does not come up since your new money rate is likely to be higher than 8% from the outset.

MR. HARDING: Kim Dickson, what about the basic pricing options?

MR. DICKSON: Par and Non Par. Since I know very little about guaranteed cost pricing, that seems like a good place to start. It seems to me that if a decision were made to adopt 8% the basic approach will not be fundamentally different than with par. Either way, the differential between, say, 6% and 8% boils down to the assumed after tax impact of the loan activity on projected investment income. Loan activity means the percentage of loanable values at each duration that is borrowed and this may be expected to vary by plan, amount, premium-paying status and, perhaps, loan rate. Presumably, profit or asset share margins should be equated for each loan class. In the interests of conservatism, the resulting premium differentials for a guaranteed cost product undoubtedly will be somewhat less than corresponding dividend differentials for par.

There are differences between par and non par, however. For example, if you guess wrong on the assumed loan ratio for a par product, the error can be corrected through future dividend actions; while this is obvious it is important because, in the absence of any experience to go by, there will be a fair amount of guesswork in picking the loan ratios for 8% policies. One way to deal with this is to do some sensitivity testing with various loan ratios and ratio patterns by duration; the latter may be especially important if interest rates generally are expected to change significantly in the future when loan values will be building up. This last point also raises the question of whether loan interest rates on non par products would be lowered after issue if conditions should warrant it. While this possibility could be taken into account in the original pricing, this further compounds the element of uncertainty. While none of this is unsurmountable, the added complexity may say a lot about why none of the major stock companies have moved to 8% at this point.

With respect to par pricing, there are many approaches which could be used but I would like to take a few minutes to describe what we have done at CML as a part of a new policy series introduced February 17, 1976:

- . We wanted a fairly simple approach which would do a reasonable job of reflecting the impact of loan activity on asset share margins.
- . We decided early that the dividend adjustments would be expressed as a function of the loan value at each duration rather than, for example, the interest element of the dividend. It is my impression that many companies have done the latter.
- . Since we had no experience on which to base our expected loan ratios for each plan, loan rate, etc., we decided to make the simplifying assumption that, as in the past, loan ratios would vary by plan (HECV vs. others; pension vs. non-pension), but not by loan rate or by face amount.

- With loan ratios constant for all interest rates, the resulting dividend differentials are linear (i.e. the 6%/8% differential for any duration is twice the 5%/6% differential). While it appears that some other companies have made a similar assumption, it is reasonable to ask how valid this is in theory.
- The final assumption we made was that marginal tax factors for investment income would not change over time; this combined with constant loan utilization rates produce dividend differentials which are constant for all durations when expressed as a percentage of the cash value.

As mentioned, our approach is one of many. It suits our needs in that we feel it makes a very reasonable provision in our dividends for the impact of the different loan rates and it can be accommodated rather easily within our computer systems. Each of the assumptions and decisions that we made along the way represents but one of several alternatives; with all these options the number of possible variations on the theme are very great.

Atypical Plans. We used the approach outlined above for all our non-pension policies. For most of our non-pension premium-paying policies, we used a loan ratio of 35% regardless of loan interest rate; for our early cash value plan we assumed a 67% ratio. In each case, our assumption followed our recent experience. As mentioned earlier, only about 3% of our qualified plan cash values have been borrowed. While this percentage may increase in the future, the current activity would not result in appreciably different dividends for 5%/6%/8% so we chose to illustrate a single dividend scale even though our policies are being issued with different loan rates. This decision greatly simplified the rate publication process and the modifications of our computerized pension proposal system. On the other hand, the question was raised as to whether we would be free to differentiate in future dividends should the level of borrowing increase significantly; we believe such action would be entirely proper.

For paid-up policies we used a loan ratio of 25% which again is consistent with our recent experience.

Fluctuations in Loan Rates and Utilization. The net result of the above is 6%/8% dividend scale differentials which for Whole Life are in the range of 25¢ to 50¢ per year per thousand over ten years and 50¢ to \$1.00 over 20 years. While these differences are not dramatic in absolute terms they do have a significant impact on competitive rankings. We appear to be about in the "middle of the pack" in comparison with other companies' differentials. This does not surprise us despite our relatively high level of policy loans because our new policy series has rather low cash values per \$1,000 especially in the first ten years.

