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REAR END LOADED PRODUCTS

Moderator: WILLIAM J. SCHNAER. Panelists: DENNIS L. CARR, HAROLD G. INGRAHAM, JR., GREGORY J. KAISER. Recorder: JAMES M. GLICKMAN

MR. WILLIAM J. SCHNAER: First to speak will be Mr. Harold Ingraham, Senior VP and Chief Actuary of New England Mutual Life Assurance Company. After him we'll have a question and answer period, and then Mr. Greg Kaiser, Product Actuary with North American Life Insurance Company here in Toronto, will be speaking on the Canadian viewpoint of universal life with particular emphasis on rear end loaded versions. Finally, after a question and answer period, Mr. Dennis Carr, Vice President with Tillinghast, Nelson and Warren will talk about general considerations for the Pricing or Valuation Actuary in dealing with rear end loaded products.

Many of you probably recall the lively debate ten months ago on the pages of the "National Underwriter" concerning the relative merits of rear end loaded products. To start off, Harold will be summarizing that debate and giving his own comments.

MR. HAROLD INGRAHAM: As Bill mentioned, there was a brisk discussion of the relative merits of the front ended loaded and rear end loaded universal life product designs in the "National Underwriter" last December which continued in a number of subsequent issues for several months.

In the typical front end loaded design, expense charges are imposed at issue, or "up front". The charges reflect first year sales and issue expenses. These are disclosed to the policyholder by means of a computer summary, usually called the Annual Report. There is one set of cash values computed each policy year as the accumulation at interest of the premium remaining after deducting expenses and mortality charges.

This one set of cash values can be said to be very much like the policy values printed in traditional life insurance contracts for many years. A cash value develops, usually in the first, second, or third policy year. The usual first year sales and issue expenses are indirectly disclosed when the policyholder looks at the cash values printed in traditional permanent policies.

On the other hand, rear end loaded products have two sets of values. The first set is an accumulation value that is defined as most of the premiums, less mortality charges, accumulated at a current rate of interest. The second set of values is the cash surrender value that will actually be paid to a policyholder who terminates the policy. The difference between the accumulation value and the cash surrender value is the surrender charge or, perhaps, more euphemistically, the rear end load. The surrender charge typically decreases and, over time, say ten or twenty years, goes to zero, and the two sets of values are the same thereafter.

Tom Eason, of Union Central, took a strong stand expressing several concerns with respect to rear end loaded universal life contracts in his

National Underwriter article last December which kicked off the discussion on the subject. His main points were:

- 1.) The accumulation values are a fiction. A fundamental marketing problem is the difficulty of achieving adequate disclosure at the point of sale. The attractive (and fictitious) accumulation values will inevitably be highlighted in sales presentations. This amounts to emphasizing high values that are meaningless since they never can be received by the policyholder.
- 2.) Agents and buyers are unable to judge the possibility of adverse consequences due to early surrender. No buyer can be certain that cash will not be needed in the surrender charge years. At such a time, the surrender charge glossed over at the point of sale will loom unexpectedly large.
- 3.) If the surrender charge is set high enough, the cash surrender value will not return the "equitable value" that has built up in the policy. The company then makes a profit on surrender. The actuary will be under pressure to use this profit to increase the cash surrender values in later years. The ability to pay the cash surrender value at, say, age 65 becomes dependent, in part, on the occurrence of enough surrenders in the early years. The policyholder must rely on benefits from a type of tontine.
- 4.) Misleading advertising occurs in some of the rear end loaded policies available when they are described as no load life insurance. One of the earliest companies marketing the rear end loaded universal life, advertised that there is "no direct expense charged to the persistent policyholder". On its face, this is an outrageous statement designed to mislead the potential buyer.

Tom also urged the industry in its regard, to heed the lessons learned with respect to deposit term. That product, he noted, was touted as encouraging policyholders to continue paying premiums and the substantial surrender charges in the early years were deemphasized at the point of sale. The results? High lapses, misunderstanding and broken promises.

Eason also argued that it is incorrect to assert that rear end loaded universal life is justified by comparison with annuity products that employ surrender charges. He stated that annuity surrender charges seldom, if ever, generate profits on early surrender, and there is little or no relationship to the larger surrender charges common to rear end loaded universal life products.

A number of defenders of the rear end loaded design stated their views in subsequent articles. Their major points were:

- 1.) Rear end loaded universal life contracts are much more similar to traditional life insurance contracts than were the earlier front end loaded versions. The traditional life insurance contract includes a surrender charge which reduces over time. Although such products hide the surrender charge feature, any actuary knows that's exactly how cash values have been calculated in the past. Different whole life policy forms typically have different cash values in the first twenty years because they have different sur-

render charges. But, they can typically reach the same twentieth year cash values. So, a policyholder who persists to the twentieth year is unaffected, except for reduced earlier loan values, by the surrender charges in the first twenty years. In identical fashion, they went on to say, the policyholder with a rear end loaded universal life contract who persists to the end of the surrender charge period doesn't suffer from the surrender charges. Actually, the front end loaded contract is the unusual and less competitive form because persisting policyholders have to bear some of the costs associated with policyholders who terminate.

- 2.) The surrender charge wears off over time. Thus, the accumulation value that exists at any point in time can be directly linked to the ultimate cash value. Interest that is credited to the policy is credited to the accumulation value. Monthly deductions are applied to the net amount of risk, which is defined as the death benefit less the accumulation value. Hence, the growth of the policy, including the cash surrender value, is tied to the accumulation value that exists at any given point in time. In recognition of these characteristics of the accumulation value, I've heard that some accounting firms are allowing their clients to show the accumulation value rather than the surrender value as an asset on the balance sheets. However, that's not the position of New England Life's outside auditor.
- 3.) Many contracts allow the death benefits to include a return of the accumulation value in addition to the stipulated face amount. Try to convince a beneficiary that the additional benefit is a "complete fiction."
- 4.) Some companies permit the accumulation value to be used to fund extended term insurance without any surrender charge being applied. This obviously is a real value to a policyholder, in some instances making the difference between a potential death claim being honored or not. Some companies also allow surrender charges to be waived under some circumstances upon annuitization. This is an attractive retirement feature allowing an increased monthly benefit to be provided, as opposed to a benefit purchased only by the cash surrender value.
- 5.) Rear end loading charges serve as a powerful disincentive to disintermediation as interest rates vary in the future. It is to the policyholder's interest that the insurance company invest in as long-term investments as possible, so that the company can declare as high a rate as possible for the policyholders. Sound judgment must be used in determining the investment policy. Obviously, the larger the surrender charge, the less likely the policyholder is to surrender as interest rates rise.
- 6.) The reducing surrender charge provides a strong disincentive to surrender. In effect, the annual reductions in the surrender charge provide extra "interest" on the policyholder's cash value, making continuation of the contract a better deal in comparison to potentially increased interest rates available elsewhere in the financial environment.

