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Session 89OF Term Wars

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Moderator: JEFFERY T. DUKES

Panelists: MARY J. BAHNA-NOLAN
DAVID N. WYLDE

Recorder: JEFFERY T. DUKES

Summary: Term wars are escalating, and no relief appears in sight! Direct writing companies, as well as reinsurers, are locked in an ultra-competitive struggle to outmaneuver each other for increased market share. With the pending introduction of Guideline XXX regulations and increasing market presence of nontraditional distribution approaches, term product price and feature changes are likely to continue at a rapid pace.

Mr. Jeffery T. Dukes: This session is going to be sort of interesting for me because I'm on my way to Japan for maybe three years. The term market in Japan is not anywhere near as competitive as it is here. In fact, profit margins are fat and sassy. I think there are one or two companies that have nonsmoker discounts, and they're fairly modest. Every other company is not distinguishing by smoking status, much less multiple versions of smoker and nonsmoker status, but that's likely to change in the future. It'll be sort of interesting to see how that market evolves and whether it gets as competitive as things are in the U.S. right now.

The first person who we're going to have speak is Mary Bahna-Nolan. Mary is assistant vice-president of product development for North American Company for Life and Health in Chicago, which has been a leading player in the term market for at least 10 years. Mary is responsible for all the product development activity in term, universal life, equity-indexed life, and annuity products. She's an FSA, and she's currently a member of the SOA Task Force on Preferred Underwriting and Large Amounts and also a member of Task Force 72, which I hadn't even heard of before, but it's an industry group developing methods to shorten the traditional underwriting process to 72 hours.

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Note: The charts referred to in the text can be found at the end of the manuscript.

David Wylde is also an FSA and a Member of the American Academy of Actuaries. He's a certified life underwriter (CLU) and a chartered financial consultant (ChFC) as well. He has been at American United Life (AUL) Insurance in Indianapolis since 1978, essentially his entire career, where he is assistant vice president and reinsurance pricing actuary. He's also on the SOA Task Force on Preferred Underwriting and Large Amounts. We're going to get perspectives from both a direct writer and a reinsurer active in this market, and we hope we'll get comments that are interesting and useful from members of the audience as well.

Ms. Mary J. Bahna-Nolan: As Jeff said, I'm going to cover pretty much a direct writer's perspective of the term market and the competitiveness that we're facing today in the term market. How do we overcome some of that competitiveness, and how are we able to actually survive in the market today?

Over the past few years the term market has become extremely competitive. We have seen rates decrease approximately 20–30% overall, just in the past two to three years. This decrease has been due partly from the introduction of new preferred classes and superpreferred risk classes. Some of it's due to reinsurance rates and aggressive reinsurance rates. More of it is just due to the competitive nature of the term market. We've seen many new companies enter the competitive term market.

A few years ago there were probably four or five companies that would be considered a top-tier company or a company with extremely low rates and sort of on the leading edge of the term market. There was a whole grouping of companies that had rates anywhere from 5% to 20% above those top-tier companies, and the top-tier companies really did remain the leaders in the term market. Today, however, we've seen a lot of different companies come into the competitive term market. These are companies that weren't traditionally there before. If you take a look at some competitive profiles of the industry, you'll see that there's a whole slew of companies that are within just a couple of dollars of each other at the top or the lowest rate.

Of course, this competitive pressure or the competitive environment has put significant pressure on the profit margins. Two or three years ago, profit margins between 5% and 8% after tax and after surplus with a break-even year occurring at year five or six was certainly reasonable, especially on a 10-year term product in your most aggressive risk class. Today it's much more common to see profit margins down in the 2–3% range, and the break-even year does not occur until year eight or nine.

Another thing to keep in mind is that, a few years ago, I don't think companies really priced term with true, fully allocated expenses. I think the expenses have become more and more marginal as the years have gone on. Not only are we having lower profit margins, but we're also not covering as much of the expense as we used to cover before.

One of the big issues that every company addresses, and I know our company goes through it, is how many risk classes should we have. In particular, how many preferred risk classes do we need? It's common for companies today, especially in the term market, to have at least two preferred nontobacco risk classes—a superpreferred and a regular preferred—as well as their other standard and tobacco or smoker risk classes. These have been added both for competitive reasons as well as to avoid antiselection. Unfortunately, this can complicate the pricing and the management of the portfolio. From a pricing perspective, there is a lack of experience studies at early durations, especially for the superpreferred risk classes. Very few companies have the ability to break out their mortality from the past five years into what would today be a superpreferred and a preferred class.

While we're starting to get some credible mortality studies, it's still not an exact science as far as that goes. It is not only on the front where we do not have the credible mortality experience, but we also do not really know what happens in the long term. At a company such as mine, we price over the level premium period. It is not as big of an issue. However, we really don't know, in 20 or 30 years, or over the life of the policy, how the differences in the mortality or the up-front underwriting are going to impact our mortality in the later years. Does that superpreferred mortality or underwriting actually wear off, and does it merge or converge with the other preferred risk categories? In turn, do those also merge or converge with our standard risk categories? People can argue that in many different ways, and there's no true answer today. Only time will tell.

It also complicates pricing from the fact that we usually weigh together or weigh our overall profits for the portfolio-by-risk class. We really need to be able to understand agent selection in getting a true profit analysis, and we need to manage that agent selection as well. We also need to consider consistency with our other product portfolios. Our company has three preferred nontobacco classes on our term products but only two on our universal life. You need to make sure that your company or underwriters can handle the different types of programs by product lines. While too many underwriting classes can complicate the pricing, too few can lead to deteriorating mortality in relation to the competition. There was a good argument made at another session for how you need to consider the competition—what they're doing in relation to what you're doing—how that will impact your overall mortality.

As we stratify our risk classes, however, we have less margin in our pricing mortality, meaning we've refined that mortality to such a point that there really isn't a lot of room for making exceptions. There's a lot of pressure put on the underwriters to make exceptions from the field force to allow someone with a slightly elevated cholesterol or blood pressure to be put into our best risk class. However, there's also pressure from a financial standpoint that we won't meet our profit objectives if they make too many of those. It's real important that the actuaries and the underwriters have very close communication to understand what type of exceptions, from a financial standpoint, are acceptable and what type they should really try to avoid. Our company is starting to do sort of an analysis to look at the trade-off between the out-of-pocket costs or underwriting dollars that we've spent on underwriting. What would be lost from a cost standpoint versus the additional mortality that we'd be taking on, and where is that breakpoint for the different exceptions? Because we just started that, I can't really report on how effective it has been.