To the extent that our original assumptions about future loan rates and utilization levels prove to be incorrect, our response will be the same as for variations in any other experience factors which bear on pricing i.e., we will change dividends accordingly.

It is very likely that our experience as to utilization rates by plan and loan rates will differ from our assumptions. We plan to track our experience very closely. Departures from our assumptions will probably not have any major impact in the early years because of the relatively low

level of cash values ... as we get out to ten years and beyond the likelihood of significant swings will be much greater. If, by any chance, long term interest rates, in general, were to drop below 8%, then a reduction in the loan rate becomes a possibility. With our level of loan activity, a drop in the loan rate to, say, 7% could mean a significant reduction in the 8% dividend scale.

MR. HARDING: It might be worthwhile to point out that my company differs in its pricing of the dividend differentials. First, we do not use the cash value as the basis for determining the interest element to the differential. Second, we assume the same utilization rate for each plan, but not for each policy loan rate. We just do not expect that 8% policy loan utilization will be as high as 5% or 6% utilization. Third, because utilization rates have been a function more of policy size than of plan of insurance, we felt that the pricing anomalies that will arise from the use of different utilization rates by plan would probably cause a shift in those rates.

We also reflect the disproportionately higher tax on the higher investment yield of our 8% policies, so that the differential is less than it might otherwise have been.

With respect to pension trust, we know our loan utilization assumption for qualified business is overstated. We adjust for this in our dividend differential for qualified plans.

MR. HARDING: Lew, what did you do with regard to your high cash value policies?

MR. ROTH: An interesting question which came up at our Company is "should we continue our HECV policies at 6% policy loan interest rate and raise all others to 8%?" At MONY, after much discussion internally and with several field advisory committees, we finally decided to go with 8% across-the-board starting January 1, 1977. However, the pros and cons behind that decision are quite illuminating. The field advisory committees, as you might expect, were very much in favor of retaining the 6% on HECV plans. The arguments they gave for retaining the 6% are these:

- . The policies are designed and priced for high borrowing so there is no inequity.
- . The 6% interest rate would give us a competitive advantage over our major competitors who are going to 8%.
- . Interest adjusted net costs are not the most important consideration here. More important are the after-tax annual cash outlay and the long term total outlay on a minimum deposit basis. In both these cases, the 6% policy (at least in our company) will outperform the 8% policy.
- . Our merchandising philosophy has been "product tailoring", i.e. a product for each need. An 8% policy loan interest rate on a policy designed for borrowing is not product tailoring.

- . Retention of the 6% policy loan interest rate will get us additional sales.

Many of these arguments, of course, could be used to leave the entire portfolio at 6%. In our Company (I am not sure why), the recommendation to go to 8% on the regular portfolio encountered little resistance except for a few field people who were and continue to be quite vocal. But for HECV plans -- that was a different question.

The counter arguments are many:

- . Nobody else is going to do that.
- . The pricing cannot stand unlimited borrowing.
- . The lower dividends will offset any competitive advantage.
- . We should not want to attract an excessive amount of minimum deposit business.
- . What sense does it make to raise the interest rate on the policies with low utilization rates and retain the 6% on the plans with the highest utilization rate.

However, the two arguments against this proposal which seem to have swayed the decision were:

- . Cash flow problems, and
- . Would we really get "additional" business or would it be substitute business?

Let me discuss the cash flow problem first.

There is always the problem of minimum deposit on HECV plans. Minimum deposit means a small, if any, inflow of premiums to meet cash needs. These calls on cash, as stated earlier, come just when your investment opportunities are best.

Suppose, for example, we have policies outstanding where the policy loan interest rate is 6%, but under conditions at the time that rate does not attract excessive borrowing. Later, interest rates rise to a point where a 6% rate becomes quite attractive. On these policies, we have built a large "bank" of loanable funds at an attractive 6% rate.

By the way, to give you some idea of the amounts we are talking about as of early 1975, we had about \$192 million of HECV loan values of which \$125 million or 65% had already been borrowed. The bank, therefore, of unborrowed funds was at \$67 million.

This bank of unborrowed funds grow quickly in the early years of the contract because these plans do not allow for first year borrowing and the

the four out of seven rule gives a deferred impact to the borrowing problem. This bank of unborrowed funds is like a time bomb ready to go off just as soon as investment opportunities gets promising.