- 7.) It is not fair to compare rear end loaded contracts with deposit term products. As opposed to rear end loaded universal life contracts, deposit term has suffered from poor design, improper sales practices and an inability to adjust to volatile financial changes in the environment.
- 8.) The main purpose of the surrender charges is to cover unamortized issue and underwriting expenses, and front ended field compensation. For policies that don't lapse, these expenses are recovered through margins in mortality charges and interest earnings. A graded surrender charge does a much better job of placing expense charges where they belong--higher for early surrenders, lower or zero for long-term policyholders.

In reviewing what he referred to as "the crossfire of charges and counter-charges" on this subject, Peter Chapman, a consulting actuary, posed three questions:

- 1.) Is it really more equitable to recover the high percentage of acquisition costs from early terminators? The rear end loaded advocates implicitly assume it to be a more equitable approach. Peter's comment was "while it may make economical marketing sense for the insurer to lean on the early terminators, it would be farfetched to describe this process as contributing to equity."
- 2.) Why not eliminate all possibility of misrepresentation by not illustrating any values that cannot be obtained by loan or surrender. What purpose do such values serve? Are they not subject to misrepresentation, no matter how clearly they are labeled?

The best answer to that question is to point out that the accumulation value can be directly linked to the ultimate cash value and from a corporation's accounting standpoint using a "going concern" philosophy, it's proper to indicate the policy asset as the accumulation value rather than the surrender value. This is particularly true if the insurance company also makes available a business exchange rider in conjunction with a rear end loaded contract for the business insurance case.

- 3.) On what persistency assumption are the surrender charges calculated? Does anyone have any data at all to indicate the comparative surrender rates of rear end loaded universal life contracts versus front end contracts? Do they have any data on universal life versus traditional whole life, or when surrender rates are likely to return to the levels that preceded double-digit inflation and large scale replacements?

Peter's point here was that in the absence of such data, how can an early terminator be sure that he or she has not been overcharged? Or, how can the persisting policyholder be sure that the long-term values will not be reduced because insufficient charges were collected from early terminators because there turned out later to be fewer of the early terminators than had been anticipated.

From my own standpoint on this subject, I will make the following points:

- 1.) I disagree with the assertions that rear end loaded universal life policies are inherently deceptive. It is possible for a company's policy illustrations and disclosure statements to clearly identify both the accumulation value and the cash surrender value side-by-side, so there can be no misunderstanding on the part of the policyholder.

State insurance department regulations correctly and directly mandate illustrations of both sets of values when the accumulation values are shown. The rear end loaded universal life contract would not be acceptable for approval otherwise. The typical contract specifically states surrender charges, with the annual report sent to the policyholder clearly making the distinction between accumulated and cash values.

- 2.) The magnitude of the surrender charge at each duration in the rear end loaded universal life contract should be an amount necessary to reimburse the company for unamortized selling, selection and issue costs. It is still an individual company prerogative to establish what it feels should be the equitable value to return on surrender, as long as minimum nonforfeiture requirements are met. If surrender charges appear to be excessive, competitive prices will serve as a countervailing force.
- 3.) The analogy of rear end loaded universal life to rear end loaded annuities is somewhat flimsy and contrived because surrender charges on the annuities can be substantial in relative terms, in that they're generally a declining percentage of the total fund which is accumulated. However, surrender charges in rear end load universal life contracts are generally expressed as percentages of first year required premium (usually the target premiums) where such percentages decline each year. Hence, they can more aptly be described as modest.

Rear end loaded annuities pose serious long-term profit gambles for life companies, in that the major profit source, mortality, is not available until the accumulated value has been annuitized. Very little profit is available for an interest spread during the accumulation period. Rear end loaded universal life policies do, however, provide a mortality profit source throughout the entire contract lifetime. If adequate pricing assumptions have been made, surrender charges should reflect no different a profit source than their equivalent corresponding front end loaded universal life products.

- 4.) I share Tom Eason's concern regarding the potential misrepresentation of these contracts, and I would certainly agree that careful thought is necessary in the pricing and design of such contracts. However, through normal application of sound professional work and adherence to the general principles of the Model Unfair Trade Practices Act, a rear end loaded contract that is sound from the company's, the agent's and the consumer's standpoint can be created and marketed. Rear end loaded universal life contracts are just one in a stream of innovative products evolving rapidly in the

marketplace. Other products are sure to follow. Distortion, misrepresentation and abuse can occur with any product--traditional life, annuity, universal life. It's our responsibility as actuaries and as representatives in company management to protect the industry's integrity and not allow this to happen.

MR. SCHNAER: Thank you Harold. Next up is Greg Kaiser from North American Life Insurance Company who will talk to us about the Canadian viewpoint on rear end loads on life insurance and annuity products.

MR. GREGORY KAISER: I will discuss the topic of rear end charges as they apply in the Canadian marketplace. The Canadian practices are interesting because in Canada we do not have the restrictions on product design or cash value levels that are in effect in the United States. For example, we do not have Minimum Nonforfeiture Laws in Canada.

I will first of all briefly compare Canadian and United States laws and regulations as they apply to product design and cash value structure. Secondly, I will outline items that should be considered when deciding whether or not to have rear end charges. Finally, I will review Canadian products where rear end charges are considered.

As I mentioned, we do not have Minimum Nonforfeiture Laws in Canada. This means that there is not a minimal amount that we have to pay on surrender of a life insurance or annuity contract. In Canada, we can make asset depreciation charges, also referred to as market value adjustments, if provided for by the contract.