A few years ago we were seeing overall rate reductions of maybe 10% or 15% across all risk classes and issue ages for a company's entire product portfolio. Today we're not seeing such drastic changes. We're seeing changes very specific to particular ages and face amounts, and companies are trying to realign themselves competitively. We're also seeing an increase in new products, especially the longer level premium products. We're seeing a large number of 20- and 30-year term products out on the market just since last year. I know our company was the first, or at least one of the first out there, with a 30-year term. That was introduced last summer, and since then, there are at least 10 or 15 companies out there with competitive 30-year term products. That's quite a few new products out there. We're seeing 25-year term, and we also have seen at least one 40-year term. We're working our way to a term of 100, but we'll see if we get there.

Because of the competitiveness of the market today, the changes must occur much more frequently. No longer can we develop a product or change our rates and let them sit for six months or a year until we're ready to make another move. The products have a very, very short shelf life. I know that we just reduced our rates in April, and, as of May, two or three other companies made a change. If we were always trying to beat our competitors, we would just drive ourselves crazy. We would never actually finish the pricing process.

What has led to the competitive environment? I would argue that there are probably five agents that have led to this competitiveness. One has been the changes in the distribution methods. A second (and some would argue it's probably one of the biggest factors) would be the reinsurance market. The third is the regulatory environment. Overall improving mortality and underwriting is another,

and the improved use of technology is a fifth factor. And I'll go over each one of those now.

Changes in Distribution Methods

We've seen a lot of quoting services introduced to the market. I don't know how many of you have gone on the Internet and taken a look at Quotesmith or SelectQuote. If you have, you know how they work. Actually, anybody can get into these web sites and take a look. You enter your date of birth, if you're male or female, and type in the face amount or amount of insurance you think you'd want and it shows, from the lowest premium to the highest premium rate, all the companies. These are companies that actually subscribe to that quoting service. It doesn't ask you for any underwriting or risk classification criteria. For a company that has a preferred, their best rate might be a preferred class that qualifies maybe 1% of the population. Their rate might show up first, but no one would actually be able to get it. However, a company that could qualify maybe 50% or 60% of the population isn't even going to show up at first. It might take four or five pages before you really get into some of those other more open or liberal risk classifications.

There's a lot of pressure for companies that do this to illustrate their best risk class and to have a risk class that's going to show up within the top ten, so you show up on the radar screen first. But there is a trade-off between qualification percentage. If you have too low a percentage, then the people who don't qualify have a stigma. They don't like not being considered the best from a company's perspective. You need to balance qualification percentage and the premium rate trade-off. One thing we did to try to avoid some of the stigma is, through our software, allow our agents to go ahead and print out all of the premium rates for a different risk class. That seems to help a little bit, but that doesn't address any of the issues on the quoting services on the Internet.

There are also 800 numbers that are advertised on the TV. I'm sure some of you have seen those. There is a lot of pressure to have a very low rate so at least you pop up. These companies that are selling through the quoting services on the Internet have a lower cost to the distribution. Your commissions don't have to be as high. It is a way that a lot of companies are going, especially in the term market. We're also seeing less loyalty in a brokerage and personal-producing general agent (PPGA) markets as well as in the captive agents or field force. I no longer think that agents are truly captive. With the introduction of these quoting services and other software packages, such as Compulife, companies and agents are seeing what else is out there and have a very hard time justifying a premium rate that's \$100, \$200, even \$300 higher than another company's.

We're also seeing competition from the financial institution market, and there are really two angles that the financial institution market is following. Many banks, especially through a platform sales environment or direct mail, are trying to have very quick, simplified issue products. We're also seeing banks send out flyers with advertisements for Quotesmith and the SelectQuote. There is an 800 number that you call, and the best or the lowest rates for the companies that subscribe to those actually show up.

The Reinsurance Market

As I said before, I think many individuals blame the reinsurance market for the competitive spiral. Some believe that the pricing is too aggressive and at a mortality level that just won't be supported. I think Dave might argue the contrary on that point. Only time will tell if these individuals or if the reinsurers are right. Reinsurance management is critical if a company wants to be successful in today's term market. We are seeing extremely aggressive and competitive reinsurance rates. Part of that is due to the nature of the market. The reinsurance market is a volume-driven market.

We're also seeing a lot of consolidations within the reinsurance market, which has enabled companies or reinsurers to become extremely large and have a lot of capital or ways to absorb strain, which did not exist a few years ago. Reinsurers are seeing improving mortality experience overall in the industry. One thing that enables the reinsurers to actually put this into practice sooner than a direct company is that they have the ability to pool the risks from many different companies and gain a comfort level with that mortality much sooner than a company, such as our own, that is only relying on what mortality can do.

But with this improving mortality experience and a comfort level, one thing that reinsurers have been able to do is offer reinsurance rates better than a company's pricing mortality. This has led to a large increase in first-dollar quota share arrangements where companies are ceding off 80–90% of their risks. When you have a mismatch between the pricing mortality and the reinsurance rates for 80–90% of the business, you actually can lock in profits. Many companies have taken advantage of that, and that has helped fuel some of the competitive nature in the market.

Another thing the reinsurers have been able to do is provide underwriting expertise to companies. They also have been able to provide expected mortality levels that they can use in pricing. They've helped companies gain that comfort. These are companies that would not have traditionally been in the term market or in the preferred market or had comfort with the pricing levels. This has led to an increased number of companies as well as an increase in the level of competition in

the marketplace. One thing that many of us ask is, if the reinsurers change their methodology or their level of support, how many would stay in the competitive term market? If so, would they stay at the same competitive level that they are today? For companies such as my own, that have always been very comfortable with the mortality levels that we are using and that have had very excellent underwriting and mortality experience as well as very credible experience, the reinsurance market has minimized our competitive advantages in the market by allowing many other companies to come in and price at levels that they would not otherwise be comfortable with. I don't want to say that we are not also working closely with the reinsurers and taking advantage of some other things, but this is something that some companies, such as my own, face on a daily basis.

Unfortunately for the reinsurers and for the direct companies in the reinsurance market long-term partnerships are always very valuable, but, unfortunately, they're very difficult to maintain in today's environment. Because we are so rate driven, we can't afford to not have the best reinsurance rates out there. A company that you may have traditionally worked with for five or ten years may not be a member of your pool, and you need to get comfortable with that if you want to be in the competitive market.

The Regulatory Environment

This also has fueled a lot of the competitive pressure or competitiveness in the term market. One of the biggest factors or agents that have led to this is the uncertainty of Model Regulation XXX. We've seen a large increase in the number of longer level premium products of 20-year, 30-year, or 40-year term products. Much of this has been due to the fact that, originally, Model Regulation XXX was expected to be in effect January 1, 1997, then January 1, 1998, then January 1, 1999, and, even now, January 1 even looks very unlikely. What we're seeing are companies really taking advantage of that. From an agent's perspective, there are certainly more sales in those longer level products because there's this buy-now philosophy. Lock in the longer guarantees. Those products won't be available within another year or two. Until we have a new valuation regulation out there, there are differences in the way companies are reserving, and the reserve management on a term portfolio is very important. Some companies use very aggressive reserving and some use much more conservative reserving. On a 10-year term product, it's not as significant an issue. However, when you get into the 20-year and 30-year term products, it can make the difference.

