

RECORD OF SOCIETY OF ACTUARIES 1991 VOL. 17 NO. 4B

PRODUCT UPDATE – INDIVIDUAL LIFE

Moderator: SANDRA POTASKY
Panelists: DOUGLAS C. DOLL
W. STEVEN PRINCE
MICHAEL J. ROSCOE
Recorder: ANNE M. KATCHER

- Discussion of "current events" and impact on product design
- Proposed SNFL changes
- Multilife products
- Focus on guarantees; solvency concerns
- Canadian issues

MS. SANDRA POTASKY: We have three speakers representing a wide variety of product development experience. Each panelist has prepared comments on a current event in the individual life arena. Our first speaker will be Steve Prince. Steve received his fellowship in 1984 and is also a Fellow of the Canadian Institute of Actuaries (CIA). Steve has served on the Education and Examination Committee for four years and was chairman of the Credit Insurers Association Committee on MBA Credits for two years. Steve is currently a member of the CIA Committee on Continuing Education. He has spoken at previous meetings on conflicts of interest and on expense reductions. He recently authored a study note on regulations affecting marketing of life insurance in Canada which has been added to this fall's curriculum. Steve's work experience has been primarily in product development, although as of last year he became valuation actuary for his company's Canadian business. Steve will be giving us a Canadian perspective on product development concerns.

After Steve, we will hear from Mike Roscoe. Mike has been an actuary with Hartford Life Insurance Company since 1981. He received his fellowship in 1988. He has been responsible for pricing and product development of individual life products since 1986. He recently developed a portfolio of interest-sensitive whole life products to complement the existing flexible premium universal life line of business. Chief among the new products are a last survivor product and a first-to-die product. The latter may cover up to eight lives with varying death benefits on each and Mike will be talking about those products.

Finally, Doug Doll will provide us with the latest update on proposed changes to the Standard Nonforfeiture Law and its effect on product design. Doug is a consulting actuary for Tillinghast, a Towers Perrin Company in Atlanta, Georgia.

He practices primarily in the area of individual life insurance, including product development, financial reporting, and financial and asset/liability modeling. He is Tillinghast's national practice leader for financial reporting. Doug began his career with General American Life Insurance Company in 1974 and joined Tillinghast in 1978. He is a Fellow of the SOA and a member of the AAA. His professional activities include being a member of the section councils of both the product development and financial reporting sections of the Society and being a member of the executive committee of

OPEN FORUM

the Southeastern Actuaries Club. First, we're going to hear from Steve on Canadian developments.

MR. W. STEPHEN PRINCE: I've been asked to speak on issues facing a Canadian product actuary and since I can't possibly speak for the whole industry, my comments necessarily reflect my own situation. My company situation is that we're the Canadian subsidiary of a large U.S. mutual company. We have our own computer systems administration in Canada and we do all our own product development work. On its own, the Canadian operation would be medium-sized by Canadian standards.

Current concerns facing our product development work fall into six categories: (1) term wars; (2) the investment income tax; (3) AIDS; (4) deferred annuities, (5) policy retention; and (6) selling the company rather than the product.

TERM WARS

I've been attending these sessions for quite awhile, and every year I've been told that term wars are about to end. I'm still waiting for that to happen. We recently launched a term product that has the undesirable distinction of not only not meeting our profit objectives, but also not being competitive either. Every year our President and our marketing folks ask me how can this be and every year I give them the same answer: companies are loss-leading. Some of them do this consciously. Some of them do it less consciously by creating preferential expense formulas. The reason so many companies would want to do this for so long is certainly not the topic for this session, but it sure continues to be a problem in a competitive sense.

INVESTMENT INCOME TAX

This new tax was enacted in Canada two years ago, then significantly revised one year ago when the government decided it wasn't getting enough revenue from the first version of the tax. The tax conceptually applies to the investment income on the cash value built up inside a life insurance policy. There's a deduction for gains taxed in the hands of policyholders when the policy is surrendered. The impact is a reduction in net investment income of about 50-100 basis points. The tax formula is designed around something we have in Canada called the Maximum Tax Actuarial Reserve, which is the basis on which we file tax returns, rather than statutory returns. Since it's based on an assumed interest rate times a tax reserve, it's not actually related to your investment income, so there's a mismatch here. Certainly, however, the result is less investment income for product purposes. The tax does not apply to annuity policies or to existing policies where the interest rate or the dividends or premiums cannot be adjusted. You'd think this new tax would translate into lower dividends on par products or lower credited interest rates on universal life products. I'm still waiting for that, too. The lead time required to implement a dividend change can be a year or two in some companies, so perhaps it'll be a pleasant surprise as the major companies announce their dividend scales this fall. But the experience so far in universal life products, where the rate can be changed on a few days notice, is not encouraging.

AIDS

AIDS has become a nonissue in Canada. Essentially all companies are testing for AIDS at \$100,000 or less of insurance, and as the new saliva and urine tests prove to be reliable, virtually all policies will be tested in Canada. There were some

PRODUCT UPDATE -- INDIVIDUAL LIFE

government-mandated valuation requirements in Canada relating to AIDS, but even these were relaxed last year as AIDS experience proved to be less than feared. AIDS in the general population in Canada has not been as serious a problem as it has been in the U.S. and the resistance to testing from advocacy groups has not been terribly loud or terribly effective.

