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Term Insurance Update

Track: Product Development, Reinsurance

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Panelists: David J. O'Brien†
Duncan Briggs

Summary: The term insurance marketplace is continually changing with new regulation, a multitude of underwriting classes, an evolving reinsurance market and return-of-premium benefits. Companies are currently evaluating their role in the marketplace and how to position themselves for future success.

MR. KEITH A. DALL: We have with us a couple of great speakers. The first one is Duncan Briggs. He is a principal of Towers Perrin. He is originally from the U.K. and holds the FIA designation. During the past two years, much of his consulting work has been in the area of life insurance securitizations. David O'Brien joined Transamerica in 2001. His current role is as the chief pricing actuary for U.S. traditional life product lines. He has managed Munich Re's life and health business and held a variety of actuarial roles in Irish Life in Ireland from 1989 to 1998, where he was focused on the individual life products. I am Keith Dall. I'm from Milliman, out of the Indianapolis office. I've been there for six years. Together, we'll talk about term insurance, and we have three independent roles here. David will first talk about just the general term insurance marketplace. I will follow him with a return of premium term discussion, and then Duncan will discuss securitization and how that has impacted the term marketplace.

MR. DAVID J. O'BRIEN: I'd like to talk to you about the retail market trends and the reinsurance marketplace and about how the two are interacting. I'll try to look

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into the crystal ball a little bit and come up with some predictions for the next 12 months. This is a dynamic time. As the Chinese proverb goes, we live in very interesting times. From the perspective of many of you in the room, I'm sure that's not necessarily a good thing.

In talking to many of our customers, it seems that they—the direct market insurance companies—are really between a rock and a hard place.There's continuing price competition driven by the brokerage market in particular. The hard place, I guess, is the reinsurance marketplace. Progressively increasing reinsurance and use of reinsurance to manage mortality risk and reserve strain has led to ever-increasing reliance on the reinsurance marketplace to continue to provide cheaper coverage. That seems to have stopped, and the marketplace reaction to that is taking us into perhaps uncharted territory, at least for the U.S. marketplace. We'll talk about that and where it's likely to go over the next 12 months.

Please have some sympathy for us poor reinsurers as well. We're continuously squeezed by shareholders and rating agencies to demonstrate the quality and profitability of our business and, of course, we're squeezed by our customers to help them solve their problems. We're particularly conscious of the emerging forms of reserve strain management, the securitization route and other alternatives. We'll talk about how that's affecting both the direct market and the reinsurance marketplace.

This session is split into three main areas. We'll talk about the retail market trends at a pretty high level. We'll talk about the reinsurance market trends in a little bit more detail. It's closer to my home turf, and we'll be looking again into the crystal ball for the term market drivers for the next 12 months.

Turning to the retail market trends, the chart (Page 2, Slide 2) is drawn from Life Insurance Marketing and Research Association (LIMRA) participants. It's a quarterly survey. You'll see the quarter-by-quarter volume sales trends, and I've drawn a trend line through that as well. Conclusions from that are broadly that the marketplace is fairly healthy. We're seeing higher single-digit growth over the last two to three years. I would say the new business revenue associated with this volume trend is perhaps not quite as strong. From our perspective, the mixed risk is getting steadily more preferred, which is leading to a reduced premium rate per thousand, so the underlying new business revenue growth is a bit lower. Nonetheless, the marketplace continues to be relatively healthy in terms of growth. The winners and losers from company to company in terms of sharing in the market growth are exhibiting a much greater variation.

Price trends are a little tougher to exhibit. I've chosen one particular barometer looking at the Compulife database, specifically at companies that are focused on brokerage or nonaffiliated distribution methods. That's really concentrated among just the top 15 or so providers for the purpose of this illustration. Each block on Page 3, Slide 1 represents, quarter by quarter, the number of companies that are

releasing new sets of premium rates. You can see quite a lot of activity at the very beginning period of the operation, toward Quarter 3 '02. It's a cyclical trend. As you can see in subsequent quarters, it's relatively quiet, then it spikes up again, with seven companies choosing to issue new rates in Quarter 2of '03. Then through the tail end of 2003 and early 2004, it was very quiet. Then there's a slight uptick again in Quarter 2 of 2004.