There are some proposed changes to XXX, and I'm not sure how many people have been following them. It will change the way that we do valuation and the way we look at our pricing. Products, such as a 30-year term, probably will be obsolete. We'll probably see a lot more 20- and 25-year term products out there with the full

guarantees. The new proposed version does get rid of the five-year safe harbor, which I know was a big issue for some industry people with the previous version or the existing version today. Instead, segments would be calculated based on your current or illustrated schedule of premiums rather than your guarantee. No longer would you be able to have a five-year guarantee and just hold the segmented reserve over the first five years. You'd have to hold it over whatever your intended level premium schedule was going to be. The proposed date is January 1, 2000. There are still some issues that the industry needs to resolve on the new version, and those relate to some tax and nonforfeiture issues.

Improving Mortality and Underwriting

The pricing mortality levels for the best nontobacco risk classes have decreased over 30% in the past few years. It's not fair to say that a superpreferred has decreased 30%, but some of it has been due to the introduction of the new preferred risk classes. We're also seeing much tighter definitions for preferred. A couple years ago it was very likely that the best risk class will qualify 50–60% of the risk. Today we're seeing the best risk class qualifying 25% or 30% of the risk. We also are seeing improved underwriting, especially with respect to the cost and time to issue. We're seeing more use of expert underwriting systems or automation, especially at some of the younger issue ages and lower face amounts. With the competitive market being the way it is, every company is selling a lot of term. It's not that one company is taking term insurance or applications away from another. There seems to be a great need for the term insurance. Applications and the volume of business is up at the majority of companies, at least those that I have talked to. Not being able to hire a lot of underwriters has led to the need to automate, especially at the smaller face amounts, in order to keep up. It's really important to manage this portion or this aspect of the business. Our field force says our new business servicing and underwriting time is the number one issue, and you will probably lose a lot more cases due to the fact that you're not getting a product issued quickly enough than because they may not place into the best risk class.

Improved Use of Technology

We have discussed the use of expert underwriting systems and technology. There are also portfolio management tools. We've used technology to really help monitor our ongoing experience and to do the analysis very quickly. We do mortality studies yearly. We can do that even more often if we need to. We also do lapse studies and track expenses, pay-to-submit ratios, and risk-class distributions. What did we expect and what did we price for, versus what are we actually getting, and why are we getting or seeing those differences? What is more important is tracking our competitors and seeing what they're doing. I don't mean only their rates and product features but also their preferred programs. We track our competitors and what's happening in the industry on a daily basis, and we analyze what type of

changes we're going to make from that. There are also expense efficiencies. Today, especially with the term product, there are only a few ways to really differentiate your pricing. One is through your mortality. One is through expenses. Reinsurance does come into play in your ability to negotiate a good reinsurance package, but mortality and expenses are probably the two biggest items. You need to quickly be able to analyze your expenses, the underwriting costs, and the pricing costs, and so on.

What's a direct writer to do? How's a direct writer going to be competitive in the term market? The market's continuously changing or having competitive pressures drive our profit margins lower, and cause our breakeven year to come later. We have little product differentiation other than rate. Why would a company want to be in this market? Our company is in the market because we get a significant amount of volume. We're able to put the product out there very efficiently and at a low cost, and we are seeing very good persistency on the business that we have.

My response to the question would be focus, focus, focus. You need to focus on portfolio management, expenses, mortality, persistency, and reinsurance, as well as the competitive environment, your preferred programs, and so on. You need to focus on the next phase of modifications. Because the shelf life is so short on these products, you can no longer price them and let them sit on the shelf for six months or a year; you also cannot always be chasing the competition. You need to be thinking about what type of changes we are going to make in the next cycle. Keep in mind that you probably can't do everything that you want to do within two months. Maybe you should do something in two months, and then think about Phase II in another two months. That could range from lowering rates, adding new preferred or other underwriting categories to changing the conversion program or privileges within the products.

There are a lot of different ways to try to differentiate your product and a lot of things that companies are doing in the market today. The other is that you really have to have a strategic focus and stick with it. Like I said, you can't reprice each time the market shifts. You have to know how your products fit in with your distribution, and your underwriters, your product actuaries, and your marketing area must communicate. You must all be on the same page when it comes to what you are trying to do with this term product, and what do we want to accomplish? I think I'll turn the discussion over to Dave for the reinsurer's perspective.

Mr. David N. Wylde: The reinsurance market is mortality dependent. The reinsurance community is becoming the mortality risk-bearing entity for term insurance. What I'm about to share with you is kind of my own personal journey on how I became comfortable with the mortality levels that were required to participate

in this market. I kind of have subtitled this, "How I learned to stop worrying and love preferred risks." Sometimes I feel like the Dr. Strangelove at my company, telling people everything's going to be fine. We can all survive after the doomsday machine of preferred risk has destroyed the term insurance world as we know it.

How did I do it? There are many keys to reinsurance success in this market. The first one is to really understand the effect that preferred risk underwriting, the whole selection process, has on mortality. You must feel comfortable that as you select out the better risks, mortality really does get better on that group. The other thing is to understand some of the forces that affect how those risks are actually placed. You end up getting a very high percentage of preferred business on the reinsurance side.

You also have to take advantage of the reinsurer's ability to pool mortality risks. We see a lot of different criteria from a lot of different companies, and we need to be able to take advantage of that. I also have to be aware of some of the critical issues that can affect profitability of the business. I'll get into these one at a time. Listed below is an overview of the preferred criteria or what is used to define risks:

Primary Factors

- Build and blood pressure
- Cholesterol level and HDL ratio
- Tobacco usage
- Personal history
- Family history

Secondary Factors

- Laboratory results
- Driving record
- Hazardous activities

How can you possibly price a preferred class without having mortality experience? The answer is, we have tons of material. I have a stack, at least two feet high, of medical journals that show the relationship between preferred criteria and mortality. This is just a sampling. You can get the 1979 Build and Blood Pressure Study from the Society of Actuaries. It shows you how, as build gets better, and as blood pressure gets better, mortality does decrease. The National Cholesterol Education Program has a really good series of articles that show how high cholesterol actually increases mortality. The *New England Journal of Medicine* and the *Journal of the American Medical Association* have tons of stuff on cholesterol that show the direct link between lower cholesterol levels and lower mortality.

The American Heart Association has tons of material on coronary risk profiles. It has done a logistics study of four or five major factors that have to do with coronary risk. These data are not as nice and neat and tidy as actuaries would like to see. If you get in with your medical directors and your underwriters, you can decipher the material that's in there and come up with a pretty good guess as to what's going to happen with the mortality as cholesterol and all the different other factors come into play.