DEFERRED ANNUITIES

We recently had some consultants in to review our annuity operation with a view to streamlining the administration and improving the investment management. The consultants had done extensive work with banks and trust companies and other major insurance companies. They commented that insurance companies tend to treat annuities like insurance policies and we admitted that it was probably true. The result was that annuities receive far more handling and produce far more expense than a company can afford when competing with banks and trust companies who do not share this approach. Not surprisingly, we're working to reduce the handling in our annuity processing. Many companies, including us, used to receive an application and then issue a separate multipage contract for every application, listing every conceivable option that the client might have. At many companies, the client now receives simply a one-page contract at the time the money is received and then a confirming receipt is issued from the Head Office.

A product lesson that could be learned from this could be viewed as a sort of less-is-more philosophy. We used to try to contractualize every conceivable option in the contract and use that as a selling point with the client. The result was a long, complex document that was expensive for us to produce and bewildering for the client to try to understand. Now our contracts contain the bare minimum of features which we try to administer with a sense of flexibility. For example, we used to list several settlement income options in our annuity contracts neatly labeled 1, 2, 3, and then 3-A, 3-B, 3-C, etc. Now we simply list two and say we will guarantee to provide these two and "whatever other options we are offering at the time." The result is certainly a more understandable contract for the client.

On the profit side, consultants compared our investment experience with that of the banks and trust companies and with other life insurers. According to these consultants, who are with a major international firm, most life insurers are losing money on annuities, either consciously or less consciously through preferential expense formulas. I'm waiting for that to end, but I'm not holding my breath.

POLICY RETENTION

Our company is particularly interested in this, as I'm sure are most of the people in this room. We're designing our products to be more flexible and to give owners an incentive to add to their existing coverage rather than surrender their old policy. Our own policy change rules used to essentially force a client to give up his old policy so that he could get the best banding from his combined total insurance requirement. Our preferred risk class, for example, was not even available on small policies, so a client with three small policies had no hope of getting this benefit. Now, we pass along the banding benefits when the client adds to his existing insurance policy. We also give banding benefits when multiple lives are combined on the same coverage such as business partners or family members. Aside from the obvious marketing appeal, there are benefits to us as a company. One is that the multiple life policies

OPEN FORUM

are much harder to replace. There are more medicals to do, more features to compare, more people to talk to. Also, without giving away all our secrets, the banding feature is more than just a saving of the policy fee compared to separate policies. A second benefit of this feature is that our premium per policy has actually increased. This factor is of great interest in times of rising costs. There is some additional expense from issuing multiple coverages, but it is not as great as the costs of separate policies. In making the domestic sale, the agent can often sell coverage on the spouse with the hope that now the total coverage on the family is large enough for the next rate band. In the past, the agent would not have made this sale or would have simply sold a nominal amount of coverage under our spouse and children riders.

This combined banding feature was included in our term and whole life products launched last year. Sales of both of these products are up this year, even though our universal life sales are down by comparison. Universal life used to be sold on its flexibility. You could add other lives to the policy. You could increase or decrease your coverage. You could take premium holidays using the fund built up in the policy. You can do all of this now with our whole life policy. The premium holiday is handled through dividend options, including a rider which lets you pay additional funds into the dividend account to build up value sooner for premium holidays and so forth. Many agents are now wondering why anyone would want a universal life product with its complexity and confusion.

SELLING THE COMPANY RATHER THAN THE PRODUCT

By this I mean, the client is sold on the virtues of having his insurance with a solid company that will be there when the time comes, even if the price isn't the lowest. Our U.S. parent is putting a lot of effort into a campaign aimed at reminding our own agents and potential clients about the U.S. life insurance failures recently and certainly how our company is not in that league. This is supposed to translate into more sales which we are calling internally the "flight to quality." This is not happening in Canada. The life insurance industry in Canada is more solid in general than the U.S. and the regulatory environment is somewhat different. We haven't suffered the real estate bust which is plaguing a number of otherwise viable U.S. companies. So in terms of solidity, there doesn't seem to be a big development in the Canadian market.

So where does all this leave a poor beleaguered product actuary? What are we working on for the future? First of all, competition is still here and it's still pretty intense. Term wars continue. The new investment income tax has certainly added to everybody's costs in an already tight market. Our annuities compete against banks with much different cost structures and with other life insurers who loss-lead to match the banks. It's likely going to continue for some time.

We're all looking for value-added products or "competitive advantage," as management guru Michael Porter calls it. That is, we're trying to find something for which the client is willing to pay more than it costs us to produce or which we can produce more cheaply than our competitors. There are whole books written on this subject, and outside the insurance industry the usual examples are of boutiques taking on small projects that a large manufacturer would find uneconomical.

PRODUCT UPDATE -- INDIVIDUAL LIFE

Value-added products are hard to find in life insurance. Higher cash values don't fall into this category because you usually just charge enough extra premium to break even on the deal. Preferred risk classes are not in this category, because almost every company I can think of discounts their price by more than the claims savings from preferred risk classes. Financial planning services by agents don't fall into this category. What usually happens is the prospect takes the laboriously prepared financial plan and then shops around to other companies to find the cheapest way to get whatever the plan requires. Several agents I know can talk about this phenomenon at some length.

The future direction is that we're keeping our eyes open for these kinds of value-added opportunities, but I'd be at a loss to list many of them right now. The second point is that product flexibility and product understandability may be true competitive advantages. Flexibility is something clients can understand and appreciate. It's something they expect and the lack of it has been hard to justify in the past. Clients understand combined banding and volume discounts and paying all their premiums with a single check. As a company, we have had all kinds of systems reasons and administrative excuses in the past why we were unable to do this. A lot of our product and service people are now working on making the products more understandable from the customer's point of view. It's slow going and painful at times for all concerned.

