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Current Issues in Life Insurance Pricing

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Summary: Product pricing in today's business environment requires actuaries to be knowledgeable in an ever-expanding group of issues. In this session, the panel explores the emerging issues impacting the pricing of individual life and annuity products.

Mr. Craig W. Reynolds: The pricing environment has been anything but dull in the last few years. There have been a host of new and somewhat radical products. Equity index annuities (EIA) are a classic example. The term market has also seen a great deal of new innovation related to preferred underwriting and new reserving requirements. We have recently been dealing with a very volatile interest rate environment, which helps to make some of our product development interesting. There's been a lot going on with reserving; XXX and GGG are good examples. Down the road we may be seeing a new nonforfeiture law. I'm sure that will create some interesting product development and pricing issues.

Our panel is going to address a range of issues. We'll be talking about general pricing issues, and what it's like to be a pricing actuary.

Ray DiDonna will discuss term enivronment, that an issue which has pricing implications. We've been seeing a lot of companies making markedly more aggressive mortality assumptions. That obviously has some impact on product pricing.

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We'll also discuss some issues related to pricing assumptions, reinsurance, and how to measure profitability—i.e., what's important to company management from a pricing point of view?

Our first speaker will be Tom Bakos from the Guardian. Tom is vice president and actuary for the Guardian. He's responsible for all actuarial work associated with the individual life insurance products, including product development and pricing, reinsurance, financial reporting, compensation and fringe benefits, illustrations, experience analysis, and valuation.

He's been with the Guardian for more than eight years. Prior to this he held similar positions for a smaller mutual company and a large and small stock company. He's been an FSA and an member of the American Academy of Actuaries (MAAA) for 25 years. He has an occasional column published in *Contingencies*, and he's participated in various SOA meetings as a panelist or a debater. Tom will present the viewpoint of a practicing pricing actuary.

Mr. Tom Bakos: We are told that product pricing in today's business environment requires actuaries to be knowledgeable in an ever expanding group of issues. We as a panel are expected to explore these emerging issues as they apply to individualized and annuity products.

I think it is important to emphasize that there are many things that haven't changed. Clearly when an actuary is involved in pricing a life or annuity product, he or she is operating under some constraints. The pricing task involves not just producing a product that is profitable. If profitability measured according to some agreed upon standard were the only objective, then the actuaries job would be truly easy and stress-free.

Profitability is not the only characteristic that a product must have. It must also be competitive. The key word is "also"—implying that a product must be profitable and competitive at the same time. A competitive and profitable product is now a nearly oxymoronic concept. I think oxymoron is a wonderful word. Maybe some of you agree. I was introduced to the word by an older fraternity brother while I was still a pledge. An oxymoron is, "a rhetorical figure in which incongruous or contradictory terms are combined."

The business environment that the pricing actuary finds himself or herself in makes competitiveness and profitability almost incongruous or contradictory features of the same insurance product. The need to be competitive has gained the upper hand in recent years, as products are more readily compared by easily attainable, nearly instant illustrations. This is particularly true with respect to term insurance. In order

to survive and succeed, you must enter the conflict with the mind of a warrior and have no fear of failure. It is a struggle where the marketing masters will tell you there is dishonor in avoiding the conflict and the glory of battle. Whether you succeed or fail, meet the pricing actuary of the future and the present.

Insurance companies compete in the same way that every other company competes. There are two general approaches. You can either do more of the thing that everyone else is doing, so that your product compares more favorably, or you can do something entirely different and avoid a comparison altogether. If you are faced with a 10-year product that guarantees premiums for 10 years, develop a 15-year term product with lower premiums and guarantee them for 15 years.

If you don't think you can compete with the traditional or variable life products in your market or the variable annuities offered by some companies, be the first company in your market with an equity index product. Do something different. You'll be told by your marketing departments that you must do these things to be competitive. You'll be told that, "Other companies have found a way to offer these products profitably because there are other companies with products like this in the market. They must have found a way, some magic way, to do it profitably, or they wouldn't be offering them. You must hire their consultant, or deal with their reinsurer to find out how."

Profitability has become such an unnatural part of the product that some companies develop that states have had to pass laws or adopt regulations requiring standards. The NAIC illustration model regulation, effective now in many states, requires that nonguaranteed elements be based on a disciplined scale, and that products illustrated satisfy a self support test. The modified New York Section 4228, which regulates the compensation with respect to New York licensed companies, will become effective on January 1, 1998. It introduces some flexibility in the way compensation can be paid but requires that all products offered for sale by a company be self-supporting. This self-support is to be based on, "reasonable assumptions as to interest, mortality, persistency, taxes, agent survival, and expenses resulting from the sale of the policy."

How does the pricing actuary deal with this oxymoronic state? How does the actuary develop and price a competitive and profitable product? Lets examine what we have to work with. First, what is profit? My ultimate definition of profit is as follows: profit is everything you have left when you're through. You all know that there are a variety of ways to measure profit. In fact, one of the objectives of this session is to impart to you an understanding of the role of the various profit measures currently in use. I think that the only truly accurate way to measure profit is retrospectively. As per my definition, you would simply wait until every piece of

business you ever wrote was no longer in force, and all your liabilities were reduced to zero. Whatever you have left is your profit.

That is not, I admit, a very practical way to measure profit. Usually you want some sort of idea of what might happen before it's too late, so you construct through an assumption setting process your vision of what the future might look like. Based on these assumptions, you estimate or project what your profit might be. In one way or another that is what we're doing when we price an insurance product. In order to have a profitable product you have to collect enough premium to pay all your expenses, taxes, surrender benefits, dividends or excess interest rates, and death claims, and have something leftover for profit.

Table 1 shows the relative dollar relationship between the various pricing assumptions. This happens to be for a participating whole life insurance policy, but you can probably figure out how to do it on your own for another product type. Essentially this shows on average how a dollar of premium, plus the investment income earned on that dollar, is spent over the lifetime of the whole life policy. There is some variation by age.