In Canada, there is also no restriction as to the investment options offered to policyholders on universal life plans, such as there are in the United States, as a result of the SEC regulations. This means that guaranteed interest accounts can be offered on Canadian universal life plans where each premium is guaranteed an interest rate for a specific period. The very nature of this type of investment option leads to asset depreciation charges being applicable on surrender of such contracts.

The third area where there are differences between Canada and the United States is in the policy wording. In Canada, we do not have to have our policy forms approved in the manner that they must be approved in the United States. Although this does not have a direct affect on our topic of rear end charges, it does give us flexibility in plan design and policy wording. This flexibility is very helpful, for example, when adding a market value adjustment provision to the contract.

The absence of these laws and regulations in Canada leads to interesting differences in product design and in rear end charges in particular. Rear end charges can be used to cover the cost of the following three items:

- 1.) Asset depreciation;
- 2.) Unamortized expenses; and,
- 3.) Administration costs of the surrender.

These items can also be covered, to some extent, by front end charges or pricing margins, although the asset depreciation risk can only be properly covered by a direct charge to the policyholder on termination.

When deciding whether or not to have a rear end charge, it is necessary to consider the following four items:

- 1.) Design of the product;
- 2.) The pattern of the unamortized expenses;
- 3.) Equity among policyholders; and,
- 4.) Marketing considerations.

The design of a product can demand a rear end charge. For example, in Canada many deferred annuity contracts and a few universal life plans offer the guaranteed interest account for premiums. This is an arrangement where each premium receives an interest rate guarantee for a specific period up to ten years. If the policyholder surrenders an account prior to the end of the guaranteed investment period, then a provision for an asset depreciation charge is essential. The market value of the company's assets backing up this guarantee can fluctuate greatly with changes in interest rates. The company is assuming an incalculable risk unless the asset depreciation cost can be passed on directly to the terminating policyholders. Asset depreciation charges are the primary reason for rear end charges in Canada. It is not possible to properly price for the asset depreciation risk on these products other than with a direct charge to the terminating policyholder.

Unamortized expenses can be recovered by rear end charges. If a policy terminates before its expenses are recovered, it is possible to recover the expenses by a rear end charge. These expenses can also be accounted for by a front end charge or by pricing margins. However, to cover these expenses by pricing margins it is important to be able to make an accurate persistency assumption. Rear end charges help to remove this persistency risk.

Equity is a consideration in deciding whether or not to use a rear end charge. For example, acquisition expenses can be recovered by a front end charge such as a percentage of premium, by pricing margins, or by a combination of rear end charge together with one of the other methods.

Front end charges mean that all policyholders contribute to pay for the acquisition cost. Pricing margins mean that acquisition costs are paid mainly by the continuing policyholders. Rear end charges mean that each policyholder pays for his own acquisition costs. Therefore, the use of a rear end charge may depend on the company's viewpoint of equity among its policyholders.

The marketing implications of rear end charges should also be considered. Knowing your market and your competition is an important consideration in deciding whether or not to use rear end charges. Another consideration is the potential for replacement activity in the future.

The competition is not always from within the life insurance industry. In Canada retirement funds can be accumulated by an individual in a Registered Retirement Savings Plan. Life insurance companies offer deferred annuities

to attract these funds. However, banks and trust companies that offer other investment vehicles compete in this market. Since the other institutions offer no load products, the life insurance companies have generally moved to a simplified no load product except for the inclusion of a modified asset depreciation charge on surrender. In this market a front end load product is generally not accepted, except where mutual funds are involved. Therefore, costs must be recovered mainly through interest margins and, to some extent, by rear end charges.

To summarize, the main considerations in deciding whether or not to use a rear end charge are:

- 1.) Product design. Does the product expose the company to the asset depreciation risk?
- 2.) Expenses. How should they be recovered?
- 3.) Equity among policyholders. Are both continuing and terminating policyholders being treated fairly?
- 4.) Marketing implications. Will the charge be acceptable in the marketplace?

In the deferred annuity market in Canada, the products offered have evolved generally without any front end loads. This has happened because of the competition with the trusts and banks for the savings dollar. This means that commissions and expenses must be recovered from interest margins or from rear end charges.

The product that my company offers in this market is a good example of a Canadian annuity product. Our plan is a flexible premium plan that allows deposits at any time. Each premium can go into a current interest account, where the interest rate can change at any time, or into a guaranteed interest account where the premium receives an interest rate guaranteed for one to five years, as selected by the policyholder.

In the guaranteed interest accounts, each premium has its own interest rate and investment period. The guaranteed interest accounts are contractually locked in for the guarantee period. This lock in feature means that the account cannot be surrendered during the guarantee period. We do, however, currently allow non contractual surrenders of these guaranteed interest accounts subject to a modified asset depreciation charge. Not all plans in Canada have the lock in feature. Some contracts contractually allow surrenders subject to an asset depreciation charge.

Since annuities in Canada need to be offered without any front end or rear end loads except for premature surrenders on the guaranteed interest account, the compensation structure must be carefully designed. Our compensation structure is designed to pay a level percentage of the fund as long as the funds stay with us. On the current interest account, the commission is credited monthly. Such a commission structure can be priced for by an interest margin without leaving the company too exposed to a loss on termination due to unamortized expenses.

On the guaranteed interest accounts, the commission payable over the investment period is front ended. The commission and other expenses are recovered

through an interest rate margin over the investment period. Therefore, a company is essentially only exposed if the surrender takes place before a guaranteed interest account matures. On such surrenders, we apply our modified asset depreciation charge. These surrenders are not very common because the policyholder has the option on both the investment period and on the current interest account at the time of deposit. Therefore, under normal circumstances, the policyholder is prepared to lock up his funds for the selected period.

Typically, an asset depreciation charge involves taking the account's value at the end of the investment period and discounting it back to the surrender date at the greater of the guaranteed rate or the interest rate then in effect. The modified approach that we use is to add 1.5% to the greater of these two rates and use this higher rate in the discounting. The extra 1.5% results in a rear end charge over and above the asset depreciation cost, and this allows the company to recover both the unamortized acquisition costs and the lost profit on the early termination. However, it is of key importance in this structure to be able to explain to agents and policyholders how an asset depreciation charge works. Although the guaranteed interest account is subject to an asset depreciation charge, the current interest account can be surrendered at any time without charge. However, interest is forfeited if less than fifty dollars has accumulated at the time of surrender.

