RECORD OF SOCIETY OF ACTUARIES
1979 VOL. 5 NO. 1

THE ADJUSTABLE LIFE DECISIONS

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1. What are the considerations in deciding whether or not to develop an adjustable life insurance product (ALI)?
   a. Does the consumer need it? Does the agent need it? Does the Company need it?
   b. Will it result in new sales or be sold in lieu of conventional products?
   c. Will the public receive better or worse life insurance service through ALI?
   d. Are there alternatives to ALI and, if so, is ALI the way to go?
   e. Does the company have, or can it develop, adequate systems and administrative support?
   f. What are the development costs?
   g. Is ALI profitable and, if so, how does it compare with conventional products?

2. How is Agents Compensation affected by ALI?
   a. New sales
   b. Adjustments
   c. In total

3. General considerations, e.g., data processing, cost indices and sales illustrations, disability benefits, etc.

4. Actuarial considerations, e.g., cash values, reserves, dividends, mortality studies, etc.

MR. SOLOMON GOLDFINGER: My paper entitled "Adjustable Life Expense Allowances under the Commissioners Reserve Valuation Method" describes how net premiums and reserves may be calculated for Adjustable Life Insurance policies under the Commissioners Reserve Valuation Method (CRVM).

Within broad limits, the adjustable life policyholder may change his plan, premium and/or amount of insurance periodically. The reserve at the time of change is applied towards supporting the coverage under the revised policy. If net level reserves were used, the new net premium would be an amount such that the present value, at the time of change, of all future net premiums, plus the reserve then on hand, equals the present value of future benefits. Reserves are then calculated using this net premium.

When CRVM reserves are used, the approach is basically the same, except that an additional expense allowance may be warranted at the time of change. In that case the CRVM net premium is defined so that the present value of future net premiums, plus the reserve then on hand, equals the present value of future benefits, plus the additional expense allowance. The problem of extending CRVM to ALI lies in the definition of this additional CRVM expense allowance at the time of change of the ALI policy.

This approach to CRVM reserves for ALI policies, as well as many other aspects of designing ALI, was described by Walter L. Chapin in his paper "Toward Adjustable Individual Life Policies." Where my paper departs from Chapin's is in the definition of the CRVM expense allowance at the time of change. In certain cases, Chapin's formulas could be interpreted in such a way as to allow a redundant expense allowance at the time of change, and it is my impression that some product designs of ALI in fact use formulas of this sort in calculating CRVM reserves whether this was Chapin's intention or not.

Under this formula, the additional expense allowance would equal the expense allowance for a new issue of a traditional policy for the plan and entire amount of the current status, minus the expense allowance that had been taken in previous statuses.

But under this approach, part of the additional allowance at the time of change results from the fact that the insured has grown older, rather than from any new insurance coverage. But obviously, no additional expense allowance should be permitted just because the insured has aged. Otherwise, there would be additional expense allowances every year without any change in coverage at all, which is certainly not consistent with CRVM.

In other cases, the allowances given by Chapin's formulas at the time of change seem to be less than those which would result from a consistent application of CRVM.

In my paper, the CRVM expense allowance at the time of change is defined to be the CRVM allowance for a new issue of the plan and amount in the new status, at the current attained age, minus the expense allowance for the plan and amount in the previous status, but still calculated at the current attained age (and not the age at the start of the previous status.) It is shown that this approach is quite simple and covers all types of changes. Most important, the paper demonstrates that this definition gives CRVM allowances and reserves which are consistent with those for regular policies. The main demonstration of consistency is that when the change of an ALI policy consists of an increase in the face amount (but no change in plan), then the additional ALI CRVM expense allowance equals that given by CRVM for a new issue of a separate policy, whose coverage equals the increase in face amount.

Allow me to make two observations:

1. Using the definitions given here, there are some types of changes where no additional expense allowance is granted by CRVM, but for which the company nevertheless incurs significant additional expense, including a new first-year commission. Here is an example. Suppose the first status, at issue age 50, is $100,000 of Life Paid-Up at age 65. In the second policy year, the plan changes to Term to age 65 for the same face amount. Since the CRVM allowance for Term to age 65 is less than that already granted for the Life Paid-Up at age 65 coverage, no additional CRVM allowance results, nor is a negative expense allowance required, since the original expenses have been incurred. This is consistent with the recommendations of the Unruh Committee Report on Nonforfeiture Values. Now suppose that in the 10th year, at age 60, it changes back to Life at 65. In this situation, there will be a large increase in premium and the agent undoubtedly feels that he is entitled to a first year commission for at least some of it. But since the plan is still $100,000 of Life at 65, no additional expense allowance is warranted under CRVM, because the full CRVM allowance for $100,000 of Life

at 65 was already granted at the time of original issue and no negative allowances were later charged. Changing to a plan which carries a smaller allowance, and then back to the original plan, should not result in a total expense allowance greater than that permitted if the original, high-allowance plan was maintained throughout. Thus, a successful design of ALI must include provisions for recouping expenses which are incurred by the company but not provided for by CRVM.