TABLE 1
PREMIUM AND INVESTMENT INCOME PER $1 OF PREMIUM DISTRIBUTED BY USE

INCOME			BENEFIT/COST/PROFIT DISTRIBUTION OF INCOME					
Issue Age	Premium Dollar	Invest. Income	Exp. & Tax	Surr.	Div.	Death Claims	Profit	Total
25	1.00	0.31	0.43	0.42	0.32	0.10	0.04	1.31
35	1.00	0.32	0.38	0.41	0.33	0.16	0.04	1.32
45	1.00	0.28	0.35	0.33	0.33	0.23	0.04	1.28
55	1.00	0.22	0.33	0.24	0.32	0.29	0.04	1.22
65	1.00	0.18	0.34	0.18	0.28	0.34	0.04	1.18

Table 1 only shows how the premium dollar would be spent if the assumptions I made in creating it were exactly realized. Note that the mortality element requires a relatively small part of the dollar, and that profit is an even smaller amount. This product was priced to provide a 4% of premium profit. Lets suppose that you have just finished developing and pricing this new whole life product. You have made what you believe to be reasonable assumptions based on your actual constraints and agent compensation plan. You have priced to satisfy your company's profit objectives. You present the new product to your company's marketing area and they tell you it is not competitive and it will not sell. They point out competitors with lower premiums, longer guarantees, or better-looking illustrations. What do you do?

You know that you haven't made any errors in your pricing calculation. You even got help from both Tillinghast and M&R to verify that. The first thing to do is reexamine your assumptions. Maybe you've been too conservative. You may be able to get more competitive by stretching a little in the areas of expense, mortality, persistency, or interest rates. There's no point in looking at profit because, number one, you're required to at least think your product is profitable, and, number two, there isn't much there to work with. The important thing to remember in going through this exercise is that you aren't actually going to affect the actual profitability of the product by changing your assumptions. Remember my definition—profit is what you have left when you're through. Just changing your perception of the future by changing your assumptions is going to have absolutely no affect on what actually happens.

If you revise your product to make it more competitive and justify that revision based on these assumption changes, (for example, say you lower the premium) there's one thing that will happen. Your profit will be reduced from whatever it would have been before. If we assume that our original assumptions were best estimates and reasonable, based on our actual company experience, then the only way to make a change in them without affecting the actual profitability of the product we are pricing is to introduce some process, design change, or white knight that will actually operate to improve them. Then we can reflect this improvement in the product and make it more competitive.

If you have this philosophy for addressing price competition in your market, and it doesn't work, then the only other way to meet your competition is to make the same mistake your competition made. However, I wouldn't advise this. The ultimate measure of competitive success is survival. What can you do that will have an actual impact on your experience? My first approach is always to suggest a reduction in compensation. Sometimes it even turns out that this is what your competitors are doing. Your marketing department just didn't tell you or didn't know.

Something has recently happened that will affect companies doing business in New York or under the jurisdiction of New York state law or regulations. Effective January 1, 1998, New York Section 4228 has been modernized. Essentially, this modernization means compensation plans for New York licensed companies can be more flexible in the payment of compensation. Some limits have been increased, and filing for compliance will be simpler and easier. At least those are the anticipated results.

In particular, asset-based compensation on life and annuity contracts will be allowed. One of the tradeoffs for this improvement is a great reliance on the

company to conform to the rule of the law. An actuarial memorandum certifying self support will be required as part of the filing of the plan of compensation. There's much more in 4228 then just the elements that might affect the product development.

What else can you do to make your product more competitive? There are many other approaches you can take that are fairly obvious. They don't necessarily fall under the category of current or new issues. A couple of things, however, have recently started happening that affect the mortality assumption. One thing that you can do to improve the mortality in your best underwriting class is to tighten up the requirements to qualify for that class. That has introduced a very preferred or superpreferred underwriting class.

Overall the mortality experience of your company won't have to change; you will just be dividing your applicants a little differently. Fewer will qualify for the super preferred class, and more will qualify for the less preferred classes. Your company mortality average won't have to change at all. It's the closest I think you can get to magic.

However, there are some drawbacks. While you have a more competitive top class, you will have more disappointed applicants. In fact, you may find your not-taken rate going up, fueled by those disappointed people who find they're only preferred and not very preferred, and who choose to go someplace else. Therefore, total sales could go down, or at least new premium could go down. For a profit that stayed constant at the percent of premium, total profit was therefore decreased.

Another thing to consider is that while you may be able to illustrate better top class to top class on a one-on-one comparison basis, in an industry-wide comparison you may fall back. This is because if you only expect say, 30% of your applicants to fall into the new very preferred class, instead of the 70% who qualified for your old preferred class, this top class will no longer qualify as the standard class normally made in industry-wide comparisons. It is not your largest class anymore. For a variable product, this change could affect the rates shown in your prospectus.

There is a wonderful way to affect your mortality assumption. This is the white knight solution. If you can find a reinsurer willing to quote you a reinsurance premium that's less than your assumed mortality, you can substitute the reinsurance rate for the mortality. You can feel comfortable in doing this if you can get the reinsurance rate guaranteed, at least for business already written. Get the longest reinsurance contract determination notice period you can.

The only other approach I can think of to be more competitive is to change what it means to be competitive. That is, don't play the price competition game. Do what is done in other industries. If you can't sell speed, sell economy. If you can't sell low price, sell resale value. If you can't sell style, sell durability. If you can't sell the same old dull thing, repackage and sell pizzazz.

Mr. Reynolds: Several years ago there was a commercial on television that I saw for one of the investment bankers. The tag line of the advertisement was one of the best that I've ever heard: "Sometimes we realize that the best way to beat the competition is to buy them. I think that's another solution for eliminating the competitive issues that Tom brought up.