This search for simplicity contrasts with some of the gimmicks I've seen on riders that I have trouble understanding and I question whether the client does also. Ask a prospect on the streets what he thinks of switch-backs, height index expense adjustments, and bail-out provisions if the company's differential for market leaders exceeds the contractual margin, the aforesaid legislative reversionary proviso notwithstanding. People tell me these things are client-oriented, but I have yet to hear anyone ask for them on their own. There's a lot more at work here than simple contract language. The products themselves must be easy to understand or the contracts will be inherently complex.

MR. DOUGLAS C. DOLL: What are companies in Canada using as their AIDS testing limits?

MR. PRINCE: In Canada, I don't know of anyone being at more than \$100,000 for AIDS testing and several are talking about going to \$50,000. One company announced that they were testing every application, but they had a \$100,000 minimum size.

FROM THE FLOOR: Sun Life of Canada is testing at \$200,000 and over, so we are above \$100,000.

MR. MICHAEL J. ROSCOE: My topic is multiple life products, which falls into two groups, either the last survivor or first-to-die. Last survivor policies are becoming much more common in the industry. First-to-die is a much more recent concept. Actually, it's a fairly old concept that did nothing for awhile and is now being resurrected. Most of my comments on the first-to-die will be based on my own experience in developing the product with The Hartford. Just before we start, I'd like a show of hands. How many people are with companies that either are marketing or

OPEN FORUM

are developing a last survivor product? (About half.) How about the same question applied to a first-to-die product? (Only about 10-15%.)

My discussion will cover four areas for each of these products: (1) a brief background on the market need; (2) different policy types; (3) riders and special features that are unique to these multiple life products; and (4) certain design characteristics that must be considered in developing a product.

LAST SURVIVOR

The market need for last survivor falls into two categories: estate planning and the split dollar/key man area. Estate planning is probably by far the most common. Since 1981, the Economic Recovery and Tax Act provided for an unlimited marital deduction to the surviving spouse on the death of one partner. This created a definite need for a benefit on the second death of a married couple. Since then, last survivor policies have been used extensively to fill that need in estate planning. Split-dollar and key-man-type programs are generally offered as employee benefits through the employer. It tends to have a low cost up front and the taxable income to an employee through such a plan is also low cost when using the government-provided P.S. 38 tables to develop the taxable income. In some cases on the key man, there's actually a need for the employer to have a benefit available on the second death of two insureds. You'll find some situations where the two insureds are not a husband and wife, where you actually have two key employees and the benefit is deemed more necessary on the second death. This market is composed of very wealthy, sophisticated buyers. Statistics from Life Insurance Marketing and Research Association in 1991 indicate that the average policy size was \$1.3 million and the average premium was \$20,000.

Two characteristics generally define the policy types that you'll see in the last survivor market. The first and most important is the treatment on the first death. This can be broken down into two main categories which are distinguished by what happens to the cash value and the reserves on the first death. The first category will show an increase in cash value and reserves. This is using the principle that there were two lives involved and you're basing your reserves on two lives. At the first death you then move to a single life policy, generally with a significant increase in cash value and reserves. The initial development of last survivor policies was primarily on this basis. Of those policies that have the increase on the first death, there could be two types of policies, but the most common is one where the premium continues up until the second death. There were a few policies that have been developed and available where the premium actually stopped on the first death. I think you can see the design problems that would be involved in coming up with a premium sufficient to pay for that increase and then having the premium stop at the first death. From a marketing standpoint that's obviously a nice feature to have, a policy paid up on the first death. The second type of policy is commonly referred to as a Fraserized approach (after the individual who developed the concept), where you turn your joint mortality into a single life decrement and you develop a cash value and reserve pattern based on that single life decrement with no change on the first death.

Now we'll discuss the types of last survivor policies. Participating whole life policies initially dominated the market. Lately you'll see that a lot of universal life policies have come out. The initial domination that the mutual companies had in this market with

PRODUCT UPDATE -- INDIVIDUAL LIFE

the participating policies generally relied on a concept of using term coverage combined with some permanent protection and using dividend options to replace the term coverage. One of the things to know to help understand how the last survivor market was shaped is that the mortality slope on a last survivor basis is very steep. As a result, the initial mortality costs are very low. Now, universal life policies have come into play. Their strongest point is the premium flexibility. You end up being able to offer the ability to vanish and/or have a low premium within the same policy type. Also, I should mention that the universal life products are almost always the second type of cash value pattern, the Fraser approach. It's very difficult to develop a universal life design where you have that increase in cash value and reserves on the first death.

Another type of policy form that you'll see is just a single life policy with a survivor purchase option, where the beneficiary is allowed to purchase a policy on himself or herself generally for a multiple of the base policy, perhaps up to five times. In effect, this is providing a low-cost last survivor policy with a liquidity need on the first death.