The second question is:

Will we get "additional" sales if HECV plans stay at 6%? The phenomenal growth of HECV sales in the past has not been the result of "additional" business. Instead, these sales have replaced Whole Life sales. There are several pieces of evidence supporting this conclusion.

- . HECV sales have grown from 7% of total sales in 1967 (the earliest year for which I have records) to 15% in 1975. Whole Life has dropped from 40% in 1967 to 30% in 1975.
- . The total number of policies sold was larger in 1967 than in 1975. HECV sales by number more than doubled over this period while Whole Life sales decreases significantly. Whenever a "hot item" comes along, we lose ground in sales of other products.
- . From 1967 to 1975,, new business volume almost doubled. HECV plans had an 18%-a-year increase well ahead of MONY and industry standards. On the other hand, Whole Life expanded with a relatively modest 4% annual growth. The growth rate of the two products combined, 7.5% is predictably about equal to the MONY average.

Further, one would suspect that if we were getting additional sales, our performance relative to industry averages would be good. In fact, from 1967 to 1974, we grew at about 7½% annually while the industry grew at nearly 10% annually. These results support the argument that we will not get "additional" business from HECV at 6% in the future, either.

What are the risks if HECV's share of sales increases at the expense of Whole Life's share?

In order to study the effect on the loan ratio of increasing sales of high early cash value plans, we developed a model assuming that 10%, 20% and 30% of new business, respectively, was on the HECV plan. Ignoring business currently in force, here is what the situation would look like in 20 years:

- . If 10% of New Business is HECV, our ratio of loans outstanding to total cash value would be 26.6%.
- . If 20% of New Business is HECV, the 26.6% jumps to 30.8%, and
- . If 30% of New Business is HECV, the loan ratio becomes 35%.

MR. HARDING: Kim, would you comment on the sales problems?

MR. DICKSON: Agent Education. With respect to agent education, the adoption of multiple loan rates really has not created much of a problem for CML. We took great care to communicate frequently with our field force during the two-year period that our new policy series was being developed. They understand our concern about the problem and most of them recognize that we do not see the 8% rate as a complete solution but rather than an important step toward greater equity for all policyowners. Obviously, agents in New York and the 6% states have mixed feelings - many like the lower loan rate but none like the less attractive dividend scales. They appreciate that legislative change is the route to the policy cost improvement which they desire. There seems to be very little dissatisfaction in the 8% states with the loan rate/dividend trade off.

For companies planning a move to multiple loan rates, I have just a couple suggestions:

- . Make sure the field force understands the current and potential impact of excessive policy loans. This can be put in the context of the implications of artificially low interest rates for cash flow, investment income and ultimately policyowner equity and product pricing.
- . Explain how the more realistic 8% loan rate will help the company counteract the loan problem and in what sense it improves the overall level of policyowner equity.

In our case, this educational process was spearheaded at the top by our Chief Executive Officer and Executive Vice President; the word came through in print and especially in addresses to agent conventions and the like. We especially focused on our Agent and General Agent Advisory Committees which meet twice a year with key Home Office people in Hartford. In our case, this approach was very effective.

Rate Book Proliferation. As regards rate book proliferation, there is no way I know to avoid this problem short of the elimination of all preprinted rate material. The problem is relatively modest for non par products but multiple dividend scales greatly increase the volume of rate material for par products. This would not be too bad in the "good old days" when we had only one rate book, but we have full-sized regular series and pension series books, two "pocket-sized" rate manuals, a split-dollar manual and preprinted ledger manuals; all this adds up to increased paper, storage and handling expenses not to mention an increased opportunity for errors. Many agents operate across state lines (or at least want to be prepared for that eventuality) and want three of most manuals; obviously, some control must be exercised but it is not easy. The net effect of all this for us was about a 50% cost increase overall.

Obviously, the same thing happens every time the dividend scale is increased. If you use loose-leaf manuals, you will want to review your rate book formats with an eye toward segregating all dividend information in order to simplify the replacement of outdated material at the time of a scale change.

Sales Illustrations. With respect to preprinted materials, the situation is similar to that with rate books ... there will be a proliferation and significant cost increase. There may well be a hidden plus here, however, since you will be almost forced to review the value of your existing pieces and may decide that much of it can be eliminated. With more and more of this sort of information available on the computer there may be some real opportunities to streamline.