I think there are nearly 1,800 insurance companies in the U.S. It's tempting to believe that of those 1,800, if you look in any individual market, the number 1 company in terms of price must be doing something wrong. If they were doing it right, everybody else would be doing the same thing as well. They're not. The number one guy must be making a mistake. I think there's no doubt that some of the time that's true, if not most of the time.

It's also important to remember that in some industries, it is true that the leading company is the most profitable company. That is because they're the leading company, they have volume, and they have more so they can spread their expenses around. They have more efficient operations. That is what allows them to sell at a more profitable basis. We have to distinguish which is which.

Mr. Raymond E. DiDonna: I'm going to discuss the impact of reinsurance on individual pricing. I've spent the last 10 or 15 years working for large mutual life insurance companies. Some of that time has been spent in the pricing area. What I've observed is that there's been very little explicit reflection of reinsurance cost in pricing. Typically there's some sort of factor, but it is buried deep within the asset shares. Clearly it has not been given much focus. This is perhaps appropriate for large companies with a large retention. Smaller companies historically have spent more time understanding the cost and benefits of reinsurance programs because it may have more significant an impact on these companies.

We see the current environment changing. Reinsurers are bringing more to the table than in the past, when their primary service was capacity. Many reinsurers are having substantial impact, not only on smaller companies but on larger companies as well. I want to talk about four major impacts reinsurers are having on the marketplace. Those impacts include: retail price, the price that actually gets to the consumer; product design and development; new products and markets; and expenses and what I call efficiency of operation.

Let me start with retail price. I think this is a critical impact. Tom alluded to it and I'll spend quite a bit of time on it. I imagine many of you are well aware of the current reinsurance and pricing environment over the past few years, which has been bombarded by severe price competition. This severe competition has allowed direct companies to view or, at least, look at reinsurance as a source of profit rather than a cost of prudent risk taking. A very popular reinsurance arrangement being utilized today is what we call a first dollar quota share arrangement. I'm going to refer to that sort of arrangement several times, so let me define that for you. A first dollar quota share arrangement is defined by the complete sharing of risk between the reinsurers and the direct writer on all policies rather than the direct writer just reinsuring above the excess of their retention.

In a typical retention arrangement, the life policy comes in the door of the direct company. There is a full assumption of risk by the direct company up to their stated retention limit. On excess risk above their retention, the business goes into the reinsurance pool needs to be split by those carriers on some basis. Lets compare that to a first dollar quote share arrangement. A life policy comes in the door, and is immediately split between the direct writer and the reinsurance pool on some basis.

Sometimes the sharing of risk occurs over what I'll call, a minimal retention; not the company's normal retention, but a minimal retention, so as to exclude smaller policies perhaps due to very administrative purposes, or perhaps if the smaller policies are not blood-tested. For example, a company may retain all risks on policies issued below, lets say, $100,000. For all policies at or above $100,000, there will be a first dollar quota of sharing of the risks with the reinsurers.

These days, in a first dollar quota share arrangement, the reinsurers typically hold the lion's share of the risk. These days that's 75–90% in many cases. There are several advantages to direct writers for entering into these sorts of arrangements, and I want to address them.

First, stability of mortality costs. If the direct writers are ceding a significant share of the risk to the reinsurers at a fixed cost, what they've done is eliminate the volatility of much of their claim costs. That translates into a better predictability of profits, which is so important to companies these days.

Second, less capital is required. Again, if you're ceding a significant share of the risk to the reinsurers, the direct writer need not hold required capital on that share of the risk. Finally, there are more competitive reinsurance rates. We're seeing very competitive reinsurance rates in the marketplace being offered to direct writers to enter into first dollar quota share arrangements.

Very competitive reinsurance rates are making it possible for direct companies to leverage their profits. The consequence of that is more and more competitive retail pricing for the consumer. Let me describe how leveraging is working. As Tom said, reinsurers in many cases are offering prices that are actually below direct companies' mortality assumptions. This creates for the substantial portion of the business that's ceded to the reinsurance pool a profit for the direct company by what you might think of as a mortality margin. You can almost think of it as fee income to the direct writer for passing the business through.

On the small share of the business that's retained by the direct company, there may be small profits or perhaps even losses due to very competitive retail pricing. These losses are largely outweighed by the mortality spread profits. Obviously, the larger that margin and the larger the share that's ceded to the pool, the larger the leverage.

Finally, for the direct writer no capital is required for that share of the business. I've talked about first dollar quota share arrangements from the direct writer's perspective. Let me now talk about the reinsurer's perspective because there are advantages to these sorts of arrangements for them as well.

There's a much better spread of risk available to a reinsurer on a first dollar quota share arrangement than what's normally available on an excess of retention arrangement. Remember on an excess arrangement the reinsurers are only seeing shares of larger policies, over retention policies. On a first dollar arrangement the reinsurers are seeing shares of every policy, and that's a dramatic difference in terms of spread of risk. It is very desirable for reinsurers to enter into one of these arrangements.

Another advantage is that first dollar quota share arrangements generate much larger volumes for the reinsurers. This allows them to spread their expenses over a larger base; thus lowering unit costs. The combination of these two is helping generate very competitive reinsurance rates these days. Tom has alluded to this competitiveness. Let me give you my thoughts on some of the origins of current reinsurer price competitiveness.

First, recent trends in mortality. Recent mortality experienced throughout the industry has been very good, excellent in fact. We're seeing dramatic improvements in many cases. This is due, at least in part, to the tighter underwriting standards that have been employed in recent years. That includes more blood testing and at lower limits. Well-documented studies have shown great experience for reinsurers. I think reinsures are competitive because they observe the experience of so many different companies, and they are able to get a greater

perspective of the industry. They are in a better position than any single direct company to readily institute these improvements in pricing.