Now we'll talk about some of the riders and special features unique to the last survivor product. The three-year term benefit is designed, once again, to meet that estate planning need. One of the provisions in the tax law is that a gift made within three years of death is deemed to be in contemplation of death and the value of the gift is brought back into the estate. Some companies have a term benefit that's available, where effectively the amount of the benefit is just more than double the face amount in the first three or four years of the policy. The actual factor is the one that assumes that the entire benefit will be taxed at approximately a 55% tax rate. What's left over is the initial death benefit that was desired to meet the estate planning needs. The value of this type of rider is that often the last survivor sale takes time to develop. You have more than just an agent involved. You'll have a tax planner or financial planner or attorney. Often a trust is developed and the trust becomes owner of this policy. This takes time. This type of rider provides a way to have the policy issued before the trust is actually in effect. The policy then can be gifted to the trust with the rider paying off if death occurs within three years of that gift.

Uninsurables and substandard insureds present some concepts which are unique to the last survivor product. The last survivor market is a much older age clientele, with very high face amounts. Substantial underwriting is often involved and quite often you'll find a substandard insured. You may even find an uninsurable where there's a request for the last survivor policy, because of the fact that you have this financial planner who's saying last survivor is what his client needs to meet his estate plan's need. You can effectively cover a highly substandard or uninsurable on such a policy, because you're paying on the second death. Your product design would have to anticipate that basically you're providing single life coverage on the healthy insured. In designing for substandards or uninsurables, you generally will see age rating to be a more common practice than the flat dollar extra. It's administratively much easier to develop and psychologically, it's less damaging to the insured when they see an age rate up. One thing to take into account is that the underwriter may tend to look at the life expectancy of the entire policy and you might see that there's a little bit more liberal evaluation of the substandard insured. If that's the company practice, it obviously must be considered in the design of the product.

OPEN FORUM

The policy split feature has two main uses. One is if the estate tax law were to change. If the unlimited marital deduction is eliminated, the value of such a plan has been reduced significantly and many companies are allowing a split of the policy into two equal pieces. The second situation that will have the same effect is if the insureds were to be divorced. Many of these policy split option riders will allow for a split of the policy upon divorce. Generally there's a waiting period, anywhere from a couple of months up to two years after the date of the divorce, obviously to reduce the impact of antiselection.

You'll often see the market asking if there's a way to provide for change of insureds, especially in the key man arena. It's very difficult to accomplish without doing full underwriting on the new insured, and not a very common practice, but it does exist.

Paying a benefit on the first death is another requested option. There is a psychological benefit, if nothing else, on the first type of policies that I mentioned, where there is an increase in the cash value of the policy on the first death. Often a Fraserized policy will have a specific first death benefit, mainly to meet the cost of burial expenses or some liquidity need that may exist.

Another type of rider that you may see is an increasing death benefit of some sort, perhaps on a universal life, the option two, or increasing death benefit option. This is designed to keep up with the growth of the estate. A plan will often be sold anticipating that the estate will grow and that death won't occur for at least 10 years or more. Then it becomes an underwriting consideration whether the value of the insurance can exceed the current value of the estate.

A few of the design characteristics particular to this market which we will discuss are mortality, persistency, underwriting, retention, and reinsurance. Mortality is probably the most important of all that you would consider. As you begin to design the product, the most important characteristic to look at is the underlying mortality. There are three ways of trying to get a grasp on that mortality. You can go right to first principles and use an exact double life decrement and go through all the calculations. A way to give you roughly the same slope and pattern, but on a much easier basis to control, is to go through a joint equal age approach. It's much easier to do the combination of the two lives once you've put them on a joint equal life basis. An easier way, still, but which tends to have a little bit of a problem, is to go to a single equivalent age. Obviously that's easier, because everybody has single life mortality rates. The problem that may occur is single life mortality has a much flatter slope than joint life mortality on a last survivor product. Also, you would have to be careful that you might not be creating some reserve problems down the road.

There's been a lot of literature and a lot of studies in the area of grief mortality and a contagion factor that may result when you have two insureds related to each other. It's a very important item, but it's somewhat subjective in nature, since the studies are not particular to the insurance market. For example, there are documented studies that the mortality of a spouse is definitely increased upon the death of the first.

This increase is much higher for the males. It generally could last for as much as 10 years. Some of the things, however, that the studies ignore that may apply to

PRODUCT UPDATE -- INDIVIDUAL LIFE

insurance is the fact that last survivor has its own particular socioeconomic basis and that group has an inherently lower mortality to begin with. Also, one thing to take into account in the design is generally being married is not a mortality risk factor in overall insurance principles, but it has been determined that the mortality for married individuals in general is lower and that may help offset some of the grief or contagion factors that are part of this market.

With respect to persistency, companies are generally assuming very favorable persistency. This is a policy that's often sold with the death benefit in mind, not for the cash value growth and investment opportunities that result from other life insurance plans.

One last comment on mortality is, to date, there is not much experience in last survivor mortality. What there is certainly suggests that you can expect a very high variance on the mortality results, much higher than you would expect on a single life.

Some underwriting considerations that should be taken into account is you'll see a lot of variety on this throughout the market. Age and amount requirements could range anywhere from half to the total face amount for the two lives. As I mentioned earlier, there could be a tendency to be more liberal in the underwriting action on one life if it's substandard since you're taking into account the entire group of two. One thing to keep in mind is often last survivor policies, even the Fraser policies, will require notification upon the first death. The primary reason for this is that if there is to be an investigation of the underwriting process for incontestability purposes, you need to be notified of that first death.