You can get driving records that show when you're cutting out the people who have many driving under the influence (DUI)- or driving while intoxicated (DWI)-related accidents. What's that going to do to your mortality? It really does decrease it. There are also reference books out there. There's tons of stuff. There are two that are on my chief underwriter's desk that he uses every day: *Medical Selection of Risk*, Third Edition, 1992 and *Medical Risk: Trends in Mortality by Age and Time and Lapse*, 1990. These books have 400 or 500 pages, and there's just tons of material. Like I said, it's not the basic tables, but it shows population studies that show a direct link between mortality and preferred criteria or types of preferred criteria.

I'll just give you one example. At AUL Reinsurance we've taken all these data and have a huge database of risks and mortality analyses. The data I'm going to show you are from the blood pressure study the Society of Actuaries did in 1979. Those data show that systolic and diastolic blood pressures have separate mortality rates. The study also gives a really good distribution of blood pressure by age and sex. If you combine the mortality and the distribution, you can create a curve that shows mortality as a function of the qualifying percentage. That's a really important concept I'm going to get into later.

Chart 1 is a graph of systolic blood pressure. If you go up to a systolic blood pressure of 133, that shows a mortality of about 115% of standard, or what we consider normal or 100% mortality. You can see the mortality gains that you can get if you create a preferred criteria that has a systolic blood pressure of anything under about 130. You start getting mortality gains and mortality improvements. It really happens.

Chart 2 is the distribution of averages from the Build study. Each bar represents an average of the group. As you can see, it's a fairly normal population distribution of systolic blood pressures. Table 1 shows that you can actually create mortality as a function of the qualifying percentage. As you can see, the fewer people who qualify for your class, the better the mortality is going to be. We are slicing and dicing all of these classes to get mortality improvement. Remember that this is population type stuff. As you can see, when 100% qualify, you get 100%

mortality, but if you can get down to 15% or 20% qualifying, you can get a mortality improvement of 30%. That's pretty dramatic.

TABLE 1
PREFERRED MORTALITY HYPOTHESIS

Qualifying Percentage	Mortality Improvement
<20%	more than 35%
20 - 35	25 - 35
35 - 50	20 - 25
50 - 75	10 - 20
75 - 90	5 - 10
> 90	less than 5

The reinsurance division of AUL has taken all of this material and kind of put it together. We've done meta analysis and logistic analysis and everything, and we've come up with what I call a preferred mortality hypothesis. I wouldn't quite put it into a theory yet because we don't really have enough to do so. We can predict, but until we start getting some mortality experience out there, I wouldn't want to really call it a full-fledged theory yet. The hypothesis is that a company must use good preferred criteria, meaning all of those primary, secondary factors, not something like green eyes versus blue eyes or pets versus no pets. It must set reasonable values for all the factors, meaning don't set your cholesterol at 500 and your HDL ratio at 10. The percentage that qualify for the preferred class represents an unbiased sample of the insurable population. I want to make sure everyone understands what I mean by unbiased sample. That doesn't mean how many applicants apply for your class. That doesn't mean how many are in your market. You must look at the entire insurable population. Whether they buy insurance or not is irrelevant. What you want to do is get the insurable population.

Where do you get these kinds of data? The labs are a good source. Your reinsurers are another good source. What you want to make sure is that you don't have any agent field selection going on or anything that can skew the results. You want to make sure that when you're deciding on what percentage will qualify for your class that you don't look at your company's experience. You want to look at a population type experience. If those two happen, then mortality improvement for your preferred class will be a function of the qualifying percentage (Table 1). Everyone is probably wondering, what exactly is that function? The less you have qualifying, the greater the improvement. You can get up to 35% and actually more. If you were to take a sample of the insurable population, less than 10% would qualify, and you can get a great mortality improvement from that.

Let's discuss the standard class and the standard population. Expected mortality, of 100% is right at the average, but the mortality goes all the way from 30% up to 170%. If we keep slicing and slicing and cutting off more and more of the high side of that curve, we can get dramatic mortality improvement. You'd say, "What's so special about that curve?" What's so special about it is it's not that curve. If the mortality was really like this, then no matter how much you slice it you could get maybe 15% or 20% improvement, but you can't go from 100% down to 30%.

We also want to understand some of the forces that affect placement of preferred risks. These are kind of divided into two major sections that I really want to stress. I've kind of coined a phrase called agent-field selection, which describes a situation where the agent, this is really for brokerage, actively chooses which applications to send to the company for underwriting. He knows your preferred criteria, has a pretty good idea of his applicant, and decides that applicant is not going to qualify for the best preferred class. The agent decides to send him to a different company. He also persuades nonpreferred applicants, as determined by underwriting, to go elsewhere. You fill out the application, and you think you're going to be superpreferred, but it comes back and says you're just plain old preferred. The agent might say, "I know a company, XYZ, down the block, and you can get into their superpreferred class." The assumptions are that you can really place 100% of your absolutely best super, super, super class, but only a portion of the residuals are really placed.

What also happens is, along with this agent-field selection, you do get an antiselection of residual risk that's accounted for by the migration factor. What is that? The migration factor tries to account for this antiselection. What we're saying is that applicants who just miss qualifying for your preferred class migrate to another company, and this is driven by agent forces, market forces, and the kinds of things that you can see that would drive an applicant from one company to the next. The assumptions are they have a very efficient market for insurance. The guy knows that company XYZ has a less strict class that you can go to. The factor may be different for what I call the residual preferred versus your residual standards. The mortality for the migrating and remaining applicants follows that hypothesis model. Those who migrate will never be placed in your residual classes.

What does the reinsurers' ability to pool mortality risk mean? We see many different underwriting shops, a lot of different people out there doing underwriting. We see a lot of different sets of preferred criteria. We see many different sets of pricing assumptions, different classes, different term periods, different premium schedules, and a large volume. The quota share retentions give us huge volumes that we hope will, when we put it all together, create a less volatile total mortality for us.

All of this comes down to how one brush with an iceberg doesn't sink the ship. If one company is deciding they're making more exceptions than what we would like, and we would like none, and if their mortality goes bad, they may represent 5% of all the mortality in reinsurance. That's in contrast to a direct-writing company. If it is messing up, its whole block's gone, but from the reinsurance perspective that may represent just a small portion. We'll have time to correct, meaning we can change our course. We actually do underwriting audits once a year for all of our major clients, and we can see where the companies are making exceptions. Things aren't quite what they told us they would be. They have one set of criteria, but they're using something else. That'll eventually be discovered, and, if that happens, woe to the direct writer because we'll cancel them. We really want you to follow your criteria because we're betting the farm on it.