This type of Canadian deferred annuity product illustrates how the four factors mentioned earlier have been considered in the decision as to whether or not to have rear end charges. First, the guaranteed interest account product design demands an asset depreciation charge on surrender of an account prior to its maturity. Second, the commission structure has been designed to eliminate the need for a rear end charge except on early termination of the guaranteed interest accounts. Third, the structure of the plan offers equity as each policyholder pays for his expenses either through interest margins or through rear end charges. Finally, the marketing considerations have been taken into account in the need for a product without any front end load.

The next product to be discussed is the universal life plan. Universal life plans are relatively new to Canada with only about a dozen or so such products introduced over the last few years. The product designs and commission structures are varied, so it is not possible to describe a typical product as was done for the deferred annuity. However, the approach to rear end charges is fairly similar between the plans offered. The general rule in Canada is that front end charges are used instead of rear end charges, although sometimes an administrative charge is levied on surrender. The question of expense recovery on a universal life plan is more complicated than with deferred annuities since there is more front ending of the expenses in the universal life plans.

A unique feature of a couple of Canadian universal life plans is the availability of guaranteed interest accounts for premiums where, again, each premium receives its own interest rate guarantee for a specific period. The very nature of this investment option requires the possibility of an asset depreciation charge on surrender.

The universal life plan that my company offers has undergone an evolution. In its initial form, the plan had a front end charge and a rear end charge

over the first twenty years. This was the logical structure from the company's viewpoint but proved complicated from the agent-policyholder viewpoint. Our agents asked for a more simplified structure so that discussions with their clients could focus on the benefits and flexibility of universal life and not on the loading structure. However, one problem with universal life is that the leveled commission structure of the deferred annuity products are rarely used with universal life so companies have to worry more about unamortized expenses.

Our revised plan involved the following loading structure:

- 1.) 2% premium load to cover provincial premium tax.
- 2.) Rear end charge of \$100, designed mainly to cover administrative costs of the surrender.
- 3.) Possible asset depreciation charge on termination of guaranteed interest account.

The majority of expenses are recovered from interest margins and from excess monthly insurance charges. In particular, there is an increased level scale of insurance charges that apply for about the first ten years to recover acquisition expenses. This structure has met the demands of the marketplace in Canada and has had a very positive impact on sales. However, it has the following implications similar to some conventional insurance plans.

- 1.) It is not the most equitable approach between terminating and continuing policyholders as policyholders terminating early have not paid their full share of expenses.
- 2.) The lapse assumption is critical. If lapses are higher than assumed during this initial period, losses will occur.

In this plan the asset depreciation risk has been covered by a direct charge to the terminating policyholder. The acquisition expenses are covered by pricing margins with no rear end charge, mainly because of the marketing implications of such a charge in Canada. Another reason why rear end charges are avoided on universal life plans in Canada is because of the marketing appeal of being able to offer partial surrenders at a minimal cost to the policyholder. This feature is an important selling point in Canada. However, it can increase the company's exposure to the persistency risk.

In summary, the differences in laws and regulations between Canada and the United States have led to some differences in product design and in rear end charges in particular. Probably the major difference is the asset depreciation charge, or market value adjustment, that is present in several Canadian deferred annuity products and a few universal life plans.

MR. SCHNAER: Thank you, Greg. The floor is now open for questions for either Harold or Greg.

MR. SELIG EHRlich: Greg, you said that the current account annuity product you offered had a commission structure that does not require a rear end charge since the commission is a percentage of the fund which is recovered through interest margins. Could you give a little more detail on how this works and what the level of commission is?

MR. KAISER: The commission is a level .4% of the fund each year, and on the current interest account it is payable monthly on a pro-rata basis. However, on the guaranteed interest account, since the contract is locked in, the commissions are all payable up front. For example, on a five year guaranteed interest account, the agent would receive 2% up front (.4% per year multiplied by 5 years).

MR. EHRLICH: In the current account, does the agent receive .4% on a single annual premium over the year but only 1/12 of that amount each month?

MR. KAISER: The commission for each month is based on 1/12 of the .4% of the fund value for that month.

MR. EHRLICH: Is that enough of a financial reward for the agent? How can an agent afford to make a living selling this product?

MR. KAISER: Well, the commission is payable monthly for the lifetime of the contract, too. Quite often, with interest rates as high as they are in particular, policyholders are electing guaranteed interest accounts where the commission is front ended. This also makes it a little more worthwhile for the agent. The goal for agents who want to be involved in the annuity market is to build up a portfolio of sizeable funds, thus building up the compensation. Obviously, starting up in the annuity market can be a little difficult.

MR. DONALD SONDERGELD: What type of annuity products did you describe? Were they annual premium, single premium, or flexible premium?

MR. KAISER: The first product I described was a completely flexible premium plan. The policyholder is not locked into any type of premium payment. Each premium, when it is received is placed in the account specified.

MR. SONDERGELD: Is that also true of the life product you described?

MR. KAISER: The universal life plan is structured to have annual amounts coming in each year. However, it is fairly flexible within the constraints provided by the Canadian Tax Laws for policyholder tax which effectively limit the amount that can be paid in any year. But, otherwise, it is flexible as to premium payment.

MR. SONDERGELD: How flexible is the guarantee period?

MR. KAISER: In the deferred annuity market in Canada, it is very common for companies to offer guaranteed interest accounts. Our company, in addition to the daily account, offers guarantees ranging from one to five years. That is fairly common, although one or two companies will go as high as ten years on the guarantee.

On the universal life plans, to my knowledge there are only two companies that offer a guaranteed interest account. Our company offers just one option, a five year guarantee account. There is one other company in Canada that offers a variety of guaranteed interest accounts.

MR. MARK ALHANTI: Could you explain how you illustrate your asset depreciation charge on your universal life product?