2. The approach described in my paper for calculating CRVM reserves for ALI can be applied to the minimum nonforfeiture law as well. In this way, minimum cash values for an ALI policy may be determined in a way that is consistent with traditional policies.

Let me conclude by saying that although the formulas presented in my paper differ from those given by Chapin in his paper, their derivation drew heavily on the basis that he laid down. In that sense, the paper, along with much other ALI development, is indebted to Walter Chapin's work.

MR. J. ROSS HANSON: The elements which affect the ALI decision will, obviously, differ from company to company. The decision -- whether or not to develop an ALI product -- is affected by the Company's operating objective, its distribution system, its current product line, its estimate of ALI's consumer acceptance, its ability to undertake major development and perhaps other factors.

ALI can be perceived as:

(1) a new life insurance product to be added to the Company's existing portfolio of Ordinary life insurance policies, or
(2) a complete portfolio of life insurance policies to be issued in lieu of the existing business, or
(3) a line of Ordinary life insurance to be added to the Company's other product lines.

There would appear to be little reason to issue any Ordinary form other than ALI if certain criteria can be met.

One of these criteria is, of course, satisfactory pricing. Because of the increased maintenance expense it is likely that a book of ALI policies will require higher gross premiums than a comparable book of traditional business. However, as the ALI policies continue in force and are adjusted (in lieu of the current system of modifying insurance programs through surrenders, new issues and changes), it is likely that the total cost to the policyholders for their life insurance benefits will be less than under our current system. This is not an easy comparison to make. It involves many substantial and subjective considerations.

Another criterion is that there must be fair and adequate compensation to the distribution system. While it is not essential to ALI in theory, it is appropriate to the product design that commissions, expressed as a percentage of premiums, be the same for all ALI coverages with some modifications for very high premium forms. The result of this arrangement is that term commissions generally will be higher under ALI than under other term policies. Thus, the agent should be relieved of the embarrassment he now experiences when his interest conflicts with that of the prospect because of higher commission rates on higher premium forms. Furthermore, the trend to lower

shift of preference to term insurance) will be slowed.

On the other hand agents may be hesitant about ALI because they see their income from repeat business being diminished. To reduce this concern, it is necessary to pay first-year commissions on premium increases on adjustment and to pay higher renewal commissions for the regular annual servicing of the policy. The latter can be viewed as prepayment of commissions for new business which may be generated during policy servicing. Also, agents should be pleased by the improved expectation that their clients will be with them for life; it is assumed, of course, that an adjustment of an ALI policy will always compete favorably with the traditional alternatives available to the policyholder.

Another criterion is effective administration of the business. A decision has to made whether to modify the company's existing data processing system so that it can accept ALI business or to create a new system for ALI. Perhaps the most practical approach is to have a separate system for ALI which interfaces with the existing system in specific areas. A set of new programs is required for adjustments to the ALI policy. Adjustments will occur frequently in a policy's history on such occasions as:

(1) request by the policyholder
(2) improvement of the policy by application of a dividend
(3) exercise of a guaranteed insurability option
(4) cost-of-living adjustment, and
(5) reinstatement with a change to the character of the policy

There are certain other activities which are different for ALI such as valuation (statutory or GAAP), calculation of commissions, issue and reissue of policies and preparation of sales illustrations (both before issue and on reissue). The development of a good administrative system for ALI is not inexpensive. Before it makes the ALI decision, a Company must be sure this administrative task can be accomplished for a reasonable cost in reasonable time.

It seems to me to be a matter of intuitive business sense that generally, whenever a product can be improved, it should be improved. The life-cycle policy is an improvement in our product and there may be more efficient designs of it than ALI. But ALI is a good life-cycle design inasmuch as it is such a close cousin to the traditional form. Although there are some wrinkles in the matter of reserves, cash values, premium guarantees, certain policy provisions, GAAP reserves, etc., there is no real difference in the nature of these items between ALI and other forms; and they will all succumb to actuarial ingenuity. The alternative product designs for life-cycle business involve more direct separation of the investment and insurance functions and raise more serious problems in the areas of commissions, taxes, valuation and so on. ALI is the correct first step into the life-cycle business and at the present time appears to be a viable way to improve the Ordinary life insurance product.

MR. STEPHEN H. FRANKEL: In my discussion of Item 1 on the agenda, I shall emphasize negative aspects of ALI.

I would like to focus on five major areas of concern relative to the development of an ALI policy.

1. The development will take a massive amount of resources, primarily in the Data Processing and Actuarial Departments. Remember, a system has to be constructed that will not only issue new policies, but will have the capacity to interact with existing policies when adjustments are made. Preliminary estimates by our Data Processing Department are in the fifty man-year range. A lead time of at least two and more likely three years would be anticipated. We would probably not accept all the specifications of the ALI product currently being marketed, but would want to make many changes of our own. It is quite likely that a smaller company with simpler systems could buy an existing package, use it for the most part unmodified, and integrate the package into its own system much faster and less expensively than the estimates I have quoted. New ways of conducting mortality studies, lapse studies, and expense studies will have to be found. The approach to guarantees, premiums, cash values and dividends will probably not be traditional. Finally, the state approval process could be quite time consuming particularly if your product differs from those being marketed. This means that for a period of two to three years, all other new product implementation as well as many other company projects could come to a halt.