We analyzed in quite a lot of detail the pricing trends implicit to that repricing in Quarter 2 of 2004, and we saw a flat or increasing trend in the majority of those reprices. One or two companies were continuing to choose particular spots selectively to reduce their premiums, but overall the trend was very definitely flat to upward. Quarter 3 has been relatively quiet, and if I continue and maybe reproduce this in a slide in 12 months' time, I think we'll see a considerable uptick in Quarter 1 of 2005. We'll talk a lot more about the reinsurance market trends that are possibly going to drive that.

In summary, prices stopped falling. One of the other barometers that we look to is the age of reinsurance portfolios. We've seen that age has lessened considerably through 2004. In other words, we're not seeing that cyclical repricing that has led to closing of all the insurance pools and opening of new reinsurance pools. Most of the insurance activity has been directed toward filling capacity that's been vacated by exiting reinsurers, rather than closure of old pools and opening of new ones.

Turning to risk selection and how that standard has moved over the last 12 to 24 months, we've seen, again, considerable stabilization. There is convergence, particularly on broker-focused market leaders and term riders on three to four nontobacco classes. That's the emergence of a super-preferred standard that's pretty much identical across the leading players and continuing concentration of sales in those first two nontobacco classes, and generally very little change in the risk factors. That's the age and amount criteria and also then the preferred risk criteria. We're really not seeing fundamental change in how those are operated by the direct insurance marketplace.

What we are seeing is increasing discussion from chief reinsurance underwriter to chief reinsurance underwriter about what the effect of tweaking the standards would be. If I changed the cholesterol high-density lipoprotein (HDL) ratio from 5 down to 4.5, what does that mean in terms of mortality results? What can that do to my price? We're also seeing a significant amount of discussion on exception underwriting. What exactly are the stretch criteria for each of the risk classes? What does that do to the admittance pattern and the number of super-preferred lives that are entering that class that are not meeting the published criteria? How are the exception guidelines managed and practiced? Are there exceptions? We're seeing quite a detailed discussion happening between reinsurers and the direct market on that topic.

Turning to the reinsurance market, I've chosen to talk to capacity on a number of

different dimensions. First of all, there's market share, what that does to both the profit focus and the pricing, and then, to letter of credit and what the emerging trends are there. Unlike the direct markets, there is enormous concentration emerging within the reinsurance business. In 2002, the top eight had 83 percent of new business; in 2003, it was the top five. In fact, there's even more concentration, arguably, within what I'll call the coinsurance marketplace. Unfortunately, we don't have published statistics on that, but I would say the top four are controlling certainly well in excess of 82 percent right there. In general, term coinsurance is purchased from highly rated and very financially strong reinsurers. That marketplace was reduced to arguably four for now. That may change, of course, with the potential for new entrants, given the exit and diminishment of capacity in the overall marketplace and the impact that's had on prices.

Profit focus continues, and reinsurers are under considerable pressure to demonstrate that they're adding value to their shareholders. That's particularly true for the composite reinsurers, for whom the property and casualty (P&C) business lines are at the top of the cycle, earning very strong returns in equity. Perhaps it's been exacerbated even more by the recent hurricane season, because the losses will lead to reductions in surplus levels, yet the prices are continuing to harden. It's a perfect time for the P&C business, and they're demanding the surplus be allocated to make best use of that.

As for reinsurers seeking to enhance value for merger and acquisition purposes, that part's getting a little dated at the time of writing this presentation. The acquisition by Scottish Re of ING Re had not yet been consummated, and I'm not expecting any further acquisitions in the very near term within the top layers of the reinsurance market, but who's to say. All this profit focus is leading to a review of reinsurance pricing and a review of terms and conditions as well. That's been seen over the last 12 months to a limited extent by one or two players in the marketplace. It's unlikely to stop.

Turning to letter of credit capacity concerns, for now that really is not a concern for the top-rated reinsurers. They are able to secure their current letter of credit funding needs from the banks. Banks are also responding and offering multiyear letters of credit at reasonable prices. That's typically five to seven years. Capacity continues to exist, at least for the highly liquid, highly rated reinsurers. That doesn't solve the entire problem. As we know, the reinsurance market needs locked-in prices for 20 to 30 years to manage the funding cycle and the development pattern of XXX reserves. They're having to do their own research, just as the direct market is, into alternatives to letters of credit. The reinsurer that implements those solutions successfully has potential to secure a competitive advantage as well as to deliver a compelling value to direct writers who are also considering these alternatives.