MR. KAISER: We have not been really effective in illustrating the asset depreciation charge on the universal life plan. What we are hoping is that, over time, there will be several premiums coming into the plan all at various interest rates. Unless the situation gets very extreme, we hope we will not have to make any asset depreciation charges, since it is difficult to explain to the policyholders. This type of account, was recently introduced by our company and we are still working on more appropriate explanations for the agents and, in turn, for the policyholders. The agents have been exposed to these asset depreciation charges, though, through the deferred annuity market.

MR. PHIL ELAM: Could you describe the process of determining the asset depreciation charge and comment on whether the process is regulated?

MR. KAISER: The process is not regulated. Also, there are different approaches used. The approach that we use is to take the guaranteed value at the end of the guarantee period and discount that back to the date of surrender using the greater of the rate guaranteed in the contract or the rate that is currently being offered on a new plan. In addition, we add 1.5% to cover the expense charges.

MR. ARMAND DEPALO: Harold, on rear end load products, interest credited to a fund where the cash really isn't held by the company at that time causes the interest rate being credited to be lower than would be credited on a front end load product. Is this understood by the agency force?

MR. INGRAHAM: Theoretically, what you have said is true. But what has also happened in the last couple of years is that companies are starting to invest longer. With the yield curve being normal rather than inverted, companies have moved from the original front end loaded designs, where the average maturity might have been six months to a time horizon which is an average of three to five years. In some instances, strategies involving hedging or zero coupon stripping, have been utilized.

Thus, the theoretical argument has been blurred by a modification of investment strategy which has also produced higher rates to be credited due to the perceived or real ability of the company to earn more money on the underlying assets.

MR. J. ALAN LAUER: Greg has stated that customers of the flexible annuity can elect to have their money invested into either the guaranteed or current interest account. Could you characterize the type of market or customer that elects the guaranteed interest account versus those who elect the current interest account?

MR. KAISER: The deferred annuity product I discussed is used primarily in the Registered Retirement Savings Plan market. This is a plan marketed in Canada where people can get some tax savings by putting money aside for retirement. Their retirement can occur on the plans by regulation at age sixty and they must take their income by seventy one. Thus, what we have is a situation where people are putting aside money for a long term purpose. Because of that, they are not reluctant to use a guaranteed interest account.

I think the primary factor, since they're really building money for retirement purposes, is what interest rates are being offered. Under a normal investment situation, like we have now, where the guaranteed interest ac-

counts are offering a higher interest rate, people are tending toward those. A couple of years ago in Canada, and probably in the United States, the interest rates jumped all over the place and people were then putting money into the daily account or current interest account. However, the decision of which account to use is mainly determined by the interest rates currently offered. The policyholder also has some flexibility if the money is in the current interest account, since he can at anytime elect to transfer it into one of the guaranteed interest accounts. So if interest rates are climbing and they seem about to peak, the policyholder might plan on transferring money from the current interest account to the guaranteed account. The major consideration is current interest rates and the perceived interest rates for the near future.

MR. SCHNAER: Harold, you had mentioned that your agency force had somewhat of a culture shock when you introduced your rear end loaded product. Could you describe the process used to help the agency force adjust?

MR. INGRAHAM: The environment for career shop companies, particularly mutual companies, where the agents have been selling traditional whole life type contracts is different now than it was a few years ago when universal life first burst on the scene, led by E. F. Hutton Life and Life of Virginia. At that time, there was a question about some of the pricing assumptions. There also was strong evidence that some of the products were being sold using dubious advertising practices, including use of a high current interest rate, and limited disclosure of the impact of excessive loading and mortality charges. There was concern about external replacements, with agents extremely concerned about the sharp reduction in compensation in the earlier designs. Also, there was a cloud over the product with respect to its income tax treatment.

A lot of that has changed now due to the new tax act creating a clear understanding of the rules for this product. Also, agents have come to understand its market potential.

There is strong evidence that agents who used to sell \$20,000-40,000 in average amounts of protection are now having their clients buy \$100,000 for essentially the same outlay. Therefore the commission reduction which was feared has not materialized. Also, there was a substantial amount of universal life business being brokered out to companies with competitive universal life products.

The product we came out with, based on current assumptions, really beats our comparable traditional whole life contract. This causes a certain amount of consternation until it's explained and understood that there are still a number of legitimate arguments for selling traditional whole life.

One of the arguments for selling traditional whole life is exemplified by our company's practice in determining dividend interest rates. It has been widely publicized and Don Cody put it in print with an analysis which essentially stated that we are using a modified portfolio method of determining dividend interest on non-loaned assets. Now, that means that if new money rates go down and stay down, it will be quite a long time before our dividend interest rate also goes down, due to the stabilizing effect of the portfolio rate. However, with universal life there is no such stabilizing effect. In the next two years there will certainly be a time when interest rates significantly go down and the credited rates will have to go down with them for us to maintain any semblance of our profit margins.

The agents have implicitly been assuming that our dividends are guaranteed because we have not reduced them since the Depression. With the dividend scale progressively being enhanced, customers have come to believe that dividends never go down, they only go up. However, that is not true of universal life. The agents are further reminded of the time in the early 1970's when they started marketing mutual funds and the funds went down and their clients blamed them. So, when you go through that line of discussion with the agents, they become more comfortable that even though today's numbers may favor universal life, tomorrow's may not.

In particular market segments universal life is a very attractive product, especially in defined contribution pension plans. There is not much reduction in compensation to the field because the agent can show for the specified portion of the defined contribution allocated to life insurance a significant increase in the amount of available coverage. We have also found that a universal life product priced on a guaranteed issue basis is extremely attractive in the 401(k) market, which we think has exciting potential for life insurance.

I went to the Enrolled Actuaries meeting last January to speak on pension trust product development and found that a lot of the people attending that meeting who do not represent life insurance companies are quite enthusiastic about the use of universal life as a funding vehicle in small pension plans.

For all of these reasons, we have established a marketing philosophy to make available a menu of products among which rear end loaded universal life has a legitimate place alongside the traditional product.

MR. ROBERT WILLETT: Harold, how much are your remarks tempered by the Treasury's position that 25% is the maximum that you can put into a universal life product?