2. I have just briefly described the development requirements. The administrative system may also be more expensive, particularly if two systems -- one for the ALI product and one for traditional products -- must be maintained side by side. Obviously, all these costs have to be borne by someone. This is my second concern -- the net cost of an ALI contract may be quite high even when one is comparing an ALI contract that has been adjusted several times to several traditional type policies, due to the extensive administrative system required.

3. My third concern is understandability. Will ALI be comprehensible to the consumer? Insurance consumerists are very upset because the insurance product appears to be so complicated. In fact, we in the industry even say there is really no good way to make price comparisons. It does not seem likely to me that the average consumer will understand the effect of all these adjustments -- particularly adjustments in which the face amount is increased, but the premium level remains unchanged.

4. My fourth concern is one of too much adjustability; the insured may not use it wisely. Let me cite one example. A policy that allows coverage to be increased with no corresponding increase in premium is like easy credit. This is a "buy now, pay later" plan. Coverage that started out on a permanent basis may move towards term as this happens. This may be expected particularly in later policy years when more permanent coverage is desirable. If the insured does not increase the premium per $1,000 - that is "pay later" - his coverage will expire. Expiration at age 80, for example, could be a traumatic experience to a policyowner if he was not aware of what was going on. Perhaps, an adjustable contract that is restricted to increases in coverage with an associated increase in premium might be the better way to go.

5. The concept of an ALI product replacing an entire portfolio implies broad averaging in the pricing structure, and that is my fifth concern. Such items as term and permanent mortality, or select and ultimate mortality rates would probably have to be averaged. Because of this, the classes will become larger and more people will be on one side of the average than on the other. This could cause pricing problems. For example, will an insured wanting new permanent coverage adjust an existing ALI contract with a mixture of term and

permanent mortality on an ultimate mortality basis, or will he buy a new permanent policy on a select mortality basis?

In view of these concerns, it may be a good idea to look at some alternatives. When considering whether or not to develop an ALI contract, a company must first identify what problems it has that ALI will solve. Possible problems are agent productivity, lack of repeat sales, the effect of inflation, a product line that needs beefing up, or some inefficiency in operations. The next step would be to examine various solutions to the problems. One solution might be ALI. It is important, however, to start with the problems and not ALI as a solution looking for a problem. It is quite possible that many of the objectives of adjustability can be achieved without going through the massive development requirements that I have outlined. Perhaps solutions to many of the problems lie in existing products and procedures, with some modification. Let me cite briefly five examples of alternatives:

(1) How about a master payer account concept? All policies in which a single individual is payer would be in one account. This would consolidate all billing procedures and would provide information in one place that is easily accessible to both the home office and the policyowner.
(2) The consolidated account concept could also be extended to the insured. This would be a system to provide information relative to such items as policy values, beneficiary designation, premium payer and owner. Again, all this information would be maintained in one place so that consolidated reports could easily be provided.
(3) A cost-of-living agreement is a good possibility to help offset the effects of inflation - probably the most serious problem we are facing today. Note that an increase in premium required along with the increase in coverage will help maintain your agents' commission accounts and your company's renewal premium account. Note also that this approach would not allow increase in coverage without a corresponding increase in premium - a concern I voiced earlier about ALI.
(4) Many companies have rigid policy change systems. How about opening up the system? Perhaps, substantial flexibility can be achieved by a liberalization in your own policy change system.
(5) Expand your guaranteed insurability provision. With some innovative thought, this feature could greatly increase repeat sales.

A final comment about these alternatives. Many of the basics for these alternatives are already in place at my company. Accordingly, the cost of developing these may be significantly lower than the cost of developing an ALI contract. This situation may be different in other companies that do not have these building blocks in place.

To summarize: the development of an ALI policy is a massive task - probably the largest your company has ever undertaken. Before deciding in favor of development, it is most important, first, to identify your problems to make sure that ALI is not a solution looking for a problem, and second, to examine all possible solutions. You may find that many workable solutions are much closer to hand than you think.

MR. J. PETER DURAN: In my discussion of Item 1 on the agenda, I shall emphasize positive aspects of ALI.

The consumer of life insurance is varied -- the personal, business and pension markets are perhaps the main markets in which a company might operate. ALI can be made to fit almost any set of needs -- both at point of initial sale and as needs change over the course of time.

From a consumerist point of view, ALI

(1) deemphasizes the dichotomy between term and permanent insurance
(2) will lead to improved policyholder understanding of his insurance portfolio
(3) means greater convenience in maintaining an up-to-date portfolio
(4) will result in an increased emphasis on service by the agent, and
(5) provides a means of protection against rises in the cost-of-living

The life insurance agent selling ALI has the appropriate product for almost any situation he may encounter. While more service is needed for ALI than conventional forms, sales to existing policyholders should be enhanced.