Second, the revolution of multiple underwriting classes. There's certainly been a proliferation of underwriting classes in recent years. A number of years ago we started with preferred nonsmoker, we moved to preferred smoker, and now we have superpreferred classes, elite classes, and select classes. People with classes all over the place. It is similar to mortality because the reinsurers have a global view of industry. They perhaps are better positioned than any particular direct company to understand the preferred criteria and their impact on aggregate mortality. This may lead reinsurers to be more aggressive when setting their assumptions with regard to splitting classes. Then direct writers may not have the experience splitting the classes.

Third, first dollar quota share arrangements with the better spread of risk and the lower unit cost. Having said that, I'm not quite sure in my own mind what came first in this environment—the competitive reinsurance rates or the first dollar quota share arrangements. One thing is certain—the two are feeding off one another, and there is a snowball effect. More first dollar arrangements are being entered into more competitive reinsurance rates.

The second impact that I want to talk about is product design and development. Historically, smaller companies have relied on reinsurers to provide product development type consulting services, along with capacity. Reinsureres, again because their global view of the industry, are thought to be on the forefront, in terms of marketplace knowledge, relating to mortality assumptions and preferred classes. Smaller companies, particularly those with less resources, have relied on reinsurers for this kind of support.

The current trend is that not only small companies but large companies are developing formal product development partnerships with reinsurers. I want to talk about how those are structured. We're seeing the reinsurers designing and pricing the products. Typically, we're talking about level-term products because they are the current hot product. Clearly we could be talking about any product or product line in an arrangement like this. There's no upfront cost charged to the direct writer for this service. However, a substantial portion of the risk is typically ceded to the reinsurer, as payment, so to speak. Again, that would be on a first dollar basis or a first dollar quota share arrangement.

What we're observing is life companies, even the large life companies, are finding themselves agreeable to ceding large shares of the risk. First, because they're getting their products priced at no cost, which may be an expense benefit. Second,

the reinsurance rates remain very competitive. Third, the products they're introducing may have new preferred guidelines or perhaps additional classes with which they're not familiar. That's when you put the entire package together. You have something that's attractive not only for smaller companies as perhaps it always has been, but for larger companies as well.

The third impact I want to talk about is new products and new markets. I don't think I'd be surprising anyone if I described the life insurance environment as one with flat sales during the past few years. In fact, there have been declining sales in some product lines. Profit margins continue to thin because of the competitiveness of pricing as companies fight for market share. When you have a marketplace like this, companies must look around for new profitable markets to enter. Obviously they will be unfamiliar with these markets, and companies may be uncomfortable holding high amounts of risk. Here's another opportunity for reinsurers to step in and provide knowledge, expertise, and resources for direct writers. I've already talked about that in terms of product development. We're talking about underwriting expertise and administrative resources.

Of course, the reinsurers, besides providing knowledge and expertise, can step in and provide capacity if they have more familiarity with the marketplace. I'm not going to spend much time detailing the products and markets where reinsurers are supporting direct writers in this fashion. They include: corporate-owned life insurance (COLI) business, particularly guaranteed issue COLI business, which is variable annuity guaranteed minimum death benefits; EIA and life products, which are perhaps the hottest products out; critical illness insurance, which in its infancy stage in the U.S.; foreign risks as companies look to be global in their scope, and an older age risk, as companies look beyond issue age 80 as a viable marketplace. Reinsurers, in anumber of the significant hot markets and products in life insurance, are playing a key role in supporting direct writers, offering them knowledge, expertise, and capacity.

Finally, let me talk about expenses and efficiency of operation. I'm going to break this topic down into three distinct subtopics. They include distribution costs, risk-based capital (RBC), and administrative costs. Let me start with distribution. The traditional systems for distributing life products—agency systems, general agencies, and broker operations—have become quite costly to maintain. With that in mind, companies are seriously considering and looking for new ways of selling at a lower cost. Bank distribution is a good example of this. Electronic commerce on the Internet electronic commerce is an example of this. Direct writers focusing their attention toward their distribution capabilities. At the same time they're moving away from risk taking. In the extreme, we're seeing some direct companies becoming almost like distribution outlets.

At the same time reinsurers have been very willing to step in and take much of the risk on sales through these new distribution channels, even more so than direct writers themselves. Reinsurers are supporting the direct writers' efforts to lower distribution costs in the form of providing capacity.

RBC is clearly a critical issue throughout the 1990s in achieving and maintaining high ratings through the independent rating agencies. If I can be completely simplistic, one of the ways you achieve and maintain high ratings is by having a strong capital position. With that in mind, RBC and the RBC ratio have become internal yardsticks for all companies. Companies have become somewhat risk adverse.

As I described before, RBC can be reduced by ceding a significant share of the risk to reinsurers. Obviously an efficient way to do this is through a first dollar quota share arrangement. As I referred to earlier, due to the advantages, reinsurers have been very willing to step in and take most of this risk. Direct companies are entering into first dollar quota share arrangements, ceding many of the risks; thus, freeing up capital either for other initiatives that may provide better returns or enhance the RBC ratio.

Finally, administrative costs. I talked about companies getting into new products and new marketplaces. Clearly, they will lack expertise both on the product side and the administrative side. I think a great example of this is variable products variable life and variable annuity. Many companies have attempted to get into that marketplace only to be stymied by the administrative burden. Many companies have current and new products that are still supported by old legacy systems. With this, administration is inefficient because systems constraints and costs are too high.

Some reinsurers are able to provide administrative services through TPAs. The TPAs can provide state-of-the-art systems, and they can secure for the direct writer a fixed known cost to administer the business. In many cases, this can even lead to a reduction in the fixed-cost expense assumption of pricing, and perhaps have a positive impact on prices as well.

The role of the reinsurer is clearly expanding well beyond being providers of capacity over direct writers' retention. We're seeing reinsurers providing a variety of services and partnering with direct writers both large and small in a variety of ways and providing a variety of services. Reinsurers are having a substantial impact today on pricing as it relates to retail price itself, product design and development, entering into new products and new marketplaces, and expense efficiencies. This is clearly an exciting time both for the direct writers and for the reinsurers.