MR. INGRAHAM: I would be even more enthusiastic if the Treasury would recognize that 25% is an unrealistic limitation on universal life unless the whole deposit was term. If we could put in more than 25% in a defined contribution plan or in a 401(k) plan, as can be done with traditional products, then universal life would even be more of an exciting product in qualified plans.

MR. SCHNAER: Now we will move on to Dennis Carr. Dennis is a Vice President of Tillinghast, Nelson, and Warren who will explain what the actuary should consider when developing a rear end loaded product.

MR. DENNIS CARR: In the middle 1970's, annuity products began an evolutionary process. This evolution was spurred by commission disclosure rules which were part of the IRA law, and by the competition which IRA's caused between life insurance companies and other financial institutions. The trend in annuity products during this period was away from high front end loads and toward low front end loads. The trend then moved toward few, if any, front end loads with a corresponding increase in the use of back end surrender charges.

The surrender charge concept also has become prevalent in other financial markets. Certificates of deposit, issued by banks, have become popular savings vehicles. Of course, they charge substantial penalties for early withdrawal. In addition, mutual funds have appeared recently with no loads up front, but with "deferred sales charges."

Today, universal life certainly is a popular life insurance product. In a recent study produced by LIMRA entitled "Universal Life, Product and Compensation Design", it was stated that "Level expense load and back expense load policy designs are gaining popularity. These designs account for 14% of the policies in the study." I would agree with LIMRA's statement and see the trend toward back load universal life products gaining momentum.

This morning I would like to discuss two particular backload product types: universal life and the single premium deferred annuity. The majority of my comments will be in regard to universal life, with only a brief time devoted to the SPDA.

Before going any further, let me describe a typical backload universal life product.

First, the policy loads are quite low or in some cases nonexistent. A level monthly per policy load, a level percentage of premium expense charge or some combination of the two is common. Monthly expense loads generally range from \$3 to \$5, while percentage of premium charges generally range from 4% to 9%. These policies are characterized further by significant surrender charges, which typically represent greater than 100% of the target or minimum premium in the early policy years and grade to zero sometime between the 10th and 20th policy years.

Backload universal life products can be viewed from several perspectives. From the consumer's viewpoint the small loads are appealing. With the attractive yield rates available, the policy appears to be competitive, no load life insurance.

From the agent's standpoint, the product is attractive because it is very easy to sell. As described above, the product provides an excellent return to the insured, provided he or she makes it past the surrender charge period. In addition, these products pay reasonably good commissions. The previously mentioned LIMRA study shows that universal life commission rates in general average a little over 90% of comparable whole life commission rates. This assumes a commission base of the minimum or target premium for the universal life plan. The study further states that backload universal life products pay approximately five percentage points less in commission than the more traditional universal life designs.

From the company's standpoint, the product generally means thinner profit margins. In addition, the elements of cost, particularly cost of insurance rates and interest rates, are exposed to the insurer. There are few places to hide any profit margin in the backload Universal Life product. It becomes imperative, then, that the Company accurately price the product. This means, among other things, using accurate and up to date assumptions for items such as expenses, mortality and lapse.

Finally, from the regulators point of view, disclosure becomes a big issue. These products have both a fund value and a cash surrender value, with the difference between these values being the surrender charge. It is important that the surrender charge be disclosed properly to the customer. Further, regulatory issues include proper valuation of liabilities and proper matching of assets and liabilities. In the asset and liability matching area, the recently developed NAIC model law for universal life describes detailed requirements which companies must meet in order to sell indexed universal

life products. These requirements include, among other things, a demonstration and certification by the actuary that the assets and liabilities are matched properly.

Now that backload universal life has been viewed from several perspectives, let's move on to a discussion of some of the important product development considerations involved with this type of product. The surrender charge, obviously, is a major feature of the product. This charge can take several forms, including per thousand, percentage of premium and percentage of the fund value. Proof of nonforfeiture compliance is made much easier under the new universal life model law, if the surrender charge is expressed as a per thousand amount. Percentage of premium charges also can be proved since they can be converted to per thousand charges for purposes of demonstrating compliance. For percentages of fund surrender charges, which are quite popular with annuity products, it is quite difficult to prove compliance. For this reason, percentage of the fund surrender charges probably should be avoided, if possible.

The level of surrender charge is another key factor. Basically, there are two common types of surrender charge. The first type, which I will call the "percentage of premium" surrender charge, involves an initial surrender charge, which relates to the target or minimum premium under the plan. Generally, the charge begins at a level of between 100% and 150% of the premium for all issue ages.

The second type, which I will call the nonforfeiture allowance surrender charge, involves an initial surrender charge, which follows the nonforfeiture expense allowance for a whole life type policy. This charge is a higher percentage of the minimum or target premium at the younger issue ages, often two or three times the premium, and a lower percentage of the premium at higher issue ages. The percentage of premium surrender charge probably makes more sense to agents and policyholders, since it relates directly to the premium. However, the actual acquisition expense of the company generally relates more closely to the nonforfeiture allowance surrender charge. Therefore, to the extent that surrender charges are developed in order to recover unamortized acquisition expenses upon early surrender, the nonforfeiture allowance surrender charge may be more appropriate from the company's standpoint.

Regardless of the type of surrender charge used, as charges are developed it is important to consider the regulatory aspect. As mentioned earlier, the new NAIC Model Universal Life Bill defines specifically the nonforfeiture requirements. This law is complex and anyone developing a backload universal life product needs to fully understand all of its ramifications.

As described earlier, the backload universal life policy typically has a level expense charge of some type. To the extent possible, the policy charges should be designed to offset the actual maintenance expenses of the company. Generally, acquisition expenses and commissions are not covered through front end loads under the backload design. The necessary load structure is quite sensitive to the policy size, both in terms of premium and face amount. As policy size increases, the specific loads can be decreased somewhat, as a portion of the maintenance expenses can be paid for by margins in the mortality and interest elements of the policy. As the policy size decreases, however, it becomes much more important to cover the

actual maintenance expenses through specific policy loads. This is particularly true for policy sizes below \$50,000.