The Company may need ALI for several reasons. Competitive pressures could develop rapidly. An ALI product aggressively marketed in the Individual Policy Pension Trust area for example would be clearly superior to other products being offered in that market. This would create considerable field pressure for ALI. The long lead times necessary for developing an ALI product are an important consideration in this regard.

It could be argued that ALI will lead to additional sales that would not have been made if the product were not available. This would be the result of the introduction of a product suited for markets in which a company had not previously been active. However, I suspect that the types of markets penetrated by a company are more a function of the training and attitude of its field force than the product it offers.

I do believe that repeat sales will be greater under ALI than under conventional policies. Assuming a servicing agent is on the scene, an upward adjustment is the natural course for an ALI policyholder. A large proportion of sales under the cost-of-living option are sales that would probably not be made without ALI. Moreover ALI business should exhibit superior persistency than conventional insurance. One of the keys to making ALI work is service. Since this is so important, the compensation system would be so structured as to encourage an agent to render superior service.

Certainly there are alternatives to ALI, but it seems safe to say that ALI has at the least been shown to be a viable product. In a sense, the alternatives to ALI are even more experimental and hence questionable than ALI itself. For instance, no cost-of-living policy has yet had the market acceptance of Minnesota Mutual's cost-of-living rider attached to ALI policies.

ALI will require the development of extensive administrative and systems support. The cost of developing ALI, however, must be weighed against the possible consequences of not developing ALI.

One of the principle goals of a mutual life insurance company should be to provide the lowest possible cost insurance to its policyholders. As blocks of business mature over time, external circumstances can render their experience inconsistent with that of the open block. For example, a valuation basis such as 2 1/2%, 41 CSO, net level is inefficient in today's tax environ-

ment. Similarly, a 6% policy loan rate policy will show a higher net cost than an 8% policy (provided the dividends distinguish between the two). ALI could provide a means for overcoming these problems. An ALI contract designed so that the cash value/reserve basis and the policy loan interest rate could be changed at time of adjustment would provide a means of insuring that older policyholders who buy more insurance would receive all the benefits that new policyholders do. This is important from a very practical point of view if ALI is to be viable over the long term. A basic premise of ALI is that the vehicle for selling additional insurance is the current contract. If it becomes more attractive to buy a new policy rather than adjust the old one, then ALI has degenerated to what many of its critics claim it to be -- an expensive marketing gimmick.

The profitability of non-par ALI should be comparable to that of conventional policies. Of course, the large capital investment necessary to develop ALI must be recovered. Premium rates at time of adjustment need not be guaranteed in advance, so the company is free to change rate bases when an adjustment is made.

MR. HANSON: A point of information on the cost-of-living rider is that at Minnesota Mutual, eighty percent of cost-of-living options becoming available, that is increases in both sum assured and premium, have been accepted by the policyholders.

MR. FRANKEL: It is not possible to discuss the specific effects that an ALI policy will have on agents' compensation. These are unknown at this time. However, we can assume that no company would develop a new policy with the intention of reducing the fields' annual earnings. What I would like to discuss are four basic questions that must be addressed relative to the development of a commission schedule for ALI.

1. <u>Do we force the agent to increase productivity to maintain his current compensation level?</u> In other words, should we reduce the commission rates on increases via adjustments and anticipate increased productivity. The argument for increased productivity goes like this. It should be easier to make an adjustment to an existing contract than to make a new separate repeat sale. Accordingly, the field should get more adjustments than repeat sales and should also have more time to develop more clients for initial sales.

Note, that if you decide to adopt this increased productivity philosophy, it is extremely important to point out to your field force the advantages of ALI in the sales and service process and the ways in which this product will make their life easier. It would be disastrous to leave the agents with the impression that adjustments are similar to direct writing from the home office and that this is the reason commission rates have been reduced on premium increases.

2. <u>Present compensation is 100% sales oriented - must we change our system so that part of it is service oriented?</u> There are two extremes in this area. At one extreme is the view that no part will be service oriented. First year, renewal and persistency fees will be paid on the first and each subsequent premium increase. At the other extreme is the view that everything after the initial sale of an ALI policy is service. This seems to imply a level commission on all premium increases via adjustments. The middle-of-the-road view, which I think may be the best answer, is that part of the commission be designated as a service fee - even part of the first year

commission. The portion which should be designated as a service fee presumably would be related to the amount of hand-holding the agents will have to do just because this is an ALI policy.