Mr. Reynolds: Our next speaker is Doug Doll from Tillinghast. Doug is a consultant with Tillinghast-Towers Perrin in its Atlanta office. He has a long interest in product development, serving as editor of the product development news, and later on, the product development section council. As a consultant, he's asked to rationalize for clients the seemingly irrational behavior of their competitors, and I'll let him try to do that for us.

Mr. Douglas C. Doll: After I sent that little biography off I looked up what the definition of rationalize is in my dictionary. Definition number one is, to make rational. That sounds good. Definition number two is, "to cause to seem rational." Definition number three is, "to devise a self-satisfying but incorrect explanation for something." I'm afraid that's what we do sometimes in our pricing.

It's already been mentioned that our key challenge for the last few years has been pricing products that are both competitive and profitable. In fact, it's even been said that's an oxymoron. I'm going to cover the results of some surveys that Tillinghast has conducted. The results of the surveys indicate that this oxymoron is going to continue into the foreseeable future.

We've conducted three surveys in the past year and a half. In 1996, we conducted a survey of pricing methodology. That's sort of a euphemism for the profit objectives companies using to price products. Then, more recently in 1997, we conducted a survey of CEOs on various general issues, and a survey of corporate and chief actuaries also on various general issues. The results of the CEO survey were recently put out in a brochure. The results for the chief actuary survey will be released in December 1997.

We had response rates that varied from 30% on the CEO survey, up to about 60% on the pricing methodology survey. One of the things that comes out on these surveys is that both actuaries and CEOs agree that high cost and competition are the main challenges for the near future. Pricing actuaries see new products as one of the key opportunities for the future. I think there's still job security for the pricing actuary. The other thing that comes out in these surveys is that there's a sense that improvement could be made in the measurement of profits and communication of results to management.

In both the CEO survey and the chief actuary survey, we asked respondents to list the top three strategic issues that they expect over the next five years from a list that we gave them. The actuaries were in broad agreement with CEOs on what the top issues were. The top two issues were distribution channel productivity and increasing competition. When you look at the lower ranking items, the actuaries

put a higher rating on sales practices compliance and market conduct. The actuaries also had a higher rating on expense management.

With regard to how prepared the respondents believed their companies were to address these issues, the actuaries were not in alignment with the CEOs. They were much more pessimistic than the CEOs on the top three issues of distribution channel productivity increasing competition, changing market and customer demands. Very interestingly though, on the sales practice compliance market conduct, the actuaries were very optimistic about the preparedness to address that. In a recent session, it was hypothesized that perhaps the actuaries on this particular issue are looking at the sales illustration regulation and they feel like they've gotten that in hand, because we have an illustration actuary signing that. Maybe that's an issue behind them. Maybe that's why they feel like they're prepared for this.

The actuaries also thought sales illustration regulation was a more important issue than the CEOs, so it's interesting to contrast that with the fact that they feel very prepared to handle that. Actuaries are more pessimistic than the CEOs on the issue of expense management.

We didn't ask all the questions quite the same way in the two surveys. For the CEOs, we asked what kinds of actions they plan to take to improve their companies competitive positions. Interestingly, investing in technology was by the far the number one response. In our last survey, taken in 1995, investing in technology ranked sixth. It’s gone from sixth to first in only two years. What was number one in 1995? Improving customer service. In two years that has gone from number one down to number seven. In fact, it looks like nobody ranked it as their most important competitive strategy, so it's quite a change in outlook.

There were some followup interviews with the CEOs on their responses. The role of technology in supporting the customer acquisition, distribution productivity, and overall operation expense improvement was seen as the major thrust that the CEOs plan to take. So again, it's kind of a distribution and expense issue. That's the way they are addressing it. The second, third, and fourth items were: seek alternative distribution channels, lower distribution expenses, and acquisitions. Those are more or less traditional responses. The sixth item was expanding insurance products offerings. Although it's in sixth place, it got a fairly high rating as far as the most important competitive strategy.

For the actuaries, we didn't even include investing in technology on the list of choices, so I'm not sure where they would have placed that. But the top few items on this list fit more or less with the CEOs. The actuaries ranked developing alternative distribution channels first. Developing new products was second,

ranking even higher than distribution as far as the ranking with regards to both significant opportunity or some opportunity. The top three issues were basically entering new markets, developing new products and reducing cost. I thought it was kind of interesting that enhancing asset/liability (A/L) models and investment skills ranked seventh on the list. I thought it was even more interesting that increasing prices both on new business and existing business were the last two choices of 12. Apparently increasing prices is not an option. I'm sorry that reinsurance was not one of the choices. I'm sure it would have ranked very high if we had that on the list. It wasn't included, but there was a write-in option.

We asked companies what their primary yardstick was to measure and manage performance. Surprising, less than 10% of the companies use economic value added as their primary yardstick. I'm not surprised, though, by the high rating on GAAP profit and ROE. In a recent session it was stated that if you're a publicly traded company, that's the way the outside world sees you. Mutual companies, of course, now have a lower rating on GAAP and a higher rating on statutory results. That will probably change as GAAP becomes embedded in mutual company financial statements.

The actuaries were asked if they were satisfied that their pricing targets adequately reflect riskiness and/or cost of capital at the various product lines. Only the minority of respondents were satisfied that their pricing targets were correct. It goes up by size of company. For the large companies, 32% were very satisfied, but for small companies only 15% were very satisfied. For the number of responses that were somewhat dissatisfied, the large to medium companies also had a higher percentage than the small companies. It's a little bit strange that the small companies tend to group themselves more into the moderately satisfied. There does seem to be room for improvement there as far as putting the pricing targets where they ought to be.

The 1996 survey asked about profit objectives in 1995. The survey shows the ROI or ROE targets for universal life (UL) for stock companies, and participating whole life for mutual companies. We also asked about other types of products like single premium deferred annuities (SPDAs) and variable products. I thought that these two products were most comparable between stock and mutual companies. We've done these surveys over a period of years, so we can see how the trend changes over time.