Computer-prepared ledger statements, split-dollar illustrations, pension proposals and other systems must be reprogrammed to show the appropriate dividend scale (or premium rate for non par.) While there is some additional expense here, depending on how your systems are set up and how simple you make the rate differentials, this should not involve any major additional expense. One question we wrestled with was whether or not to highlight the loan rate as a matter of disclosure and to reduce the chances of an erroneous illustration being prepared for the prospect. As far as I know, only Pennsylvania requires this information at present, although the NAIC model solicitation regulation does mandate it. Much of the negative reaction was out of fear that policy loans might be stimulated as a result of such highlighting. We decided to specify the rate in a footnote which is fairly prominent.

As regards the quality of agent-prepared illustrations, I am not entirely comfortable but this is not new and I do not know how to increase my comfort level. Certainly, there is a somewhat greater chance that agents will inadvertently present incorrect information to their prospects ... the new element here is that correctly prepared figures for the wrong loan interest may be presented. If we do a decent job of educating the field in the first place and develop clear rate sources with the loan rate prominently displayed, then I do not see this as a significant problem.

One thing you can plan on once you announce the intent to go with 8% is that your agents will conduct informal sales campaigns built on the notion that the 6% "bargain" will not be available much longer. My impression is that this worked pretty well in some of our agencies. The only problem is, were the people who bought under these circumstances well served?

MR. HARDING: In the past two years, my company has taken a number of steps toward reducing our policy loan utilization rates. As long as our agents and general agents cooperate in reducing their reliance on financed business, we will take no drastic steps. However, we have a continuing campaign which includes general education, the development of sales techniques which reduce the emphasis upon the policy loan provision, the setting of agency objectives with respect to the reduction of policy loan business, and monitoring of the results. One clear message in this program is that, while the 8% loan rate currently reduces the magnitude of the policy loan problems, it does not modify our objective to reduce utilization rates.

With respect to policyholder considerations, we want to encourage the use of the 8% policy loan provision in as many new sales as possible. We

also want to minimize the occasions upon which there is a choice between policy loan rates. However, we have been very liberal in the past about the state in which policy might be issued. For this reason, we did not become as strict or arbitrary as we might have. Our issue rules will allow the jurisdiction to be determined by either the insured's state of residence or work or the owner's state of residence.

We have been very pleased so far with our sales results. Late last year we introduced our 8% loan rate everywhere we could. We allowed a short transitional period to the end of the calendar year, but thereafter, we have allowed no choice in loan rate within a given jurisdiction. For the first nine months of this year, sales results by premium in jurisdictions with the 8% loan rate are 24% ahead of last year, while the results in the other states are down by about 15%. This would indicate that the buyers have accepted the combination of the higher loan rate with the higher dividend scale quite willingly, and that if anything, border hopping has been toward the 8% jurisdiction, rather than away from it.

We did not like the prospect of the many problems inherent in making the 8% policy loan rate available to all existing policyholders who would qualify for it. We used the fact that our policies do not provide for loans in the first year in developing a transitional rule. We will allow the change to an 8% policy loan rate for any policy still within its first year. Thus far, there has been little exchange activity. For older policies, we are adopting liberal replacement rules in the occasional case where it can be demonstrated that the change to the higher policy loan rate and dividend scale is to the policyholder's benefit. This has not stimulated much activity.

George Hardy, the Northwestern Mutual approach has been significantly different, can you discuss both what you have considered doing and what you are actually doing?

MR. HARDY: Adjusting Dividends to Reflect Borrowing. It is sometimes suggested that the equity aspect of the policy loan problems could be solved by adjusting dividends to reflect borrowing. At Northwestern Mutual we favor such dividend adjustments, as indicated in the paper presented two years ago by our then general counsel before the Legal Section of the American Life Insurance Association. \*

We believe that such adjustments would be permissible under existing law. We are aware that there are a few lawyers who do not agree with us on the substantive legal issues, and we recognize that there are questions involved which have never been resolved in court. However, the principal impediments to such dividend adjustments are in the area of legal procedures, principally the uncertainty as to the appropriate court in which to resolve such questions.

It is necessary to proceed carefully and be concerned about the procedural legal questions. We have therefore decided for the time being not to adjust dividends to reflect borrowing, but we may do so at some time in the future.