3. What are the mechanics and approach for a workable compensation system? Again, there are two extremes. One is the traditional approach with rates that would vary by factors such as premium per thousand and age. This approach might even go so far as to treat each adjustment in two steps - the first step a policy change and the second step, a new sale. Let me cite an example. Suppose an ALI policyholder has $100,000 of Whole Life coverage on which the annual premium is $2,000. The insured then adjusts this contract so that it is now a $150,000 Life paid-up at age 65 contract with a premium of $3,500. In this traditional approach, the full $1,500 would not be treated as new first year premium. Rather, the policy would first be changed from a $100,000 Whole Life to a $100,000 Life paid-up at age 65 contract according to the normal policy change rules. Let's assume that this produces a premium of $2,400. Then the difference between $3,500 and $2,400 or $1,100 would be treated as the new premium which would be commissionable at first year rates. The remaining $400 premium increase relating to the change of plan would not be commissionable at first year rates. This approach seems extremely complex and would be difficult to communicate to the field force. At the other extreme is the casualty approach which would pay a level commission in each and every year. Although this is extremely simple, I do not believe that our life insurance agency force could survive without high first year commissions. Additionally, the level commission would not put enough emphasis on the initial sale. The middle ground is to pay the same scale regardless of premium per thousand or age, with some modification for extremes such as single premium life. The scale would have a higher first year followed by a certain number of renewals and then service fees. This approach seems to be the only one that would be understandable to the agents, and would allow enough compensation in the first year. However, the drawback is that it promotes an impression on the part of the policyholder that he has to pay the same cost per dollar of premium regardless of how high the savings element is.

4. Are we going to have two separate commission systems at the same time? Essentially, there are two concerns in this area. The first is the inconsistency which may result from having traditional and adjustable systems side by side. The payment of a higher commission in one system certainly could be a factor in an agent's choice of plan. The second concern is in the data processing area. A company should consider the complexity of having two systems at the same time as well as the possibility of trying to integrate them to the maximum extent possible.

To summarize then, the selection of a commission approach for an ALI contract may be the most important factor in its development. Before selecting an approach, much consideration must be given to the four questions presented above. Above all, you must convince the field that the ALI policy will be better for both the policyowner and the agent. It should better serve the needs of policyowners than traditional contracts, and it should equal or improve the current earning capacity of agents. The field should not be left with the impression that better value is being provided solely at their expense through reduction in commissions.

MR. DURAN: I am now going to discuss four general topics which should be considered by companies in relation to ALI.

1. Cost Indices/Sales Illustrations: The actual computation of a cost comparison index at the time of initial sale of an ALI policy presents no particular complication provided a level benefit/level premium is being illustrated. However, the use of such an index is questionable since cost comparison indices are meant to compare similar plans of insurance. The index does not reflect the adjustability provision or the cost-of-living feature with its guarantee of additional insurance not subject to underwriting.

An illustration of the policy as it would operate under the cost-of-living provision is certainly a useful sales tool. The program would have to be able to accept an assumed inflation rate as input. The proper definition of a cost index is not clear in this case. Even if a definition could be agreed upon, it would probably be useful only for comparisons with other ALI or indexed policies.

Sales illustrations become even more complex when they are aimed at the policyholder who is considering adjusting his policy. They require a tie-in to the master record system so that the correct current status of the policy can be determined. Sophisticated use of the adjustment program to project the policy forward under various scenarios will be desirable. Such sophistication can hardly be considered a frill. Rather, I think it is an essential part of a viable marketing strategy. Moreover this tremendous flexibility for sales illustrations on inforce policies provides one of the marketing strengths of ALI. Any insurance program concocted by a competitor can be duplicated with ALI. The sales illustration process should clearly reveal cost differentials on a year by year basis.

At this point the notion of a cost index has become extremely complicated indeed. Consider, for example, a policyholder who has had $50,000 of straight life for ten years and is considering an adjustment. It would seem clear that his course of action must be governed by an evaluation of need rather than a comparison of cost indices.

2. Data Processing: The basic decision that must be made in the data processing area is whether a separate system is to be developed for issuing and maintaining ALI business. The alternative is to modify the existing system. The decision as to which course to pursue will, of course, be based on an analysis of costs.

The main areas of concern are:

(1) new issues require new information on the policy specifications page and a special display of cash and nonforfeiture values;
(2) an adjustment program is needed to adjust the policy;
(3) a history of adjustments is needed to supply information for future use, to provide an audit process (is the current policy derived from changes made in accordance with the policy provisions, rates, etc?) and for use in calculating commissions and dividends;
(4) commissionable premium and the applicable rates may be determined differently from other business. The possibility that several agents may be receiving commissions on the same policy will necessitate complicated rules for determining each agent's interest in the premium;

(5) the ALI system must tie into existing on-line systems such as an agency terminal system, and
(6) accounting and reporting of management information may involve new considerations.

3. Reinsurance: Reinsurance of ALI presents many unique problems. Among these are the following:

(1) Reinsurance agreements typically provide that the ceding company shall pay an annual premium to the reinsurer. Rules must be developed for handling off-anniversary changes in premium level.
(2) It may be more difficult to introduce a new (presumably less expensive) reinsurer on an adjustment than if a new policy had been taken out, particularly if a plan change is involved. Rules covering downward adjustments will also have to be developed.
(3) The recapture provision will need to be modified for cases where adjustments have occurred.
(4) Many companies reinsure their permanent plans on a yearly renewable term basis while reinsuring their term plans on a coinsurance basis. Clearly, such an approach is not feasible in the case of ALI.
(5) The expense and commission allowance structure for coinsurance and modified coinsurance will of necessity reflect some of the complexity of the basic product.