Cost of insurance rates are an important aspect of backload universal life plans. Generally, a significant portion of the profit margin is generated through margins in the cost of insurance rates. It seems that backload universal life products have less competitive cost of insurance rates than their front end load counterparts. The expenses need to be covered and a profit margin generated somewhere, and, with backload universal life it appears that cost of insurance rates are an important source of profit.

Cost of insurance rates for backload universal life plans generally vary by attained age, with very few, if any, select and ultimate scales. Mortality profits emerge much later on select and ultimate scales and it appears that the current backload design generally cannot afford this deferral of profit. It is difficult to see how backload universal life could support a competitive select and ultimate cost of insurance rate scale without a significant increase in the front end load or significant reduction in the acquisition expenses, primarily commissions.

Probably, the most visible competitive element on backload universal life plans is the interest rate credited. In designing a plan, it is important that both an adequate interest spread and a proper asset/liability match be maintained.

Also, it is important to establish a proper investment strategy. Cash flow studies should be completed and a proper investment strategy should be developed with the aid of the investment department. Cooperation between departments is a must for the proper management of interest sensitive products. As experience evolves it is important to keep accurate management data so that the interest rate spread can be monitored and appropriate adjustments can be made to the investment strategy, if necessary. The investment risk must be understood and managed or it is possible that the recent SPDA problems will be repeated with backload universal life.

Agents' compensation on backload universal life products is slightly lower than on traditional products. A typical commission structure would pay between 80% and 90% in total marketing compensation in the first year, and 5% in renewal years. This is in line with the results of the previously mentioned LIMRA study. One additional compensation twist, which has been used by several companies, is a renewal commission expressed as a percentage of the fund value. This is attractive in that it gives some additional persistency incentive to the agent.

As mentioned previously, the profit margins on backload universal life products are low and tend to be declining. In such an environment it becomes important to conduct enough profit tests to determine the sensitivity of the profit margin to changes in all of the important assumptions. One set of profit tests just will not do.

Another key and interrelated concept is the source of profits. It is important to know where your profits are coming from. In other words, you need to know the proportions of the profit margin which come from mortality, interest, and expense. It is surprising how much of the profit comes from the mortality margins on backload universal life plans. Not only that, but the mortality profits emerge in the early policy years, mainly in the margin

of the cost of insurance rates over select morality experience. The interest margin is deferred until the later policy years when the fund has grown to a significant size. Expense margins usually are nonexistent on backload universal life products. In fact, it is common to have a "loss" on expenses with this type of product. Once these sources of profits are understood, the product can be designed so that a proper balance of the sources of profit is achieved.

The new NAIC model law for universal life defines the reserve basis to be used for backload universal life plans. The method is complex, and it is important that a good understanding of the valuation requirements in the new law be developed. Particularly for backload universal life plans you need to be aware of the alternative minimum reserve section, which may require significant reserves for true no load products.

The definition of life insurance contained in the new tax law also has some ramifications, particularly for fixed premium backload universal life products. If you decide to meet the guideline premium and corridor definition, it is important to understand the interrelationship among gross premiums, guideline premiums and valuation premiums. The cash value accumulation test is much easier to satisfy. However, it may generate excessive amounts of insurance and thus, lower cash values. While fixed premium backload universal life plans are problematic in this area, flexible premium designs generally can meet the guideline premium and corridor tests with few problems.

Finally, when developing a backload universal life plan, it is important to compare with the competition. As always, a non-competitive product will not be very popular with the sales force. However, any adjustments made to meet the competition should be made carefully because of the narrow profit margins involved.

Next, I would like to make some brief comments in regard to single premium deferred annuities. This is probably the most popular backload product to date in terms of sales. I previously alluded to the recent problems suffered by many SPDA writers. These have been well documented by the press so there is no need to go into detail. In the context of this session, it is important to ask the question, did the backload design play a roll in the SPDA problem? It is my opinion that the backload design really had very little, if any, to do with the recent SPDA problems. The basic problems have stemmed from a mismanagement of the investment risks involved. These risks were not familiar to the insurance community and in many cases have been mismanaged. The back end loads were not really intended to help cover investment risks. They were designed in order to recover unamortized expenses, primarily commissions in the event of early withdrawal by the policyholder. Although the backload design did not cause the problem, it is important that actuaries and others involved in product design and management fully understand the investment risks involved with all interest sensitive products, not just SPDAs. It is equally important that the customer be charged a proper price for the investment risk assumed. These are the important lessons to be learned from the recent SPDA turmoil.

To summarize, we are in an era of decreasing profit margins. For backload universal life plans, the profit squeeze is in progress, whereas for SPDAs the profit squeeze already has occurred. In such a situation, it is important to understand the risks involved with a back end load product and to

develop the most accurate experience data possible so that a proper price can be charged. Actual experience then needs to be monitored carefully and the product managed.

Backload products are becoming a proven commodity. From certificates of deposit to mutual funds and from single premium deferred annuities to universal life, the backload concept is popular with both customers and salespeople and thus, will continue to play an important role throughout the 1980's.

MR. PAUL STRONG: Dennis, in reference to the decreased profit margins on back end loaded universal life, what is your opinion on the availability of an inherent extended term insurance feature in universal life without the usual mortality loading and a low guaranteed interest rate which is common with traditional extended term insurance? Very clearly, extended term is an automatic feature of universal life with only a current mortality charge levied and with current interest rates credited. Further, on universal life, extended term can be continued at any time that the fund starts to deplete by adding additional funds.

Also, do we feel that the financial impact of this is going to be significant? Obviously, it's something that's not very pressing today, or at least just something that has been overlooked in the universal life marketplace?

MR. CARR: In my experience, it is not an element that is normally built into the pricing. I really have no comment. Maybe someone from the audience has studied the situation further. But, generally, when we price a universal life product nothing is built in for additional mortality from the extended term feature.

MR. SCHNAER: That would be another argument for having what might otherwise appear to be margins of slightly excess conservatism in the mortality charges.

MR. STRONG: It is hard to see this as a real problem today, but I can guarantee you the field force will in the future utilize this feature. We are going to see extended term utilization of this product that will be extensive. It is just going to be automatic and certainly the contracts we come out with today are going to govern the utilization of this in the future.