\* "Dividends to Policyholders", Donald J. Schuenke, November, 1974

We believe, further, that even if we could make such dividend adjustments, and thereby solve the equity problem, it would still be desirable and in the best interests of our policyholders to use a reasonable rate of interest such as 8% for policy loans. It must be kept in mind that, regardless of dividend adjustments, a low policy loan interest rate is a strong incentive for excessive borrowing.

Amending Existing Policies. As you have surmised, we at Northwestern Mutual believe that the policy loan problem is a complex problem which requires a number of remedial actions. Moving to an 8% maximum on new policies is only one of the several actions we have taken. Another is permitting existing policyholders to amend their policies to adopt an 8% maximum rate and thereby qualify for a more favorable dividend classification in states where such amendments are permitted. So far this amendment program has been very successful.

MR. HARDING: Kim, Do you have any thoughts on this?

MR. DICKSON: Which Rate in Which State. We have had two policy loan interest rates since 1970 (6% everywhere but New York) so we worked this one out in principle some time ago. Obviously, it is a little more complicated now, but we are following the same approach. We key to "law state" which, for an owner-insured, is where the application is signed assuming the applicant has a bona fide business or residence in that state. Otherwise, we go by the state of residence. If the owner is not the insured, we use the address of the owner as given in the application. There is some room for manipulation here but as far as I can tell, this is a minor problem ... generally it is intended to obtain the 8% rate and that does not bother me a whole lot (especially since there is no practical way to stop this completely).

Buyer Acceptance. It is my impression that this is not a big issue. As consumers become more aware of how companies are responding through the pricing mechanism, there may be some dissatisfaction in 5%/6% states ... I see the companies being in a good position to answer any criticism and any such reaction on a broad scale could help move those states to 8%. Some "sophisticated" buyers in the 8% states may object to the higher loan rate, but I do not mind missing a few of those sales. The position taken by "consumerists" on this one may shape the attitudes of informed buyers; it is too early to tell.

As a practical matter, acceptance by the agent is the key as I see it. Without it we have a big problem; with it, I am not too concerned about gaining buyer acceptance. We have already discussed the need to fully educate the agent.

Existing Policyowners. Finally, I would like to comment on the matter of offering the 8% loan rate and dividends to existing policyowners. Any company that adopts 8% for new business will have to wrestle with this one ... especially now that the Northwestern has taken the step. Our field force

has raised the question and our position is that we have no plans to launch such an elective campaign. I see this one as fraught with practical problems such as extremely difficult communications and potential misunderstanding, expense, adverse policyowner reaction if dividends are cut (as theory would suggest) for those who do not elect to switch to 8% and even the possibility that borrowing will be stimulated. So I wish the Northwestern well but we do not plan to follow suit.

Replacements. As far as our agents replacing existing CML business, we have seen very little such activity. This is probably because the price advantage of our 8% is generally not enough to offset the impact of new acquisition costs. In fact, we did see some possibility of replacement activity as a result of introducing the new policy series and we spelled out procedures which should be followed in any such replacement situation. We require a written interest-adjusted comparison on a specified basis to be presented to the Home Office for approval; underwriting requirements may be modified; we do not charge a lapse for incentive compensation purposes and we pay no first-year commission.

As far as the replacement of other company's business, I just do not know. Certainly our 8% pricing could look very attractive as an alternative to the less competitive par and non par business in force today. To the extent that this may happen on the basis of legitimate cost comparisons, it would seem to be in the buyer's interest.

MR. HARDING: Lew do you have any comments?

MR. ROTH: Although the theoretical equity of giving an option to existing policyholders is quite appealing; the practical consideration of how to treat those who do not take the option, which, by the way, become a smaller and smaller group as time goes on, to my mind is more serious. After all, not everyone in the remaining group will have borrowed. The cost of retaining the low interest rate borrowing option which was part of the original contract sale might become unconscionably high.

A much better solution is to establish dividend classes at issue where the dividends are based on actual borrowing rather than on the right to borrow. This could be described at issue and dividends could be illustrated with borrowing patterns assumed.