Retention and reinsurance have as much variation as underwriting does – retention could be anywhere from 100-200% of single life retention. Actually, there are instances where retention is less than a single life retention. The items to take into account are that there's a fairly low profit margin in the last survivor product and there's a high variance in the mortality results and many companies will determine that they would rather retain a lesser amount than what you might otherwise expect. From the reinsurance standpoint, as the market has developed over the last 10 years, the reinsurers initially were very suspect of it. Again, on a YRT basis, they will primarily receive only the mortality results and there is not a lot of experience to date. As time has gone on, the reinsurers have become much more comfortable. You'll see much larger capacity out there today than there was just two or three years ago.

FROM THE FLOOR: How do companies underwrite for the three-year term rider?

MR. ROSCOE: Some companies I'm aware of will take a look at the financial need for such a rider. They would like to see a demonstration that a trust is being set up, but it does not exist yet, and there is a full intent to transfer the policy to the trust. Other companies just add that to the total amount and do a full requirement using the death benefit, including the three-year term rider.

FROM THE FLOOR: Is there any kind of phrasing you have to put some teeth into the policy if you discover 20 years down the road you have just received the second death notice and they've never told you about the first death, that you can rescind the contract?

OPEN FORUM

MR. ROSCOE: I can tell you that in our contract we just say that the owner is required to notify the company of a death within the first two years. Certain states have required a statement being sent to the owner on the second anniversary stating that neither insured has died and the owner is required to sign this.

FROM THE FLOOR: If you have both a policy split and the ability to have an uninsurable on a policy, how do you make sure that the policy with the uninsurable is not split and you are stuck with just a single life policy on an uninsurable?

MR. ROSCOE: Our company has both, and we have an underwriting requirement that the policy split option, which is a separate rider and not a contract feature, is not available on any policy where either insured is above a certain level. If you put the policy split into the contract language and not as a separate rider, you could have a problem.

FROM THE FLOOR: Do you need to know the timing of the deaths when using the Fraser mortality approach?

MR. ROSCOE: If you have a large enough body of policies that you're issuing, no, you do not need to know that. If you're only going to issue a handful, then it's up to each company to determine what is a large enough number of policies. The concept behind Fraser is that the entire experience of the block will be roughly the same as that of using a two-life decrement and keeping them separate and doing the increase in reserves. The Fraser approach, I believe, is approved by every state and there are no additional statutory reserve requirements if you are following the Fraser approach.

FROM THE FLOOR: Could you say a bit more about the reserve requirements? Can you use approximations of your joint mortality using either a joint equal age or a single equal age in your valuation basis?

MR. ROSCOE: I have to admit I don't know the full answer to that. Our company is using a Fraser approach and I do know that this is an acceptable approach. We have had to demonstrate to some states exactly how we're implementing that in our reserve basis, but it has been approved. My own opinion is that it's not acceptable for reserve practices, but I do not know it for a fact.

FROM THE FLOOR: Do you consider the change of insured to be a taxable event?

MR. ROSCOE: At our company we definitely consider a change of insured to be a new policy and any new policy would have taxable event implications.

FIRST-TO-DIE

The market need for this is fairly straightforward. You'll see that the most common market need will be in the buy-sell arrangement. The first-to-die product is very appropriate for funding cross purchase or stock redemption plans. Often you'll see that when the two insureds are covered separately, there is an over-insurance that does exist. I would say that the primary focus of this resurgence of the first-to-die market is for the buy-sell market. Combining a first-to-die policy with a last survivor policy will often meet the insurance needs of a couple more readily than having single

PRODUCT UPDATE -- INDIVIDUAL LIFE

policies on each. Using a last survivor combined with a first-to-die, you now don't have to worry about which one will predecease the other.

Characteristics distinguishing the policy types are generally the number of lives that are being covered. Two to four lives is the most common. Generally the reason for going above two lives is to cover the business partnership arrangement. Up to four is the most common. Hartford's policy will cover up to eight lives. We feel that in general we'll see very few above four. We rely heavily on our illustration system which is able to predetermine in advance whether a group is eligible for those eight lives, but eight lives is not going to be the most common event. As far as death benefit pattern goes, *once again the most common is the level death benefit, with all insureds covered for the same amount.* However, that is not the most common arrangement in the marketplace where people covered under buy-sell arrangements own exactly the same percentage of the business and many of the first-to-die policies that are out there now can provide a varying death benefit on each partner in order to more appropriately match the need where we have a cross-purchase or a stock redemption plan. Just to let you know from my own experience, I believe that the largest amount of effort in the design process will be concentrating on how to handle varying death benefits.

FROM THE FLOOR: Do you find that sometimes two single policies on two lives could be cheaper than your first-to-die policy?

MR. ROSCOE: *One of the things our illustration system does is check whether two single life policies provide a better deal than the first-to-die. If so, then the first-to-die is not available. That's a very real possibility that you can have, especially with uneven death benefits. If you have a young insured with a very low amount and an older insured with a very high amount, you may find that you're paying more than those two could get their policies for on a single life basis.*

I'll now mention a few of the riders and special features found in this market. A survivor purchase option is probably the most common and demanded feature, especially if you're covering more than two lives. If you have four partners and you have a death of one and the benefit is paid, the other three still own the business, and they're probably going want to come right back and have a new policy without having to go through underwriting. Obviously the first thought that should come to mind for most design actuaries is the possibility of antiselection. To cover that you would either have to build the cost into the rider (if your option is part of the rider), build the cost into the new policy, or you could put some significant protections into your rider or contract. For example, you could require that all surviving insureds be covered under the new policy. Simultaneous death benefit is somewhat of a subset of the survivor purchase option. That is, generally you give the insureds 45-60 days to convert to a new policy. If you have a death within that 45-60 day period, you would assume that they did convert and pay a second death benefit. Even without a survivor purchase option, if you have a catastrophic accident and you do have legitimate simultaneous death, you'll probably want a provision in the contract that defines what the benefit will be. Often, it will be limited to two times the face amount. It's up to your own company's practice to decide how you want to handle it.