MR. ROBERT JOHANSEN: Mr. Strong brought up a good point. As a consulting actuary involved in the design and pricing of a universal product, I have become concerned about what I might call "renewable extended term." This occurs when premium payments stop and the investment return is not sufficient to cover the cost of insurance. The fund dwindles and, under the level death benefit option, the amount at risk increases. If we are using interest margins to cover administrative expenses, such a policy is not paying its way.

Further, the company must notify the insured when the fund is no longer able to pay the insurance cost. The insured is then able to continue his "extended term" as long as he wishes my making minimum payments. The opportunity for mortality antiselection is evident.

The administrative shortfall could be taken care of by a per policy charge on all policies. However, New York's current regulations do not permit such

a charge. The 1980 CSO table has relatively thin margins and adding sufficient margin to mortality rates charged all insureds in order to cover expenses would adversely affect the premium paying cost picture, particularly at the young ages and the larger amounts.

One solution might be to charge 1980 CET mortality rates whenever and only to the extent that the insurance costs are deducted from the fund. There are some practical hurdles for this solution, one of which is appropriate policy wording. For example, the provision must assure that neither a "fully paid up" policy on current assumptions nor a "vanished premium" policy would be adversely affected.

I am not in favor of actually putting such a policy on a nonforfeiture status and requiring reinstatement because this defeats the flexibility that makes the policy attractive. However, the option should be paid for by those who benefit from it.

It seems that this renewable extended term feature will be a considerable problem in the future, particularly regarding expenses. If the mortality cost has to be covered out of the fund and the interest and premiums are not sufficient, it is going to be a real problem. The agents will certainly look at this as a desirable feature and I do not know how you control it. Perhaps some wording in the policy using the CET mortality table would be best, but it is difficult to put in writing when the CET table should be used.

MR. WILLIAM ZEHNER: We have been aware of this problem for about a year, and in the pricing of our products we initially dealt with this by having a minimum premium. As long as the minimum premium was paid, nothing happened, but if you stop the minimum premium you would go on to extended term. Later, if you wanted to start your premiums again you would need to go through the normal reinstatement. That was our initial solution to this. Some of the field reaction has been in favor of the typical stop and go feature. Therefore, we are pricing another product with additional mortality because we feel there is a potential to have extended term mortality experience while charging only the current rates.

MR. DENNIS CARLSON: One element in pricing that is significant (and it must be because our agents do not like it) is the interest threshold. Thus, if there is only a small amount of cash value and the policy is essentially extended term, then the threshold will effectively deduct an expense charge to the extent that current interest is not being credited on the cash value under the threshold.

Dennis, could you tell me if it is commonplace for the back end load products to enforce termination of the policy when the cash surrender value (but not to fund value) reaches zero? In other words, do you force termination of the policy and not allow it to stay on extended term using the surrender charge?

MR. CARR: There is usually full coverage of the surrender charge. Generally, if you look at the policies and assume premiums are paid, that situation occurs for a period of a couple of years. Various people are handling it different ways, but many times the policy will have a required premium for two or three years. As long as the required premiums are paid, surrender of the policy will not be forced even though the cash surrender value might be negative.

MR. CARLSON: My concern is if in fact we do not force surrender then it may be difficult to cover all of our expenses with the result being lower current interest rates in order to increase the interest margin element.

MR. DAVID W. COOK: Dennis mentioned the need for pricing the investment risk on an SPDA and Greg described an asset depreciation charge. A few companies have started to introduce a modified market value adjustment for individual SPDAs. Dennis, is there much of a trend toward this type of adjustment and have the state regulators been allowing it.

MR. CARR: There have been some attempts, but generally they have been unsuccessful partly due to regulatory problems and partly due to the difficulty in explaining it to a customer when it happens.

MR. DEPALO: Nonforfeiture laws now allow a dynamic interest rate to raise the guaranteed interest rates to very high levels. Products with 6% guaranteed interest rates and possibly as high as 7½% will undoubtedly surface. If short term investments are used with an interest rate spread of 1% to 1½% and the normal expenses and other charges made on a back end load product, then it is very possible that the margins will be wiped out by the guaranteed interest rate.

We are living in a very high interest environment that is not guaranteed to continue and I am very concerned that companies are going to be pricing with margins that are not there. Also, some companies are going to institute non-smoking mortality charges and find out that they have 90% non-smoking issues. Thus, the margins may be very thin with some of these products and the interest margin expected to support a very large amount of the back end load charges just will not materialize. Dennis, do you have any comments on this scenario?

MR. CARR: I share the concern that the margins need to be priced very specifically. However, I disagree with your last comment about the mortality margins. The mortality margins are fairly substantial and they also get you to a profit position earlier. It will be a danger signal if you see companies begin to use select and ultimate scales since the product will not under its current structure support this type of change.

MR. DANIEL KUNESH: Recently, in attempting to help a company GAAP universal life, I noticed a dilemma with aggregate mortality charges. Companies may be using mortality patterns that are overly optimistic in order to show very favorable ultimate accumulated value. I saw situations where the GAAP assumption, which appeared to be realistic, was 30% to 40% above the aggregate mortality charge in later years. Thus, you have a real dilemma from an accounting standpoint, perhaps having to recognize the loss up front. Dennis, what are you seeing other companies assume for lapse rates and cash flow? It seems that on some products, the earlier the surrender, the better off the company is in terms of expected profit.

MR. CARR: What you have said bewilders me because we have been hearing that mortality charges are redundant. However, you seem to be implying that these aggregate mortality tables are not redundant, but in fact are insufficient.

MR. KUNESH: I have seen that occur on products where companies have made adjustments in the later years. I do not know whether the companies intend to really use the mortality rate or if they are just adjusting the product to get competitive position.

MR. ZEHNER: In pricing this product, we used the 1980 CSO table. Unfortunately there are a couple of states, Pennsylvania and California, where you must use the smoker/non-smoker basis, in order to avoid other very complicated alternatives. Has any other company which has not used the 1980 CSO run into this type of problem, and how have they solved it? We have found that we cannot get our mortality charges down low enough to meet the 80 CSO requirements. In fact, I see people avoiding 80 CSO for this reason and probably the major reason they are trying to stay with the 58 CSO just as long as they can is because it allows more freedom in establishing smoker rates.