Reinsurance price, again, is not very transparent, so there's no public domain statistics we can use to talk about the market as a whole. So forgive me, but some

of this is anecdotal. With the market exit, capacity reduction and consolidation of the market certainly provide a driving factor for prices to increase. There's also an increased cost of production. Letters of credit haven't necessarily become much more expensive. However, it seems that reinsurers have increased the risk margin for future price deterioration as the concerns about capacity have increased steadily and also as rating agencies have become much more concerned about discussing how reinsurers are managing their letter of credit problem.

An increase in risk-based capital (RBC) insurance factors is a common issue for both the reinsurers and the direct marketplace. There hasn't been an enormous force for an increase in the price of reinsurance, but it has had some effect. As for interest earnings, again it's difficult to work out across the board what's happened with interest rate assumptions. As the yield curve has shifted upward, that has led perhaps to a reduction in the problem of having to increase interest rates. I would say that over the last 12 months, reinsurers have typically responded relatively slowly to changes in the level of interest rates. Therefore, they have been relatively slow in reducing their interest assumptions as the new money rates came on the market over the last 12 to 18 months. I believe there's a time lag effect. Therefore, the new money versus old money concerns in setting interest rates may already have been factored into future pricing. By that I mean any uptick in interest may already have been priced in.

Some of this is offset by 2001 CSO. It has been implemented quite rapidly across 26 states. Most of the reinsurers at this date are likely to be pricing in 2001 CSO. That does lead to a reduced letter of credit need, so there is a positive effect. I guess it is a second order of factor relative to the other cost assumptions that I talked about earlier. While the price for new pools is perhaps increasing, the effect of that in the marketplace is muted by the extent to which old pools continue to exist. In other words, the pace at which pools are closing has slowed. Overall, the price paid by the direct insurance marketplace has not increased as rapidly as a specific repricing exercise would indicate for a new pool.

I was also asked to talk about mortality but again, there's not too much directly relevant public domain information. The 1995 to 2000 individual life experience report has been released in May of this year. That's a starting point for mortality assumption, but as we know, preferred term underwriting has a very significant effect on the mortality, and therefore the expected experience will be a fraction of the table level. From our perspective as a reinsurer, we look to our portfolio experience across the range of companies, again seeking homogeneity where possible and then looking to Framingham and other population studies for our best guide on slope. Really, slope is where it matters right now in terms of reinsurer pricing and direct market pricing. As companies consider securitization, the consultant's view of slope will also come to the fore in validating pricing. In addition, we're looking to individual factor of population based research and looking to our medical directors to help us best understand the potential impact of obesity on future preferred mortality. For now, from our perspective, that may be a

significant population factor, but not necessarily one that will have a big impact on preferred mortality.

We couldn't talk about the reinsurance market and not talk about negotiation trends. From the perspective of reinsurers, there's considerable discussion over the last 12 to 18 months on precisely what the underwriting philosophy and standards are. By that I mean, what are the exception guidelines? How are exceptions managed? What's the experience related to exceptions? What's the control process within the underwriting department of the direct insurance writer? Typically, as reinsurers, we will look to underwriting audits as guidelines for targeted discussion. That's now feeding back into the treaty cycle.

Some of this is also being driven by reinsurers' concerns about building a homogenous portfolio, one about which they can talk clearly to the risk selection standard when they persuade rating agencies and financial guarantors over the quality of their portfolios. Claims handling obligations are in a similar fashion. Reinsurers are more concerned than ever about the quality of the claims handling process. This should not be interpreted to mean that reinsurers want to run direct insurance companies' businesses. But the partnership approach is certainly getting currency, and we're seeing from the feedback we're getting from our customers that more reinsurers are having detailed discussions on these topics. And we have pressure from our retrocession partners who, in turn, are trying to manage accumulation risk and trying to manage the quality of their portfolios. For example, larger risk notification is a current burning topic in retrocession discussions as we face 2005 renewal. This feeds into our contract negotiations.