OPEN FORUM

Change of insureds is a rider commonly requested by the market. This one might be more common in the married couple arrangement than I would expect, but I believe it's there more for the buy-sell arrangement if a partner sells out and another one comes in.

MR. FORREST A. RICHEN: Has there been demand for any other sort of restructuring? Suppose the partnership just downsizes. What if there were five partners, and now there are four.

MR. ROSCOE: Yes, that is common. At our company, we will handle these requests. We haven't issued enough policies for a long enough period of time to actually have any come into play yet, but if anyone requests a change from five down to four, we'll handle it on a case-by-case basis. If you think about it, you're reducing the number of insureds on the policy, so you're reducing the risk to the company.

And, finally, some of the design characteristics: mortality, underwriting, and reinsurance. From a mortality standpoint, what we've done at our company is gone straight to first principles. It tends to get very complicated, especially when you're building up to eight lives, but it is possible if you have a good system. If you don't have a good system, the next step you can take is that it's actually not that bad to come up with some reasonable approximations that allow you the much simpler approach to come up with a joint mortality. You'll find that the discount that's provided using multiple lives is not that significant and it's easily approximated. Finally, one way to get a comfort with the underlying mortality is try to translate your group into a single life equivalent on each basis just to get a feel for life expectancy. One of the principles that we follow is we would like our groups to have the life expectancy be no shorter than that for an individual age 80, which is our maximum issue age on any single life policy. Once again, we rely on our illustration system to help us out with that. From an underwriting standpoint, you have to be very careful of this. I would suggest, if at all possible, to be conservative in the underwriting as you're now combining lives and combining the mortality. It's not like last survivor and it's important to be conservative on this basis.

From a retention and reinsurance standpoint, you're probably going to need very close interaction with your reinsurers to design such a product, especially when you take into account things like the survivor purchase option, where the policy that's issued today may actually pay four or five death benefits. You need a very close working relationship with the reinsurers to determine exactly how these will be handled.

One last final comment relating to both first-to-die and last survivor, is that a very good test that you might want to do relates to a question that was asked earlier. If your company offers both products, last survivor and first-to-die, take two insureds and see what the cost is for single life policies on each versus buying a last survivor/first-to-die combination for the same death benefit. If you find yourself providing either a lower cost or a higher benefit, you will be selected against from a pricing standpoint, if not from a mortality standpoint.

MR. STEPHEN H. FRANKEL: You mentioned that your primary market was buy-sell. One of the authors in the *National Underwriter*, an agent in a marketing firm, kept

PRODUCT UPDATE -- INDIVIDUAL LIFE

talking about the market. I believe he used some phenomenal number, like 20 billion or 20 trillion as a total market figure. But as I remember, 90% of that market was two-income families, where the cost of the first-to-die would be cheaper than the two single lives and he said that for about 65% of the total premium this made sense. Could you comment? Has your company even looked at whether this is a market you're going to target and do you have sales materials for this market?

MR. ROSCOE: I believe Bob Gatewood wrote that article, and if I remember right, the number was in the trillions, not in the billions. It was a phenomenally large number and he did say that something like 90% of it was two-income families. As I had mentioned, most of my comments on first-to-die are particular to my company and the market that we tend to go after is generally the small business owner and so for us, the buy-sell arrangement will be the primary market. I do tend to agree with some of the thoughts that Mr. Gatewood espoused in that article, that the two-income family will be a very huge market. The two-income family is there, it's legitimate, and maybe in the future we'll be in that market as well.

MR. ROLAND R. ROSE: Is your particular first-to-die product a universal life or a par whole life design?

MR. ROSCOE: Depending on who you talk to, it's an interest-sensitive whole life or a fixed premium universal life, but it's not a par whole life policy.

MR. ROSE: Which is more common?

MR. ROSCOE: In the first-to-die, the only policies that I'm aware of are universal life. I have not run across any par first-to-die policies.

FROM THE FLOOR: Phoenix Mutual has a participating feature for our first-to-die policies.

MR. DAVID W. GROATHOUSE: Do you have special concerns about substandard on these multilife first-to-die policies? Did you run into special situations in getting the policies approved?

MR. ROSCOE: We had huge considerations about substandard and our initial offering of first-to-die actually did not allow any substandard insureds at all. Strangely enough, we were still able to market it. We do permit substandards now and it's a fairly technical approach, but we are once again relying on the illustration system. Our marketing and distribution force is well accustomed to this approach. This market is a fairly new one and we seem to be successful in allowing the illustration system to reject a policy if one of the insureds is above a certain substandard rating. What you have to take into account with substandard ratings and why I need to rely on something like the illustration system is it's heavily dependent on who the other insureds are and what their ages and ratings are. You could take two 45-year-olds and have them both be substandard and have no problem. If you have eight 65-year-olds and one of them is substandard, you've probably lost the case.

As to approvals, we are not approved in every state yet. There are definitely some problems. Some states have no idea what we're talking about. I've had to make

OPEN FORUM

several visits to some of these states to work them through. I have not found any state that's unwilling to listen.