I also have to be aware of some of the critical issues that can affect profitability of reinsurance, and what might those be? I suppose the preferred mortality hypothesis could be wrong. It could be that the more you slice, the less mortality decreases. I've never seen any medical statistics that show that. The lower the cholesterol, the better the build, the lower the blood pressure, the better the mortality. In 30 years when experience comes out we'll know, but it could be wrong.

Select mortality may not continue beyond early durations. This is probably a pretty controversial statement. Once you've underwritten for a preferred, does the person stay preferred? Does the entire mortality curve drop or is it simply kind of tilted and eventually you work yourself back up to ultimate mortality in three or four years? That's a good debate, and it'll be good to see some of the opinions on that one.

Direct writers may not follow the preferred criteria or may make too many exceptions. That's a real possibility. A reinsurer has to be very diligent and go into the direct writers and do audits to find out. That's one of the main criteria that AUL uses when it decides to do business with a company. How strict are your underwriters? I mean, do you make a lot of business decisions? If you're going to reinsure 80% of that, then it will come to us. We want to make sure that you're not making a lot of exceptions to the ones that are reasonable.

Lapse assumption at the end of the level premium period could be wrong. Everybody knows the designs of these products. They have a high annual renewable term (ART) scale at the end to resolve the deficiency reserve question. Most pricing actuaries I know assume a very high—70% or 80%—lapse at the end of the level premium period. The ARTs were never designed for anybody actually to pay, but the ones that do must have outrageous mortality. The idea is you shouldn't be pricing out there and assuming any profits whatsoever. You should price over the level premium period only and that's it. If you want to see what kind

of mortality the ART rates might support, that's great, but don't take into account any excess profits that you think might be out there because it's just unknown. The ART premiums could be too low. I guess we won't know until we start getting some of these 10-year, 15-year or 20-year products, and experience starts coming in. It's just hard to say.

This concludes the reinsurance journey. We'll start taking some questions and hopefully have some good, controversial opinions.

Mr. Abraham Weishaus: I get the impression that some of the excellent term rates result not only from the ability to break the term business up into classes but also from projecting mortality improvements into the future. I've sometimes wondered whether these projections are reasonable. I've recently been seeing in newspapers and magazines how the health fad is over. A greater percentage of our children are fatter than in the past. I wonder whether the panel has any comments on either statements I've made, namely, that projection is used and that projection is valid or not valid.

Mr. Wylde: I can address that from the reinsurance perspective. I actually don't use any mortality improvements in my pricing. My entire hypothesis is based on a reduction of current mortality levels using the preferred criteria. I'm not putting in 2% a year, 1% a year. I hope that's being a little conservative. I know that I'm probably unique. I don't know how the direct writers are doing it.

Ms. Bahna-Nolan: I can't answer for all the companies out there. I know the pricing mortality that we use does not consider any mortality improvements, but we bring the mortality as up to date as possible. We are starting with mortality based on our preferred guidelines as they currently exist today, assuming that they will be carried into the future. We are not assuming from that base point that we'll see a 0.5%, 1%, or 2% improvements. I would imagine some companies are probably using some mortality improvements, but I couldn't say what the magnitude of those improvements would be.

Mr. Dukes: Of the people in the audience who are reinsurers, how many assume mortality improvement beyond the pricing date? That's a pretty low percentage. The rest of you are presumably direct writers. How many of you would say that you use future mortality improvement when you're pricing these products? There are a few but not very many.

Mr. Wylde: I've got one. How many of the direct writers are getting your mortality assumptions from your reinsurers? Based on the show of hands, there is not as many as I thought.

Mr. Dukes: David, in terms of using current mortality in many of the studies that you've been referring to in your presentation, there is always a certain lag. The data are two years old. Do you make any assumption that maybe there has been some improvement from whatever point in the past the data is, as of to the date that you're pricing, but maybe not beyond that date?

Mr. Wylde: That's a good question. I think that it would make sense if you were looking at mortality experience. I was looking at medical journals relating mortality to a type of criteria and to a type of blood pressure and cholesterol. I think those things are fairly timeless. In other words, if you have a cholesterol of 200 today, and if you had a cholesterol of 200 ten years ago, I think your relative mortality, in other words the improvement over standard, is going to be about the same. I think secular mortality is reducing.

Mr. Dukes: But don't they introduce drugs and so on to deal with blood pressure? There are certain treatments that come on line between when some of those studies are done that could reduce the differential between somebody that would, without medical treatment, have the high blood pressure, or are you looking at it with treatment versus no treatment?

Mr. Wylde: The studies are actually showing the blood pressure or cholesterol without treatment. From the doctors I've talked to, if you can use treatment and get your cholesterol down to 200, you will exhibit mortality very similar to someone who has a cholesterol reading of 200 without treatment.

Ms. Bahna-Nolan: I'd like to address it from our company's perspective. We have mortality experience. We did re-pricings over the beginning of this year, and we had mortality experience through year-end 1996. We have about a one-year lag. We did not anticipate any improvement from that one-year forward. That does add, hopefully, a little bit of conservatism to our pricing but not a significant amount.

From the Floor: This question is for Mary, but it could apply to Dave also. Guideline XXX aside, could you comment on your comfort level with 30-year rate guarantees, given the lack of actual data for the various risk classes and the unknown long-term persistency on these products?

Ms. Bahna-Nolan: I think we have a very big comfort level as long as our reinsurers are still comfortable with that.

From the Floor: How did I know that was going to come back to bite me?

Ms. Bahna-Nolan: I think the longer level term products are certainly an unknown. We really don't have a lot of experience, especially with respect to persistency, and the products and the profitability of the products are extremely sensitive to the lapse rates on the product. If you assume too high a lapse rate, sometimes you're much more profitable than if you assume a much lower one. We try to be somewhat conservative in our lapse assumptions. I can't say that we have a 100% comfort level with the products, but I don't think we're uncomfortable with them either. I know it's a very political answer.

Mr. Wylde: I don't like 30-year rate guarantees. Once you get beyond 15-20 years, maybe you should buy universal life or permanent or something like that. I mean they're out there, and it's going to happen. I have found that most of the reinsurance pricing we do is on a co-insurance basis. We're actually participating in the gross premium that the direct writer has, and we give them back an expense allowance to cover their underwriting and setup costs and things like that. I have found that the reinsurance allowance that I'm coming up with is fairly insensitive to swings in lapse rates. I could probably double or half my lapse assumption and set them up with very close to the same co-insurance allowance. Granted, you'll get a different change in the profitability. The absent dollar is the profit you're going to get. But I get about the same pricing. We really are in partnership with the direct writer following the fortunes.

Mr. Dukes: David, do you think that most of these reinsurers are participating in long-term rate guarantees?

Mr. Wylde: Yes.

Mr. Dukes: In the coinsurance allowances.

Mr. Wylde: Yes, specifically on coinsurance. If it's a 20-year or 30-year guarantee, we're in there.