MR. HARDING: As a prelude to opening this session to discussion, I would like to direct your attention to the fact that Wil Kraegel and Jim Reiskytl of the Northwestern Mutual have written a paper on Policy Loans and Equity which has recently been accepted. Because of the timing, this session was not scheduled to give official recognition to that paper. But we would like to recognize it unofficially. The paper concentrates on the practical aspects. It starts with a good historical background and continues with a description of policy loan trends and uses and with a discussion of the policy loan problem. It describes and evaluates about ten alternative solutions. It then goes into detail on varying dividends by policy loan rate and into detail on direct variation of dividends based on each policy's loan experience. The summary includes a call to action that suggests that

some company should pursue this latter alternative. To open the discussion then, I would like to ask Messrs. Kraegal and Reiskytl the following question: In your paper, you have attempted to establish the propriety of direct adjustment of dividends for each policyholder that is using his policy loan provision. Does the Northwestern Mutual intend to pursue this approach, or are you hoping to get someone else to open the work keg?

MR. JAMES F. REISKYTTL: As George stated earlier, we have no plans to do so at this time. I believe that the whole policy loan question - particularly the surplus distribution - is in the infant stage of development. A few years ago, when we began talking about introducing an 8% policy loan rate, our agents' first reactions were "we understand the need for it, it is a terrific idea, but why doesn't someone else go first." We took the step and went first. Our sales success with it and the reaction of most of the public toward it suggests that this change was a good one. One could have similar views toward direct recognition in the dividends of the contribution made by borrowers and non-borrowers. Whether we will be the first to do this or not, I do not know at this time; it may partially depend on the reactions of our colleagues to our paper. I do know that many of our agents and policyowners who have thought about it would favor and more readily accept this change.

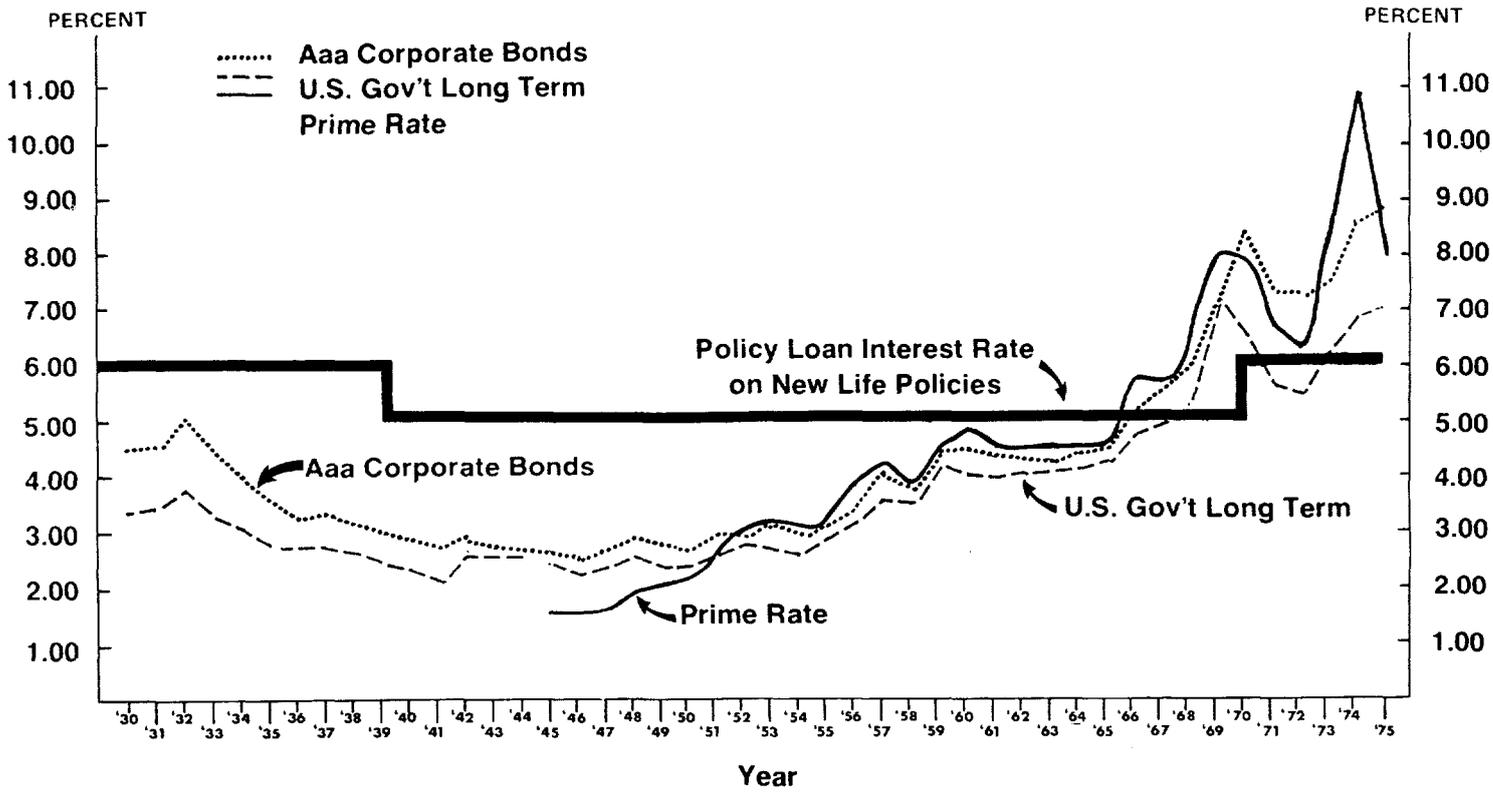
MR. HARDING: While we have you two gentlemen on the griddle, can you give us any data with respect to your offer to old policyholders to exchange their loan provision from 6% to 8%? Also, do you hope to be able to maintain the dividend scale for those who do not exchange?