MR. DOLL: There are two proposals to change the standard nonforfeiture laws, one for the life nonforfeiture law and one for the annuity nonforfeiture law. The prognosis is that these proposals are both expected to be adopted by the NAIC in December for exposure only. So, these are not even yet at the final proposal stage, but it's expected in December that they will be formally exposed for comments. I'll provide some background on where these proposals have come from and briefly describe the provisions that are currently in the drafts.

The life insurance nonforfeiture proposal has a very long history. If I had more time I would start with the Armstrong investigation. But since we don't have much time, I think I'll start with the introduction of the universal life model regulation in the early 1980s. At that time, several regulators had problems that the universal life nonforfeiture regulation didn't go far enough with regard to universal life nonforfeiture. The specific problems were as follows: (1) the regulation didn't restrict cost of insurance charges to the nonforfeiture mortality; (2) there were concerns that for fixed premium universal life, there weren't sufficient restrictions on the surrender charges; and (3) later, there were concerns about the development of persistency bonuses and how those should be regulated for universal life.

In the mid-1980s, an Academy Task Force that was set up to address universal life nonforfeiture came out with a proposal that recommended limiting mortality charges. The regulators were not happy with that, so that report didn't change anything. Subsequent to that task force, the NAIC's Actuarial Task Force requested that the Academy set up a committee to address the proposal to change the Standard Nonforfeiture Law for life insurance. This was supposed to address universal life, but it was also supposed to be broader and address nonforfeiture for all life products in general. That committee came out with a proposal that pretty much kept the current structure of the Standard Nonforfeiture Law in place for universal life. The regulators were not happy with that either. But as part of the report of the Academy's task force, there was an appendix in which the committee said, "If we had a retrospective approach to regulating universal life nonforfeiture values (which is what the regulators had asked for) this is how it might work." So there was at least the genesis of a structure in place.

The regulators, now having gone zero for two on having an Academy body come up with a proposal that they liked, decided to form their own task force. So we now have a task force of the NAIC's Actuarial Task Force that is drafting this newest proposal to change the Standard Nonforfeiture Law. This proposal has four main changes to the current nonforfeiture law: (1) new rules for universal life; (2) a change in interest rate risk adjustment; (3) a change to the smoothness test; and (4) an effort to regulate persistency bonuses.

I'll address each one of these in more detail, and then I'll talk about a parallel event that's going on with the Academy life committee that's trying to address the problem with smoothness in cash values. With regard to flexible premium universal life, the proposal that's in the draft right now would define minimum values in terms of a retrospective accumulation and each of the components of that accumulation would

PRODUCT UPDATE -- INDIVIDUAL LIFE

be regulated. Interest rates would be subject to a minimum interest rate of 3% in any year, which is not cumulative. If you credit 10% one year, you still have to credit at least 3% in the next. The cost of insurance charges would be limited to a nonforfeiture basis, although interestingly there still would be no limits on charges for riders on universal life policies.

The initial acquisition expense allowance for a flexible premium universal life would be the same as the current whole life initial expense allowance. Maintenance charges would be limited to 12% of all premiums, plus \$6 per policy per month, and that \$6 would be adjusted in the future based on the CPI. If you didn't charge the maximum acquisition expense allowance in year one, then that excess could be carried at cost in future years, but it would have to be graded off over 20 years. So if you did it in the form of a surrender charge, the surrender charges would have to be amortized at least straight line over 20 years.

The result of this particular type of structure is that universal life products will have a maximum gross premium for a given benefit structure. That will not be true for nonuniversal life products. Nonuniversal life products will have minimum values the same as they have now. Fixed premium universal life would have minimum cash values or minimum nonforfeiture values equal to the higher of the values for our flexible premium universal life or traditionally calculated values.

Most current flexible premium universal life products would easily satisfy the proposed nonforfeiture requirements with the possible exception of the cost of insurance rates, although even now there are some states that limit cost of insurance rates to a nonforfeiture basis. Many fixed premium universal life products, though, have cost of insurance charges higher than the nonforfeiture basis and many of them have surrender charges at some durations that are higher than a traditional whole life initial expense allowance. Those products would not comply with this proposed nonforfeiture law. Now as I said, traditional products have not been changed, but there is one change for indeterminate premium whole life products other than universal life. The provision is almost the same as in the current law, with one small change that you might not notice. The new provision would say that indeterminate premium products other than universal life (basically indeterminate premium whole life) must be consistent with the principles of the Standard Nonforfeiture Law as determined by regulations and must be approved affirmatively in every state. So for states that right now can be deemed approved or can be just filed and issued, you couldn't do this under this law for indeterminate premium whole life plans.

Because of concerns about the solvency risk to life insurance companies from having book value cash surrender values, there were proposals to allow life insurance products with no cash surrender values, only paid-up values. The regulators did not go along with that idea, but they did go along with a suggestion that some sort of adjustment be allowed to be made to cash surrender values to protect against the C-3 risk. This is called the "adjustment to cash surrender value for a change in interest rate environment." This would apply to all products, traditional products and universal life products, but it would be optional. Companies would not have to do it. You could adjust the cash surrender values by one of only two methods. The first method is very simple. It would be a fixed charge of the paid-up value of up to 10%. The second method would not have the 10% limit, but it's both an up and down

OPEN FORUM

formula. There are some characteristics of this formula given in the proposed law, but effectively this would require a regulation to be promulgated, and a regulation has not been drafted yet. Some of the things that this regulation would have to include is that whatever formula we have would have to provide equity between persisting and terminating policyholders and that a cash surrender value without an adjustment has to be provided at least once every 10 years.