Ms. Bahna-Nolan: I can say, though, having analyzed a lot of quotes on our longer level term products, the longer the term, the more inconsistent the quotes are from the reinsurers. There are some reinsurers that are extremely aggressive on some of the lower or shorter level premium products, but, as you go up, their rates become much less aggressive and sometimes it is the opposite. Even within the reinsurance arena, there's sort of a mixed message as far as the comfort level of a product.

Mr. Wylde: There are a couple things going on. Different reinsurers have different profit margins, different target surplus, and are using different underlying mortalities.

When you get into the longer term periods, perhaps the reinsurers are using different assumptions at the end of the mortality table.

Mr. Dukes: Do you think it has anything to do with the reserves that they're holding?

Mr. Wylde: No, because all the stuff is unitary. We're holding one-half c_x right now. What if some version of XXX comes through, and we end up having to hold segmented reserves? Forget about deficiency. If we have to hold regular, old-fashioned Commissioners' Reserve Valuation Method (CRVM) reserves, we would have to dramatically rethink our participation in the market.

Mr. Dukes: Is AUL a New York accredited reinsurer?

Mr. Wylde: We are licensed in New York, and we are an accredited reinsurer.

Mr. Wylde: We actually have to recalculate reserves based on Regulation 147 for our entire block, and we are a little less solvent in New York than in the other states. We don't hold up any huge capital as surplus in the New York statement.

Mr. Dukes: Mary, could you comment on what happens to the in-force business when rates are lowered every six to 12 months? Are there special programs put in place by the company or do they just hope that they don't go back and rewrite it? What happens in that case?

Ms. Bahna-Nolan: That really does vary by company. When I was on the reinsurance side, I worked with many companies. Many had programs where they would automatically roll people into the new rate sort of on a point-in-scale basis within a certain time from issue. As long as the underwriting was still good, they'd roll people into the new rates. One thing I've been trying to work on with my company is actually getting them to do so because right now we don't. From a systems standpoint, due to the way our system is set up, it's a little difficult for us to do that right now, but it's something we'll be looking at. I think it's something important to consider because many of the reasons why we're able to lower the rates in the first place are due to the better mortality that we're getting. Much of that is based on those policies that are actually in force, especially those that have recently been underwritten. If you don't allow policy holders to roll into the new rates, you're basically saying thanks for all your help, but you can't get these unless you get a blood test again.

Mr. Wylde: Reinsurers have a little bit of an advantage here. I talked about the pooling of risks. Because the market is so competitive and people are coming up

with new rates every eight months to a year, you do get a lot of movement of policyholders from one company to the next. It may hurt direct writers, but, as a reinsurer, I might have that person at the new company. I might reinsure the new product. If the person moves, and I get him or her back from the new company, I still have that risk.

Ms. Bahna-Nolan: We try to analyze whether we are losing a lot of people every time we do a rate reduction. We haven't really seen a huge change in our lapse rates or persistency on the in-force block. However, maybe it is because our rate reductions haven't been as significant since we've been analyzing that information.

Mr. Wylde: Have people been doing lapse studies on new level premium products? What are people saying? We've been seeing lapses under 10%; therefore, we're not seeing what I would call selected lapsation. The lapses that are occurring are due to more economic forces, just regular societal forces, rather than the better risks moving out. We don't have the old reentry term problems from the 1980s. A person is going to go underwriting and then decide to go ahead and switch companies. The lapses that are occurring are fairly uniform across all mortality levels. It doesn't appear that we're seeing a deteriorating block.

Mr. Dukes: You're saying you're seeing persistency for the smoker classes that's about the same as the superpreferred?

Mr. Wylde: It is slightly higher for the smokers, but there is not much of a difference.

Mr. Dukes: These days, my angle is more on the modeling for mergers and acquisitions. When we look at term blocks that companies have, we see higher lapse rates on the less preferred classes—the smokers as opposed to the nonsmokers. As these term periods get longer, it seems like you're likely to move somewhat towards the Canadian term-to-100-type-lapse experience, which is extremely low, but we'll see.

Ms. Bahna-Nolan: One thing that you really do need to consider on replacement programs is the changes in your preferred. One of the reasons why you're able to lower the rates is because you've tightened your preferred. You really need to consider the trade-offs for the extra mortality that you're going to take on in that new risk class if that, indeed, did happen.

Mr. David E. Scherr: Since you pulled out the preferred classes, I assume the rest of the standard class is somewhat substandard.

Mr. Wylde: Definitely. Mortality is higher, and that would be considered an older standard.

Mr. Scherr: I just wanted to make sure.

Mr. Wylde: It is higher than the old 100%. If you took the aggregate being 100% residual standards, their mortality has got to be, on average, a couple of tables higher.

Mr. Scherr: If you've written a policy in a standard class, and this person feels that they're a little better preferred, do you allow that person to get a lower rate? Let's say you've assigned a person to a standard class.

Mr. Wylde: B standard class or A?

From the Floor: Let's say it's not the preferred class.

Mr. Wylde: It is in the residual standard.

From the Floor: Yes, it's the residual standard. They will exhibit better mortality. Maybe they've entered a program where they control their cholesterol. Do you give them a lower rate?

Ms. Bahna-Nolan: I can't say that underwriters never make an exception to that, but my guess is no. I mean it's not our company practice to give people a one or two-year trial period to get better or improve something in order to get the better rate. If they want the better rate, then they need to reapply for it. We do have internal company procedures, though, to keep policyholders from having to go through the underwriting process every year. We do have a time limit on that.

Ms. Lynn D. Davis: Mary, you mentioned that when you manage your portfolio, you have to manage more than just the rates. I'm wondering what, besides the rates, is changing in the products? What else is part of this term war?

Ms. Bahna-Nolan: There is the preferred classes and the tightness or the liberalization of your preferred class. We're starting to see additional classes as well, like a standard-plus type of risk class.

Ms. Davis: I'm thinking more in terms of other features.

Ms. Bahna-Nolan: There are more bells and whistles. About a year ago, we started to see a real differentiation in the conversion period. Some companies shortened

the conversion and some lengthened the conversion. It used to be conversion was allowed for the level premium period or to a certain age, and we started to see sort of a split in the market. Since then, we've seen a lot of the shorter conversion programs reverting back to a longer timeframe, and we're seeing more and more of the conversions going all the way out to age 69 or 70, and some are even to 75. That is one feature.

With respect to other features, we're seeing some additional riders being added on. I think a child rider is something that wasn't on a few years ago, and now almost everybody has a child rider on term portfolios.

Mr. Wylde: Speaking of riders, many companies are creating not only a basic policy but also a companion policy that has lower commissions and, therefore, a lower premium. These companies are allowing the broker to kind of decide. The broker might say, "My customer can afford \$1,500 a year in premium, so I'll give him 40% of the rider and 60% of the base." The broker kind of gives up a piece of his commission to get a lower rate for the policyholder or for the applicant.