MR. REISKYTTL: Our program ... (we started out with a series of test samplings before we went nationwide, wherever it is permitted) has been very successful, we believe. We have had about 30% acceptance of the offer, 40% of the non-borrowers and 5% of the borrowers. There has been a minimal increase in borrowing because of the offer. One must interpret the latter, I believe, in terms of the existing economic conditions. This has been a very favorable time to conduct the program. Under adverse conditions, the offer might spur more to borrow. Policyowner reaction has also been very favorable, requiring very little agent activity. We had the University of Wisconsin people conduct a follow up telephone survey to test reaction to the offer. Most policyowners had read it and felt that it was clear and understandable. As to whether we will be able to maintain the scale on the present 5 or 6% block ... our initial internal projections suggest that we will be able to do so, but as Kim and others expressed, it will depend on the actual results. Future dividends depend on changes in the non-loan portfolio rate and the proportion borrowed for each class. As we look down the road for the next two, three, four years, we believe we will be able to maintain the dividend scale for this business.

\* \* \* \* \*

The following tables were taken from a handout made available by Mr. Hardy:

# INTEREST RATES 1930-1975



POLICY LOANS

## DISCUSSION—CONCURRENT SESSIONS

POLICY LOAN INTEREST RATES IN RELATION  
TO OTHER LONG-TERM INTEREST RATES

	<u>Interest Rate on Corporate Bonds</u>	<u>Interest Rates on Mortgages</u>	<u>Interest Rates on Policy Loans</u>	<u>Policy Loan Interest Rates Which Would Maintain Former Relationship*</u>
1957	4.04	5.61	5	5.00
1958	4.44	5.60	5	5.00
1959	5.27	6.23	5	5.75
1960	4.94	6.04	5	5.50
1961	4.58	5.69	5	5.25
1962	4.28	5.53	5	5.00
1963	4.49	5.45	5	5.00
1964	4.49	5.45	5	5.00
1965	4.92	5.62	5	5.25
1966	5.98	6.77	5	6.50
1967	6.93	6.81	5	7.00
1968	7.28	7.50	5	7.50
1969	9.22	8.62	6	9.00
1970	8.13	8.40	6	8.25
1971	7.54	7.50	6	7.50
1972	7.50	7.56	6	7.50
1973	8.09	8.78	6	7.50
1974	9.47	9.51	6	9.50
1975	9.86	9.74	8	9.75

\* The mean of corporate bond and mortgage rates as reported in Wall Street Journal of October 20, 1975, rounded up approximately to nearest quarter.