4. Disability Benefits: The waiver-of-premium benefit presents some difficulties. Perhaps these can be expressed most easily in a set of questions:

(1) What should be the benefit on term forms?
(2) How is the gross premium figured for the various plans available?
(3) How is waiver-of-premium handled if a rating is necessary upon adjustment?
(4) Is it possible to waive only a portion of the premium if waiver is declined on some future adjustment involving an increase in the gross premium?
(5) If a disability monthly income benefit is included, how is it adjusted? Should the same principles apply as with the ALI itself (it is probably not fair, for example, to start over with respect to this benefit whenever there is an adjustment -- that is, the reserve should be brought forward as it is with the basic ALI policy).

One waiver benefit that is currently used by the companies selling ALI is to adjust the policy upon disability to the whole life form and to waive the new premium. This is a difficult waiver-of-premium premium to calculate since the whole life premium depends on the history prior to the adjustment at the time of disability.

MR. GOLDFINGER: For the actuary, designing and pricing an ALI program is either a dream come true or a terrible nightmare. I would like to focus on what I consider to be a few key problem areas besides reserves and cash values. Each of these is an area in which the actuary must make a careful decision if his company's ALI program is to be successful.

1. Cash Value Basis, Policy Loan Rate and Guarantees: One of the primary advantages claimed for ALI is the ability to "lock in" the policyholder. That is, it is assumed that when the insured wishes to obtain additional

insurance it will be more convenient, and perhaps cheaper, to simply increase the face amount of his ALI policy, rather than to go out and buy a totally new policy. However, I have serious doubts as to whether the premium and reserve basis of an ALI policy issued in 1979 will be competitive with those of new issues in 1999. Or, rather than looking for 20 years into the future, let's look at the situation right now for a woman who bought an ALI policy in 1977 with reserves and cash values on a 3-year setback basis. Another company is now offering a policy on a 6-year setback basis and she is interested in the net payments available as a result of the new basis. How could she obtain the same result with her inforce ALI policy?

A solution suggested is simply to change the reserve basis as well as other features of the current ALI policy over time. From what I can see, doing this would seem to involve substantial administrative difficulty, along with serious legal questions. Does the company really want one year of ALI issues to evolve into several blocks, each on a different policy basis? Remember that if the policyholder doesn't change his policy it ought to remain on the original basis. Furthermore, what right does the company have to unilaterally change the cash value basis or policy loan rate specified in the contract even at the time of change?

2. Dividends: For a participating policy, the element which determines the ultimate cost of ALI to the policyholder, as well as its profitability or surplus contribution to the company, is the dividend scale. The question here is "What constitutes a dividend class?"

It is clear that two ALI policies which have had different plan and amount histories will produce different levels of expenses, interest earnings, and perhaps underwriting histories. To what degree should the actual plan history of an ALI policy be reflected in the dividends for that policy?

An individual policy is typically charged with some of the expenses at the time of change through the Commissioners Reserve Valuation Method (CRVM) expense allowance applied against the reserve or cash values. However, just as for new issues of regular policies, the expense allowance mandated by CRVM will correspond to the actual expense incurred in changing the policy only by coincidence. Furthermore, for many changes, CRVM provides no statutory expense allowance at all. If the statutory expense allowance is insufficient, who should bear the remaining cost?

One view is that it is only equitable that all of a policy's change expenses be allocated directly to the policy that incurred them. The alternative approach is that the cost of the change should be spread over all ALI policyholders, since they all had the option of exercising the change. If this second approach is taken, then increasing the ALI face amount should be much cheaper than purchasing a new policy, at the time of increase. But the policyholder, along with all other ALI policyholders, will eventually have to make up the difference.

3. Asset Shares: The problem of asset shares for ALI is again linked to the question of subdividing the different ALI policies. If the approach that views every ALI policy as part of the same ALI class, whether a change has been made or not, is carried over into asset shares, the actuary should recognize the fact that the asset share is probably not doing a good job of reflecting the actual experience of his company's ALI policies. First, he will find that the usual notions of lapse, select mortality, maintenance

expenses and the like begin to lose their meaning when applied to the ALI "class." Is reduction of premium a partial lapse? What about reduction of face amount, or reduction of the coverage period?

Once questions such as these are answered, the next problem is to set the asset share assumptions. It is a practical impossibility to build an asset share program that will reflect all possible ALI activity, because there are literally an infinite number of possibilities. Instead, the actuary will most likely have to develop a system of asset shares and dividends that uses broad assumptions as to average premium, average face amount, average mortality, and so on. But moving in this direction would appear to be inconsistent with the trend of using more sophisticated asset share methods to make sure that each subclass of policyholders is being equitably treated.

On the other hand, if the actuary opts for very refined dividend and asset share classes, the information stored on the master record will have to be very extensive, leading to higher developmental and administrative costs. Taken to its logical conclusion, this approach would result in the calculation of dividends on-line for each policy separately.