Ms. Bahna-Nolan: Many of the changes that we're seeing are with respect to minimum issue sizes and policy fees, the amount of the policy fee, whether it's commissionable, noncommissionable. Some are playing with the commissions in the overall amount that'll be paid out.

Mr. Wylde: The designs are pretty much the same. You get level premiums, and you get the ART rate. I think I've seen changes occurring in the underwriting area rather than in the actual criteria. They are asking whether they can do oral fluid instead of blood or somehow change some of the limits. I take a big gulp every time I hear that. They want to do oral fluid testing for policies up to \$500,000. You'd lose a lot of blood stuff. Oftentimes, oral fluids don't provide the information you need to put applicants in the preferred class, or at least the superpreferred class. You don't get the information on cholesterol or any of the lipids. There's a lot of protected value in blood testing. I see that as the next wave of agent collection. You just do a swab and send it in. The more the market heads that way, the stronger the chance that I would probably have to revise my mortality hypothesis up.

Mr. Dukes: I'd be interested in comments on the following thought. Some people comment that a lot of the secular trend in mortality rates on a normal, select, and ultimate table is really a result of better risks terminating their insurance coverage. If that theory is correct, there is some underlying industry lapse rate that is effectively creating that movement up from the first-year select rates to the ultimate rates. If you start selling some of these products, and you have really good persistency, it

seems like you could argue that the rate at which the mortality is going to increase towards the ultimate is going to be slower. Does anybody want to react to that? Is anybody considering that or trying to model that? No? It was worth a try.

Mr. Wylde: Maybe one of the critical assumptions is that once preferred, always preferred. How many people out there think that once you've done the underwriting selection on preferred, after two or three years you're back up to standard? Anybody assume that?

From the Floor: I know that our company, Guardian, is very conservative, and we don't sell long level term at all. On our permanent business we don't assume that it goes back to ultimate in two or three years. We do make that assumption after about 10 years or so. In 10 or 15 years the percentage of the 75-80 SOA Tables gradually increases.

Mr. Wylde: Okay. You are assuming that it kind of wears off gradually, and you end up with ultimate. In other words you say you have a preferred class that has a 30% reduction in mortality. Do you assume that 30% mortality goes up until the person dies or until the whole class is gone? Or is it 30%, then 29%, then 28%, and then 27%? That sounds like what you're doing.

From the Floor: Yes.

Mr. Wylde: We will need mortality experience in order to see if that's happening. My guess is that once preferred, it represents an entire lifestyle, and we are doing the segmenting of the risks that I showed in the standard class. That class of people will follow a mortality curve that's 70% of standard. That doesn't say you have to have any deaths. It just says that you're going to get 30% fewer all along.

Mr. Dukes: It seems like you could, in principle, construct some sort of a study to track people who were underwritten as preferred. If you could set that up, you could actually test your hypothesis, or maybe that needs to be an industry study. It seems like it's possible to answer a lot of these questions with a properly designed study. Perhaps you can get people to cooperate, meaning people who may be in lapse or are no longer insured under these policies, their policies are no longer insured with you, but they would still cooperate. I don't know if anybody's thinking about doing that, but we could make a suggestion to the Society.

Ms. Bahna-Nolan: The Society is looking to do a study by risk-factor criteria.

Mr. Dukes: Over time?

Ms. Bahna-Nolan: Over time.

Mr. Dukes: Will they see how many of them stay in the various categories? Yes.

Ms. Bahna-Nolan: You'd be able to do a study based on a specific criterion or grouping of criteria.

Mr. Anthony F. Crocker: I'm just asking whether you would want to use the medical study that you'd mentioned before? You would look at the people who had the cholesterol 10 years ago, and try to determine whether they are still lower than everybody else? If so, by how much? Do those kinds of studies exist?

Mr. Wylde: Yes, the medical journals do show trends by duration, and I think what they're actually showing is that when cholesterol is low, the entire class of people exhibit lower mortality throughout their lifetime. The underwriting is not really setting the cholesterol. We're just extracting those people that happen to have a certain cholesterol level or less and do a mortality study on them.

Ms. Bahna-Nolan: My company believes that lifestyle does play an important role in the longevity of an individual, and we do assume that if you're preferred at issue, you're still preferred much later in life. However, the effects of preferred do start to wear off, and the mortalities do sort of merge or converge together. One of our big concerns that we have not been able to address yet is the cancer risk. We don't have effective tests right now to analyze whether your risk for cancer later in life is higher if you live a very sedentary lifestyle today. That is something that we hopefully can start taking a look at and be able to analyze and reflect in the mortality later.

Mr. Wylde: Obviously mortality rates increase with age. That's why the selection process does wear off. I mean 75-80 SOA tables have a 15-year select piece. You've selected out a set of risks. Over the years, there will be people who do get cancer who were perfectly healthy before. A person who had great cholesterol could just change their diet. You have no control over that. That's why you don't have a level mortality every year.

From the Floor: I'll echo some of your comments or maybe contradict them. There was a study in the *Transactions* about 10 years ago that showed that, at very high ages, smoker/nonsmoker mortalities converged. Using a constant percentage at all durations just doesn't seem that right to me.

Mr. Wylde: I would agree with that. The average issue age for most of the term products that we're looking at today is around 40. If you do your study using a

pricing horizon that is 20-25 years, the convergence is way out there on the pricing scheme. At least it doesn't affect the reinsurance pricing since we're going along with the gross premiums. Most of your business is really concentrated at the early to middle ages. Once you're into your 80s and 90s, everything else overwhelms the whole effect of preferred and everything. If you've lived that long, you're doing good.

Mr. Jacques A. Ross: Being the oldest in the room, I think I can challenge your theory of preferred one day, preferred all your life. Fifteen years ago, I was a preferred risk. Today I'm not. Even though your criteria changed with the age, cholesterol was no problem. Blood pressure was no problem. I'm closer to developing a cancer. I'm closer to developing diabetes mellitus. I'm not a preferred risk anymore. I was 15 years ago. Some illnesses will develop with age. I don't see how you can say that preferred risk one day, preferred all the time.

Mr. Wylde: When we do mortality studies we're not looking at just you. We're looking at a bunch of people who looked just like you 15 years ago or have your health characteristics. Therefore, the mortality, as I said, does increase by age. Things happen. But I would still classify the group that you came from 15 years ago as following preferred mortality. On average, the mortality for that group is lower throughout that cohort's lifetime.

Mr. Ross: You may have a surprise with the likes of me. The other comment I'd like to make is it seems that very few reinsurers like to admit that they put mortality improvement in their quotes. I think we all do, but very few will admit it.

Mr. Wylde: Do you mean explicitly?

Mr. Ross: Explicitly. All the reinsurers in Canada have future mortality improvement on their books, otherwise you'd be sixth out of five reporting systems.