## POLICY LOANS AS A PERCENT OF ORDINARY RESERVES

U. S. Life Companies  
Ranked by Assets

Mutual Companies (21)	1965	1967	1969	1971	1973	1975	Ratio
	%	%	%	%	%	%	1975/1965
Prudential	7.49	8.27	9.51	10.64	11.09	12.06	1.61
Metropolitan Life	8.34	8.61	9.44	9.99	9.78	9.95	1.19
Equitable	10.35	12.47	16.12	18.19	19.46	21.84	2.11
New York Life	12.12	14.97	19.17	21.88	23.85	26.46	2.18
John Hancock	10.01	9.96	11.68	12.75	13.55	15.09	1.51
Northwestern Mutual	9.55	13.17	19.43	22.05	24.88	27.53	2.88
Massachusetts Mutual	14.83	19.83	26.71	29.94	32.07	34.41	2.32
Mutual of New York	10.01	12.06	15.82	17.86	19.14	21.58	2.16
New England Mutual	12.14	16.20	22.26	25.35	27.95	30.75	2.53
Connecticut Mutual	12.77	17.30	23.43	26.00	27.81	30.39	2.38
Mutual Benefit (NJ)	13.86	19.20	25.66	29.19	31.78	34.26	2.47
Penn Mutual	10.98	13.39	18.07	20.54	22.11	24.53	2.23
Bankers Life - Iowa	8.11	9.62	12.39	14.75	16.25	19.02	2.35
Western & Southern	8.34	8.73	9.38	10.30	10.51	11.43	1.37
National Life - Vermont	18.65	27.71	34.77	38.24	41.33	44.07	2.36
Phoenix Mutual	21.72	25.93	30.67	33.51	35.79	38.20	1.76
State Mutual	12.24	16.02	22.09	26.47	29.53	32.25	2.63
Provident Mutual	10.14	14.04	19.89	23.36	25.73	28.51	2.81
Pacific Mutual	10.32	12.60	16.00	17.95	19.33	21.24	2.06
Guardian Life - NY	12.98	16.62	22.17	24.82	27.15	29.88	2.30
Home Life (NY)	12.28	15.53	21.45	24.95	27.44	30.97	2.52
<u>Stock Companies (8)</u>							
Aetna Life	7.71	9.32	12.45	14.29	15.62	17.93	2.33
Connecticut General	6.14	8.41	12.78	15.62	17.88	20.22	3.29
Travelers	7.69	9.29	12.12	13.81	14.84	16.78	2.18
Teachers Ins. & Annuity	5.44	6.72	9.32	10.88	11.78	13.10	2.41
Lincoln National	8.99	10.58	13.56	14.86	15.72	17.55	1.95
National Life & Accident	10.66	10.90	11.15	11.46	11.04	11.31	1.06
Occidental of California	12.39	14.70	17.12	18.61	19.32	21.05	1.70
Continental Assurance	13.16	16.69	21.06	23.04	24.18	26.24	1.99

GAH: 3/1/76  
Based on data from  
Math & Valuation Division

SOURCE: Annual Statement  
Policy Loans - Assets, page 2, line 5  
Ordinary Life Reserves - Exhibit 8, Section A,  
Column 4 totals (net)

POLICY LOANS

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## DISCUSSION—CONCURRENT SESSIONS

POLICY LOANS AS % OF CASH VALUE  
IN RELATION TO SIZE OF POLICY

Policy Size Loans as % of Cash Value.

Connecticut Mutual, 1973

Up to \$ 10,000	18.7%
\$ 10,000 - \$ 24,999	29.3%
\$ 25,000 - \$ 49,999	42.7%
\$ 50,000 - \$ 99,999	51.9%
\$100,000 and over	63.4%

Equitable - N.Y., 1973

Up to \$ 1,999	6%
\$ 2,000 - \$ 4,999	8%
\$ 5,000 - \$ 9,999	15%
\$10,000 - \$24,999	21%
\$25,000 - \$49,999	27%
\$50,000 and over	41%

Massachusetts Mutual, 1974

Less than \$ 5,000	10.42%
\$ 5,000 to \$ 9,999	18.17%
\$ 10,000 to \$ 24,999	28.76%
\$ 25,000 to \$ 49,999	42.52%
\$ 50,000 to \$ 99,999	51.64%
\$100,000 to \$499,999	60.86%
\$500,000 and over	74.94%

National Life of Vermont, 1974

Less than \$ 5,000	13%
\$ 5,000 to \$ 9,999	22%
\$ 10,000 to \$ 24,999	35%
\$ 25,000 to \$ 49,999	51%
\$ 50,000 to \$ 99,999	62%
\$100,000 to \$499,999	70%
\$500,000 and over	72%

Northwestern Mutual Life, 1973

Up to \$ 2,500	10.3%
\$ 2,500 to \$ 7,500	18.6%
\$ 7,500 to \$ 15,000	27.0%
\$15,000 to \$ 30,000	32.3%
\$30,000 to \$ 70,000	38.8%
\$70,000 to \$200,000	46.4%
Over \$200,000	51.2%