It is conceivable that the actuary may suppose that change activity (other than increases in face amount) will be so small that it can be safely ignored at the initial stage of product development. If this is true, then one must question the need for ALI at all. There are other ways of providing for increases in face amount that are a lot cheaper to develop than is ALI.

In conclusion, let me again say that I do not mean to give the impression that the problems I've mentioned are insolvable. The fact that two major companies have developed and marketed ALI for a few years and others are no doubt well on the way to doing so, shows that good, sound approaches to the actuarial problems inherent in ALI must exist. The challenge for the actuary and the potential for fulfillment, is in finding the most workable approach for his company.

MR. HANSON: It is most important to keep in mind that the ALI policy is a new product. It is not a bundle of life insurance policies encompassed in one policy form. It is a new life insurance contract and many of the things that we have to think about -- such as compensation, adjustments and premium guarantees -- must be thought of in the light of the fact that the ALI policy is a continuing agreement made with the policyholder at the time of issue. If a life insurance company decides to issue an Adjustable Life Insurance product, it would be best if this were used as a generic name. In other words, the XYZ company will issue its ALI policy. The consumers must not be confused by our introducing ALI policies to them under different names.

MR. HAROLD G. INGRAHAM, JR.: ALI in some form for the Individual Policy Pension Trust (IPPT) market seems to offer an appealing way to finally solve the problem of small policy "add-ons" that has long been the bane of the IPPT funding approach. This is of particular significance to New England Life, which currently has about $3.3 billion of IPPT in-force and which writes well over $500 million of new pension trust insurance each year -- 75% of it business in existing trusts and most of that "add-on" coverage for existing participants.

However, discussions of ALI with some of our agents specializing in IPPT sales have revealed a rather deep concern that ALI not serve as a disguised instrument to sell essentially term insurance in conjunction with an auxiliary fund. In other words, they specifically want a product which accommodates increases in permanent coverage -- but they also strongly state that they want a product that initially is and later remains whole life in structure.

On a different subject, over the past two years I have read and heard a number of ALI discussions stressing the rather awesome start-up cost which must inevitably be reflected in the pricing of ALI. I don't believe that ALI necessarily has to cost more than comparable conventional products because it can be legitimately argued that the ultimate ALI administrative costs may well be lower due to the efficiencies achieved by computer-based servicing. If this thesis holds, then I submit that it is reasonable for a company to initially absorb ALI development costs out of the portion of its surplus (which I will define as "capital investment" surplus) not needed to meet its perceived adverse experience needs -- and then amortize this borrowed surplus over some reasonable period, so as not to produce an unnecessary pricing bias between ALI and comparable conventional products. It would be a matter of management philosophy as to whether such amortization should be borne entirely by the ALI block as it emerged, or whether a company might actually spread it over all individual insurance lines, on the grounds that the capability to competitively market ALI was in the interest of continued company vitality.

MR. BRUCE E. NICKERSON: The discussion today has repeatedly emphasized the agent's role in servicing the ALI policyholder. This would seem to imply that ALI should be considered as a product only by a company which is not merely licensed nationwide but which in fact has a national "presence". Otherwise, a massive "orphaned policyholder" problem would arise as policyholders move out of the insurer's territory and the necessary agent service could no longer be provided.

I also note that the ALI policies developed so far seem to have been developed by mutual companies. I have difficulty, I admit, in envisioning ALI on a non-par basis. I would like to know, however, whether anyone has thought about how to handle GAAP reporting if a stock company were to sell participating ALI.

MR. HANSON: On the GAAP question I do not know of any approach which has been made public. I do not foresee any important GAAP problem. When there is an adjustment, we will continue to use the GAAP assumptions which are appropriate at the time of adjustment. With respect to a policy which has been in force, for say, X years under certain GAAP assumptions, those assumptions will be modified at the time of adjustment as they would be for a new issue.

MR. ZAFAR RASHID: I would disagree with the statement that ALI is a new policy. It's more than a new policy, it's a new way of life and I think it would be better for all the companies that are considering ALI to recognize that.

Mr. Frankel mentioned the success that Minnesota Mutual and Bankers have had with their cost-of-living rider, but we know there have been a lot of cost-of-living riders on the market that have been unsuccessful. I would conclude that the success of ALI is going to depend on how well the policy is administered, sold, serviced after the sale, etc. This leads me to wonder whether in Mr. Frankel's estimate of 50 man years development cost for ALI there was an allowance for the cost of retraining the agency force to sell and service this business in a new way -- a way that they have not been used to. My feeling is that 50 man years might only be a small tail on a big expensive dog.

MR. HANSON: I don't agree with the estimate of 50 man years. To my mind that is an estimate for a major mutual life insurance company wanting to modify its existing system so that they can accept ALI. If a company wants to issue ALI and have an issue system and a maintenance system that will take care of only that, my estimate is only a fraction of 50 man years.