For stock companies, the median objective has stayed within the 14–15% range. It's clear that over the years a number of companies have been reducing their objectives. That makes a lot of sense—as interest rates have fallen, you would expect the pricing objectives to fall as well. For 1995, 40% of companies had an

ROI pricing objective of less than 14%. I would expect that to be well over 50% today.

ROI was the primary objective for most product types, except for term insurance and variable products, where ROI may make less sense because there's a lower investment in the product. One thing that I felt was interesting is that every January *Forbes* magazine has an issue where they do a summary of industry profits. In January 1997, they showed that the 5-year average return on capital for the health companies was 11.3%, which you probably think is kind of low. It's definitely lower than our pricing objectives. For all industries combined, there was a five-year return on capital of only 9.8%. In comparison, 14–15% must be a high return.

We also asked the respondents to indicate whether they really expected to achieve their targets on the 1995 issues. The results gave us a lot of interesting information. We characterize response between low sales companies and high sales companies with somewhat arbitrary lines as to what it took to be a high sales company. The low sales companies have a high percentage of companies that said, they do not expect to meet their target. Another fairly reasonably high percentage doesn't know if they will meet their target.

Among the high sales companies, fewer said they didn't know for term and UL, although it was still a fairly high percentage. I'm not sure what "don't know" means. It might just mean there's some uncertainty about future persistency assumptions. The "no's," I'm going to have to assume, must be in regards to expense overruns.

Back to the CEO survey. We asked the CEOs if they were satisfied with their current margins in their products. Quite a large percentage of them were either moderately satisfied or very satisfied with their profits. For the new business, the percentage was slightly lower. About 70% altogether were either satisfied or moderately satisfied. That's an improvement from the survey of two years ago. Those percentages are up about 5–10% in the last two years. I don't really think margins have improved all that much. I suspect that CEOs are getting more acclimated to the lower interest environment and lower margins.

There was some variation by type of company on this particular question. For stock companies, with regards to new business, the moderately satisfied and very satisfied were about 75% in that category. The mutual companies were only about 50%. Half the mutual companies were either somewhat or very dissatisfied with their margins on new business.

We asked what they expect the margins to do in the future. A large percentage expected them to stay the same on existing business. That makes sense. I guess there's a feeling that those margins are locked in. On new business, we see some schizophrenia. Forty percent expect margins on new business to improve moderately, and nearly 30% expect them to decline moderately. Those also reflect some increasing optimism on the CEOs' part. In the 1995 survey, 41% projected margins on new business would decline moderately. When we asked the CEOs, "Why would you expect the markets to decline?" They talked about greater competition especially from outside the industry. Excess capacity in the industry and increased regulations were the primary reasons given. When you asked the CEOs who thought the margins were going to improve, "What reasons did you give for that?" no single factor was given.

Our stock and trade as pricing actuaries is our assumptions. We asked the companies how important certain kinds of assumptions are, and also, how confident they are in their pricing assumptions. Looking at the confidence scores, persistency and expenses get the lower competency ratings. Mutual companies have very little confidence in expense assumptions, so that theme about expenses, especially for mutual companies, is consistent. There was a fairly low rating for stock companies on mortality importance. I attribute that to the fact that there were some annuity companies in the survey. Of course, the annuity companies probably gave that mortality a fairly low importance score.

We asked the actuaries to identify potential risk that could cause problems for their companies. I wasn't surprised to see increased competition and expense lead the list at number one, but I was surprised to see new regulations rank ahead of persistency. Another surprise was the low ranking of higher interest rates ans lower interest rates. Perhaps that doesn't necessarily mean that the companies aren't subject to those risks, but that the respondents really don't expect a large change in interest rates to occur in the near future.

We asked the chief actuaries whether they were satisfied with their ability to measure the economic contribution of individual lines of business. Here I think there must be room for improvement. We asked the CEOs the same question. The CEO responses were basically in line with the actuary responses. About 25% of the CEOs said that they were either somewhat dissatisfied or very dissatisfied. If you look at these responses by size of company, there's somewhat more satisfaction among the larger companies. I guess they have the resources to measure this more so than some of the smaller companies.

The next question conflicts with the last question. We asked if the companies determined the value of new business written? By that I don't mean when you do

your pricing analysis, such as solving for 14% ROI,but rather than going back at year-end and looking at the profitability of the new business that you sold. Only 35% of stock companies and 17% of the mutual companies determine that value. Granted, maybe from mutual companies the whole concept of the economic value of the business might not make as much sense. Certainly for stock companies you think it would. Only 36% said they did it. A much larger percentage of those respondents said that they were moderately satisfied or very satisfied with their ability to measure the economic contribution of the business. There's some inconsistency here.

Finally, we asked the actuaries to rank their key challenges and relationships with other senior management. Developing profitable products is seen as the number one challenge. Communications fits in with both the second and third rankings, designing and communicating effective management tools and communicating results. If you can glean a central theme from the surveys, it's the need for pricing actuaires and financial reporting actuaries to work together to meet the continuing challenge of developing profitable and competitive products. I think they can do a better job on measuring how profitable their business is and explaining that to senior management.

In a recent session, one thing that came out fairly clear was that the companies are looking more toward measuring profitability, not just on product line, but profitability of customers, different distribution systems, and different agencies. I think there's going to be a lot of work ahead for pricing actuaries or the financial measurement actuaries to project those kinds of results.

From the Floor: Doug, you had written an article in *Product Development Newsletter* about the trend in mortality due to preferred. Will it wear off over time? If I were a new actuary, it sounds as if the only way to survive in the market is to hook my star to a reinsurer who is taking a somewhat optimistic view point of mortality going forward. Your article implies that's still a gamble. I'd like you to expound on that a little bit further based on what's transpired in the recent past. I'd like the panel to respond to what would happen if the reinsurers make a mistake and lose a lot of money. The profits that you had assumed to be coming from the reinsurer are not there.