I don't know how many of you are familiar with the smoothness test. The current smoothness tests are in section eight of the Standard Nonforfeiture Law. There is a requirement that cash values grade more or less smoothly over periods of at least five years. There's always been some question about how universal life products, with their flexible premiums, can be mechanically shown to comply with that test and this law would clarify that the test is applied to universal life products, assuming a level premium paid on the universal life that's sufficient to mature the contract under the product guarantee. There's one additional factor, though, that's been added to what's currently in the Standard Nonforfeiture Law, the test premium percentage. The percentage of gross premium that gets you to the nonforfeiture net premium cannot change more than 10% in the five-year periods that you're doing the smoothness test over. There are two results that this will cause. The first result, including universal life in the smoothness test, will eliminate cliff surrender charges. So any surrender charges that are at the maximum level for 10 years and then go from the maximum level to zero in year 11 will be eliminated by the smoothness test. If there's a significant change in the surrender charge, it would have to be graded in over at least a five-year period. The second point about the percentage change not being greater than 10% each 10 years might not even allow you to grade the surrender charge off over 10 years, although I haven't tried to do any numerical examples to see just how much impact that has.

Many people believe that persistency bonuses have nonforfeiture implications in that people who terminate immediately before a persistency bonus is paid are losing some sort of equity buildup in the policy, so the regulators would like to address persistency bonuses. There are two possible ways they've thought of to do it and the current draft of the nonforfeiture proposal has both ways. The first approach is to attempt to define persistency bonuses and then restrict them in some fashion. Now it's very difficult to define a persistency bonus, because they want to distinguish persistency bonuses from normal nonguaranteed elements and where do you draw the line between your normal current mortality charges and something that's called a persistency bonus? The wording in the current draft is as follows: "An enhancement is an additional policy value or benefit which may be granted to increase the amounts that are otherwise guaranteed under a life insurance policy. An enhancement does not include a recurring addition credited annually or more frequently than annually, such as an annual credit including after a given duration, an annual interest credit of 0.5% or less, that arises from the use of interest, expense, and mortality assumptions that are more favorable than contractual guarantees."

They're trying to continue to allow current mortality charges, current expense charges, and interest crediting that's different than the guarantee. They're also trying to allow for interest credits after a certain duration where the interest rate spread gets reduced 0.5% or the credited rate goes up 0.5%. It's still sort of a fuzzy definition.

PRODUCT UPDATE -- INDIVIDUAL LIFE

What kind of restrictions would they have on these persistency bonuses? Well, if they're nonguaranteed, the restriction being considered is that you can't illustrate this nonguaranteed persistency bonus if it would be paid more than 12 months after the time that the illustration is being made. There's some feeling that because of the vagueness of the persistency bonus definition and also because of considerable opposition to restricting persistency bonuses like this, that having this persistency bonus restriction in the proposed nonforfeiture law change will hold up the entire law. The alternative suggestion was to put in a provision to allow the insurance commissioner to promulgate a regulation to address equity between persisting and terminating policyholders for nonguaranteed elements. How far that will go either, that's awfully broad authority and there have already been complaints objecting to the fact that this would give *carte blanche* authority to the commissioner or to the department to regulate, dividend scale changes. So it'll remain to be seen where this will go.

The Academy Life Committee has a task force that's chaired by Helen Galt. This committee was set up, at the request of the NAIC's Actuarial Task Force, to address misleading illustrations, specifically to address the pattern of values on illustrations. This gets to the persistency bonus issue. They're considering additional interrogatories to the annual statement that would address this issue and they may have a proposal on this by year-end, it probably won't be in 1992 annual statements. They're also looking at various smoothness tests on illustrated values, trying different formulas to come up with different benchmarks based on a sample set of existing products. The idea would be that if the product fails the smoothness test, certain additional disclosure might be mandatory. This work is in the preliminary phase.

Finally, we also have a proposed change to the annuity nonforfeiture law. This was the result of an advisory committee to the NAIC's Actuarial Task Force. This is different from an Academy task force in that it's reporting directly to the NAIC. This committee was asked to address the issue of two-tier annuities. These are annuities where there would be two different interest rates, a higher interest rate credited to an account value that's used only to annuitize at maturity and a second lower interest rate that's used to determine the cash surrender value. Frequently, the difference between the account value or the annuitization value and the cash surrender value continues to grow until maturity and at maturity can be very large. The regulators believed that there were nonforfeiture issues here as well. First of all, they believed that the person who cash surrendered would be giving up equity in the policy or forfeiting his equity in the policy. Second, they were concerned about the policyholder being locked into perhaps unfavorable annuitization rates at maturity.

This advisory committee, chaired by Howard Kayton, has proposed two rules to be addressed for annuities. One rule would be that the cash surrender value could never be less than 90% of the account value, this would require the difference between the two tiers to never be greater than 10%. The second rule is that the ratio of cash value to account value may not change by more than 2% a year. Basically eliminate cliff surrender charges and is also meant to address persistency bonuses. These rules would cover future guaranteed values only, so nonguaranteed persistency bonuses right now under the current proposal would not be addressed at all. The NAIC's Actuarial Task Force does want to address nonguaranteed persistency bonuses on annuities as well. If anything will be added to that proposal by December. They'll probably go ahead and expose what they've got so far.