MR. FRANKEL: In answer to Mr. Rashid's comments, the 50 man years is only for the initial design. There is no allowance there for the kind of tooling up he described. In a large company, the type which I represent, it will take this much time even if ALI were introduced as a separate system because we have developed quite an extensive data processing system already for issuing contracts, for maintaining contracts, for providing information, for billing, for paying commissions, etc. Whatever we have in the way of maintenance and service relative to our traditional contracts with all the complexities involved we would certainly want to have available for an ALI contract.

MR. RASHID: The point I was trying to make - whether it's 50 man years or 20 man years, this is only a fraction of the real cost of ALI, which is the cost of changing our way of selling and servicing insurance. Detroit changes their models periodically, but before they change their models and retool all their plants to produce new models, they do a lot of soul-searching on why they need the new models. We ought to do the same.

MR. MICHAEL GALLO:* I would like to ask Mr. Goldfinger if he has put any thought to the question of applying his formulae to minimum nonforfeiture values?

MR. GOLDFINGER: I think I mentioned in the presentation of the paper that I haven't worked it out in detail; but I think the basic approach to an increase could apply just as well to the minimum nonforfeiture law. I understand that Mr. Hanson has done some work which is consistent with that approach.

MR. HANSON: ALI policies being issued at the present time provide for cash values equal to the CRVM terminal reserves held under the policies. I would like to discuss some of the considerations involved in the calculation of minimum cash values for ALI consistent with the Standard Nonforfeiture Law (the law).

The law prescribes the minimum cash values which can be provided under an Ordinary life insurance policy. It is presumed that the amount of insurance

*Mr. Gallo, not a member of the Society, is an assistant actuary with New York Life Insurance Company of New York, New York.

and the gross premium are known for each policy year that the policy is to be in force. Since, however, these parameters are not known at issue for an ALI policy, it is not possible to calculate minimum values strictly in accordance with the prospective procedure specified in the law for other forms. The best that can be done is to apply the principles inherent in the law.

In its report dated January, 1976, the Special Committee on Valuation and Nonforfeiture Laws made some reference, on Pages 32 to 37, to the difficulties under so-called open policies. The Committee was correct in recalling that there had been much criticism of the law's inflexibilities in the "open policy" area. I was among those critics and, as a panel member in the Concurrent discussion of the subject at the Chicago meeting in 1972, I recommended that we consider repeal of the law for all new issues and establishment in its place of a standard benefit disclosure law. This eminently sound advice was not heeded, however, and the Special Committee did not recommend any method to alleviate the problem with which we are now faced.

Mr. Goldfinger in his paper makes reference to these matters and specifies criteria for reserves which can also be applied to minimum cash values.

I have calculated minimum cash values subject to the following rules and limits, the first three of which are consistent with Mr. Goldfinger's reasoning and the last two of which seem to me to be consistent with the intention of the law:

(1) During the first status (that is, from issue until the policy is adjusted for the first time), cash values are exactly equal to the minimum values for a policy issued at the same age for the same amount and on the same plan as the ALI policy is issued. Term policies under which cash values are not required by the law have values under this method, however.

(2) The method of calculating the expense allowance is such that this allowance would not be increased merely by recalculating it at a later attained age.

(3) If an adjustment is made to the face amount and premium but the plan remains unchanged, the expense allowance is increased exactly as if an additional policy had been issued at the attained age for the incremental amount and premium.

(4) The contractual cash value at the time of adjustment may not be decreased because of the expense allowance determined at the time of the adjustment.

(5) At the time of adjustment from one status to the next, the amount which enters the calculation as the ending cash value is the theoretical cash value if that is less than the contractual cash value. (This might occur, for example, when the minimum theoretical value is negative but the contractual value is zero, as the law requires.)

I do not think that a full expense allowance should be permitted at the time of adjustment. Therefore, I have calculated it as being equal to the excess, if any, of (1) over (2) where:

(1) is the full expense allowance permitted under the law for a new policy at the attained age on the new plan for the new amount and for the new gross premium, and
(2) is the expense allowance calculated assuming the current attained age and the same insurance amount and plan as for the most recent status having such an excess.

This procedure has produced the following results:

(1) The cash value immediately after adjustment is exactly the same as immediately before adjustment.
(2) Any negative influence which the new expense allowance might have is set to zero just as it is for new issues (no negative cash values).
(3) Cash values may decrease after adjustment since the old cash value is treated as a net single premium at the time of adjustment and is distributed over the remaining benefit period.

I believe these principles are fair and follow the intent of the law.

An interesting sidelight is that when ALI is issued on the basis of an extra table rating, all functions would be calculated on that rating. Thus, reserves would be held and cash values would be calculated on the substandard mortality basis.

Another approach to the matter of cash values which I have considered is to treat the ending cash value on the old status as a gross single premium at the time of status change and to calculate values according to the law. While this would appear to follow the letter of the law, it does produce certain results which may be difficult to explain as a practical matter. Furthermore, the expense allowances thus permitted are probably excessive and contrary to the life-cycle concept embodied in the adjustable life policy.