Mr. Doll: I see two kinds of companies that are concerned about the ultimate level of their preferred risk mortality. One is the company that's just getting into it or hasn't been into it very long. Maybe they're not very large, and they don't have any credible experience of their own. They're concerned about just the absolute level of mortality. Then there are some other companies that do have credible experience, and they do see very good experience in the first few durations.

They're nervous about what it's going to do long term. I don't think we know the answer to what it's going to do long term.

There were some preliminary results given for the most recent SOA preferred risk survey. One of the things that I found most interesting on that survey was that they asked what company assumptions are for preferred risk mortality. They showed the distribution results for policy year one and policy year six. Several years ago when they did that survey, it looked like companies were grading their assumptions up somewhat by duration. The distribution by year six was higher than in policy year one. The results showed a level of distribution. I don't know if that means that companies have two more years worth of experience and they haven't seen any increase, so they don't expect any increase to occur in the future. I'm not quite sure what to make of it.

In that article that I wrote, it was not based on any statistics, just based on judgment. It seemed to me that most of the preferred risk underwriting ought to wear off over time. The part of it that's attributable to genetics, lifestyle, or what have you ought to persist.

From the Floor: You had the assumption that you're dependent on profits that come from the reinsurers report.

Mr. Bakos: Yes, if a company has priced its product and incorporated it into the pricing, it did what I suggested you could do, which would be to replace your mortality assumption with the reinsurance cost, because that was less than what would have been your mortality assumption. Of course, that depends on how the reinsurer has priced its part of the mix. If the reinsurer has a profitable product given that level of mortality, then there probably isn't much of a problem. To the extent that your product pricing is dependent on reinsurers offering you a good reinsurance deal, you ought to pay much more attention to the reinsurer you're doing business with than you did in the past. I think you'd want to make sure that the reinsurer was a financially sound company and could absorb losses you might think it can and will incur.

I think it's indisputable that both the direct writing company and the reinsurance company are reinsuring the same risks. No matter what the mortality experience is going to be, it will be the same for both the direct writing company and the reinsurance company, unless there's some new form of reinsurance out there I haven't heard of yet. It could just be a matter of subjective judgment. The direct writing company could be wrong. The likelihood of them being wrong obviously depends on the level of mortality they've assumed. If they've assumed 200% of the 1975–80 table then they're probably wrong. They're high. If they've assumed 25%

of 1975–80 table and the reinsurer is pricing it at 15%, then they're probably both wrong. You have to look at each individual situation. Clearly in the future if you're depending upon reinsurers to provide you that pricing plus, then you have to start evaluating your reinsurers more carefully than you might have in the past.

Mr. Doll: I think you should evaluate the reinsurer in terms of their stability, but I also think the direct companies need to be very comfortable that they can understand the rates they're getting. It may be different from what they might have gotten in the past. You obviously weren't in a very competitive environment. I don't think it makes a lot of sense from a direct writer’s standpoint to not pay much attention to what your reinsurers are doing, and how they're doing it. You should have developed that rapport so you can understand what they're doing. That will give you the comfort level just as if you were not reinsuring and just developing your own mortality. You have to be comfortable with what you come up with. You need to have a credible experience to start with.

Mr. DiDonna: Your mortality is going to be what it is going to be. If you choose to reinsure a significant portion of your business, in effect you're betting that the reinsurer is wrong. If you believe that the reinsurer was right, you'd probably keep the business.

Mr. Bakos: When you reinsure for mortality reasons, what you're doing is substituting a guarantee for a risk. The reinsurer has agreed to assume the mortality risk and the portion of the product you're reinsuring. As I said before, you have to make sure they're financially stable enough to do that.

Mr. Thomas P. Kalmbach: On the ROI and ROE pricing targets, was there any comparison? Can you comment on the relative measures with regards to capital standards, and how those interact? How will that change based on capital standards?

Mr. Doll: I didn't comment on it, but we had in past surveys asked whether including target surplus or excluding target surplus were included in company objective. By 1995, 100% of the respondents were including target surplus, which was quite a change over the few years prior to that.

We also asked about the level of target surplus that they were assuming in pricing. The answers ranged all over the place—somewhere around 200% of RBC, company action level.

Mr. Kalmbach: What I was looking at is, if companies are pricing 17% or higher than the 15%, are they, in fact, pricing with less capital?

Mr. Doll: I tried to find a relationship like that. Especially for SPDAs, I tried to plot a graph of the level of capital versus profit objective. I could find no relationship.

Mr. DiDonna: For the companies who are not currently measuring the value of their new business, compliance with the illustration regulation, creates a tool for companies to do that going forward. I think that number may go up in the future.

Mr. Reynolds: I don't do much work with mutual companies, but I'm assuming its fairly common for mutual companies to look at the profitability of their products on a retrospective basis, inasmuch as they need to do that for setting dividend scales essentially. How many other companies actually go back and try to gauge their performance by looking at something issued five years ago? In setting their future assumptions or profit standards, how many look at what its actual emerging profit has turned out to be?

Mr. DiDonna: I've also in the past worked for stock companies as well. The environment that I worked in was different from what it is now. Mutual companies obviously continue to look at the business that they have in force, because every time you set a dividend scale, you're in effect repricing the block of business that you sold in the past. You need to keep track of that. When I first entered the business, I worked for CNA in Chicago; we sold stock life insurance policies. Once they're issued there's not much you can do. You can argue that there's no point in looking at it. Every year when you do your financial statement you'll get the results, and they'll be good or bad. There's really not anything you can do with respect to a true stock company product, or a true guaranteed cost product.

Mr. Doll: From the reinsurer perspective, we talked about all the competitive pricing and all the reliance many direct writers are having on the reinsurance cost. I think, as a reinsurer, because we are in such a competitive and volatile environment, perhaps the most critical thing we can do now is to watch our new business unfold over the next few years. We have to make sure we're doing it right. We certainly all think we are for a variety of reasons. But we have to watch that very carefully.