Mr. Wylde: Now you're talking about present value of mortality. If your going-in mortality is of a level suggested by the literature, you can still do good pricing without putting in the improvements.

From the Floor: Not in Canada.

Mr. Kenneth L. Nelson: This might be more of a question for Ms. Bahna-Nolan. The margins you recited on these term products to me seemed to be perilously low, and I wonder if you're comfortable with the fact that continuing to sell new products in this marketplace is an efficient use of capital or is it just an effort to sustain the top line?

Ms. Bahna-Nolan: When you're quoting profit margins, you also have to take into consideration the discount rate that's being used.

Mr. Nelson: Correct.

Ms. Bahna-Nolan: We use a high, discounted hurdle rate. It's our true cost of capital. A profit margin that is over zero is truly adding some value to us. I would certainly like to see profit margins much higher. I like the 8%, personally, but if I price my products, especially my most aggressive or competitive rate classes in that way, we wouldn't be anywhere on the radar screen.

Mr. Wylde: Plus there is an inherent problem when looking at pricing as a return on equity (ROE) or internal rate of return (IRR). If you're talking about level premium with a reserving system of one-half c_x , from the reinsurance side and probably from the direct side, you end up, without present values, with a big loss, little loss, little loss, gain, gain, gain, gain, loss, loss, loss, big loss, big loss, big loss. What does ROE mean in that context? I don't know. I struggle with that one every day. I mean I look at two or three different profit measures and say that if my allowance is at a certain point, I'll get this profit and this profit and this essential premium, and this IRR. That's the art form of actuarial science, I guess.

Ms. Bahna-Nolan: The numbers I was quoting were not a return on investment (ROI) or ROE number. They were true profit margins, present value profits, present value premiums, after tax, after surplus. The reason we price our term products on a profit margin basis is specifically because of what Dave said. You get an irrational distribution of profits in an ROI, especially on your 20- and 30-year term products. Your ROI is just a meaningless number.

Mr. Wylde: If I had my druthers, we'd all be doing CRVM reserving or at least some sort of a GAAP-type reserve so that profits come out semi-flat, so IRR makes sense. I mean that'd be the way to go, but since I'm not doing the reserving . . .

Ms. Bahna-Nolan: We are doing CRVM reserving and we're just doing it over the life of the policy as opposed to over a segment.

Mr. Wylde: If you put in the 70% or 80% lapse at the end of the level period, unitary wouldn't pop out. You'd end up with a good segment. If you could do the standard valuation law with reasonable lapses, that would be a step in the right direction. You really shouldn't use those ART rates. They're there for deficiencies, and I think the regulators have forced the industry to do the reserving that we're doing. It's not correct. I like the GAAP idea of level profits or level percentage of

profits. It makes a lot more sense. That's really the way products ought to be designed.

Ms. Bahna-Nolan: The newer proposed version of XXX does get into that to some extent. You still have to do your calculation for your base reserves based on traditional valuation CRVM methodology, but in order to test to find out if you need to hold deficiency reserves, you do a comparison to a GAAP plus premium reserve, which does take into consideration some lapses and provisions for adverse deviation and things like that. It is trying to address some of that. I don't know if it gets us further.

Mr. Kenneth John Longerman: My question relates to the illustration regulation. I want to assume a little bit that most of these products do fall under the illustration regulation.

Ms. Bahna-Nolan: They all do.

Mr. Longerman: Can you use a reinsurer's mortality experience to get the price? It would seem you can't if it's not your own mortality experience. How do you meet the tests and so on? I wonder what the reactions might be.

Ms. Bahna-Nolan: My company uses its own mortality experience; that is not an issue. I do know that some other companies have relied on reinsurers' mortality experience and have used that in their testing for the illustration with the argument that, based on the criteria that they have today, their mortality experience really isn't credible and won't give them the accurate information. It's not a good predictor of what the true mortality should be.

Mr. Wylde: One of the reasons for quota share is if 80% of your business is going to the reinsurer, you can use, in your illustration, the mortality that reinsurance costs at least 80%; you'd need an 80/20 split.

Ms. Bahna-Nolan: We're also, on an illustration basis, seeing a lot of these products becoming noncertified. I guess it's not called an illustration anymore because if you're not showing current values or nonguaranteed values, then it's not an illustration. They show or depict only guaranteed values in their software, and that does avoid some of these other issues.

Mr. Dukes: Mary, you commented that expense assumptions may be more fully allocated expenses, and there is a move toward more marginal type expense assumptions. Maybe we could have a show of hands. How many of you would say

that your expense assumptions are fully allocated? How many would say they're fully marginal? I presume many people are somewhere in between.

CHART 1
MORTALITY BY SYSTOLIC BP

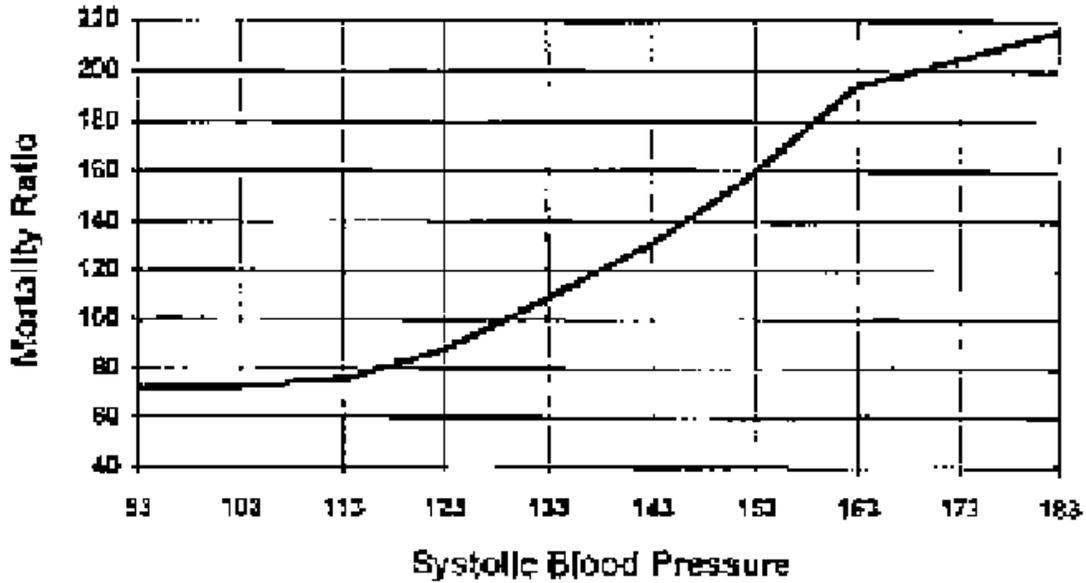


CHART 2
DISTRIBUTION OF SYSTOLIC BP