Yes, I think companies do go back and look at their experience. They do manage to pricing spreads. For example, SPDAs, if you had a bigger pricing spread-a spread between earning and crediting interest that was assumed in pricing—that information is retained and looked at for purposes of setting renewal rates and determining what kinds of spreads you're getting. I don't think people generally are going back and saying, "OK, our actual spread is more or less than what we were earning. What does that translate into? We priced at 14% ROI. Does this different

spread mean we're getting 17% or 11%?" I don't see people going back and doing that.

Mr. Bakos: On your portion of your survey where you're talking about risks that companies face, I was surprised that market conduct wasn't included. Was that one you did not ask or it just didn't rate?

Mr. Doll: That was probably just not asked about. I would assume that if it were asked, that it would be pretty high for at least a dozen or so companies.

From the Floor: I've heard some people talking recently that with all the new treatments that are out there for AIDS patients, that AIDS has actually reached the point where its going to affect an insurable risk. Sometimes we're talking about marketing products specifically for AIDS patients. Have you dealt with that as a reinsurer? What are you seeing and learning?

Mr. DiDonna: I've seen products advertised just recently from direct companies. We haven't reviewed it at all. I don't suspect that it will percolate to the top of our priority list of things to look at. AIDS has gone in a variety of directions over the last decade. With all the new markets that everybody is looking at, that could become another product of interest. Of course, the reinsurers undoubtedly will be there.

Mr. Reynolds: To what extent are the reinsurers setting their mortality assumptions based on hard data versus setting them based on what they have to do to compete?

Mr. DiDonna: It's clearly a very competitive marketplace. There's clearly a lot of business to be had and a lot of capacity with the reinsurers. I can only certainly speak for my company, we rely as much as we can on information that is given to us by our clients, or our prospects. There's also a lot of clients and prospects out there without any credible information. You have to utilize what you see in the whole industry, to speculate if want to project mortality you may see from a company. That comes from doing a good job underwriting the company. Where you think the market is, what their distribution force is like, and how you think they'll bring in risks compared to companies you may know better.

Mr. Bakos: The illustration actuary of a direct writing company is prohibited from using projected mortality improvements, at least with respect to products that are being illustrated. There would appear to be no similar constraints with respect to a reinsurance company that is pricing a product. Nor do there appear to be any constraints other then moral with respect to a direct writing company using a reinsurance cost in place of mortality even if that cost were based on projected

mortality. To what extent do reinsurers rely on actual experience? To what extent may you project experience a little bit?

Mr. Reynolds: I can only speak for my company. We rely on information from our clients, as well as we can get it. We deal with a spectrum of companies from the largest to the smallest. There are a variety of things going on in pricing. What I think is important is for direct writers to be very comfortable with us, not only the reinsurers in terms of their financial position that they can maintain what they're setting as rates. But also from an understanding point of view, of how a reinsurer is getting to the rates there. I don't think it makes good sense for a direct writer to just grab a rate, because it's the best deal in town. I think there needs to be a better understanding of how that rate is determined. Whether or not a direct company would then utilize perhaps more aggressive mortality because of it is a direct writers decision to make. I think there needs to be a good understanding of what the reinsurers are doing. If a direct writer can't be comfortable with that I don't think the answer is take the rate and cross your fingers.

Twenty or 25 years ago we started seeing policies segregated into smoker and nonsmoker classes. In the last ten years or so, we started seeing preferred classes. In the last few years we've seen many classes of preferred—three, five, seven preferred classes. Does anyone care to go on record making a prediction of where it stops? Are we permanently now in a market of seeing multiple preferred classes? Does it make sense for very small companies to adopt this multiple preferred class structure? If the mortality rates are significantly one death per thousand and you have only have a thousand or so policies being issued, it's hard to analyze your experience. Zero deaths or one death may be all that you expect. Does it make sense for the small folks?

Mr. Doll: It certainly seems that the trend is toward more underwriting classes, and I think perhaps one reason for that is that there is more material available to an underwriter, to allow him or her to accurately assess mortality classes in a finer spread. The fact that we can do it may be one of the reasons we are doing it. Companies that have maybe eight preferred classes are not doing that necessarily to have a product that they can illustrate better. I think typically those companies are not illustrating the best class. They know that only 1% or 2% of their applicants will qualify for it. They don't want to create that kind of a negative marketing impact. This is probably being done because it can be done. It may be viewed as a fairer way to classify risks and to categorize people with similar risks. It may give the company that's doing it some advantage. You asked whether the number of categories might be reduced in the future. I don't expect that to happen.

Mr. DiDonna: If the small company is going to be in that kind of market, it's going to have to follow suit, or it's going to be selected against.

Mr. Bakos: I guess the exaggeration of your question is the advent of genetic testing. I think an insurance company should have available to it the information that the policyholder has available to him or her. I don't think that an insurance company should institute genetic testing per se, before the issue of policy. However, I think we have to face the facts that most of the underwriting process is exactly that. You're asking questions and getting data that are indirectly aimed at determining the genetic makeup of the individual you're insuring. When you ask the family history, there are a lot of genetics in there. It's just not a direct test. I think that if genetic testing became prevalent, at least for awhile it could destroy the whole insurance industry. If it could predict with a high degree of accuracy the life expectancy of an individual, then one could argue there's no need for life insurance because the whole point of life insurance is to replace a financial uncertainty. The death benefit payoff was a financial uncertainty, which is the time of death, and the financial consequences of an individuals death. If death is no longer uncertain then the need for insurance goes away. There may be that period of time when genetic testing is evolving in which you discover things that you can't do anything about, and people just die. But the next innovation maybe genetic engineering. You discover a fault associated with some genetic defect, but not only can you discover it, you can correct it, modify it, or influence it in some way. Maybe then you have a different impact on the insurance industry and the need for insurance.