It's not all one way. Insurers are very concerned about the continuing consolidation and the quality of the reinsurance marketplace. They're seeking to protect themselves from adverse ratings downgrades. Downgrade notification provisions, recapture due to downgrade rights, and potentially payment of the XXX factor reserves are all items that the insurance market would really like to have. Some of you may have seen recent *National Underwriter* articles and reinsurer reactions to articles in which the rating agencies expressed concern about the increasing trends in both the P&C market and the life market for rating triggers to be embedded within contracts. They see that as having a destabilizing effect on the reinsurance industry, potentially a self-fulfilling prophecy, in terms of the impact of rating agency adverse decisions, to further destabilize the marketplace.

From their perspective, they're penalizing reinsurers heavily to the extent that reinsurers freely offer significant recapture rights based on relatively high-quality rating levels. So, in other words, say, recapture of A or BBB+, if significant funds have to be placed back to the insurance company, would be viewed negatively by the rating agency in looking at the quality of the reinsurer. We live in interesting times, as this is debated among rating agencies, reinsurers and insurance companies.

I want to pay a little bit of attention to securitization from the perspective of the reinsurer. We're very aware that our customers are seeking alternatives to what they see as increasing supply costs of the coinsurance solution. On the table (Page 6, Slide 1), you'll see coinsurance, securitization and other debt solutions that are either on or off balance sheet. From our perspective, we as reinsurers can speak relatively confidently about coinsurance and its effect on the balance sheets of our customers. Securitization and other debt solutions are still in relatively early stages. From our perspective, it's a new field, so there isn't a certainty right now. But we certainly acknowledge that many of the market players will need to look at alternatives to coinsurance.

The key dimensions are whether or not these new structures are new business friendly and what the relative cost is. It's certainly clear that securitization and other solutions can have significant tax benefits, and that can, perhaps, offset some or all of the initial costs of raising debt from the capital markets. Minimum efficient financing levels, again, are unclear. As the marketplace evolves and the process of securitization becomes more routine, it might be that the efficient financing frontier reduces as costs fall and as the marketplace gets more comfortable with the inherent risks. And lastly, current rating, of course, matters. It's highly likely that individual companies will make a very detailed assessment of each of these options and perhaps use a smorgasbord approach, taking some of everything to manage their pricing risks in the future.

Turning to the reinsurance marketplace, it's highly likely that we will have new entrants in the reinsurance marketplace. To the extent that a reinsurance business is priced adequately and well, there's certainly significant demand for high-quality reinsurance players. It may be difficult attracting equity into the reinsurance marketplace. Securing the current capacity or operational debt funding from the capital markets may be a further challenge for the new entrants to solve. Those that do will likely do very well.

To leave you with a few thoughts on the reinsurers that are in the coinsurance marketplace, their strategies certainly will be to provide conventional coinsurance solutions, as well as to put together some new solutions that fit well with companies that choose to securitize or implement alternative letter of credit structures. What it may look like, no one knows just yet. We're in the process of working with customers to discover what that might be. But in general, it's likely that there will be some warehousing of new business, perhaps a blend of coinsurance morphing into wire key over time. It's really unclear as to exactly what the new ones are, but reinsurers have a track record of adapting as they need to.

The winners will be those that have strong, stable financial strength ratings, critical mass and the ability to raise funds in the corporate debt markets. Some of those are new entrants in terms of what it takes to be a successful reinsurer. Again, there's a limited number of such reinsurers. The good news for the direct marketplace is that to the extent that the reinsurers begin to unlock some of these

capital solutions, the price impact for coinsurance may well be positive, relative to current levels. The immediate aftermath of the acquisition by Scottish Re of ING Re is for that capacity to be filled elsewhere in the marketplace. I believe there's certainly more than enough capacity in the marketplace right now. The real issue perhaps is price. What will the price for each individual company be relative to the exiting price? The jury, I think, is out on that for now. It will be an interesting quarter or two.

MR. DALL: Who would have ever thought that we would be talking about return of premium term as a hot topic? It's been around for a long time. It started in the mortgage term marketplace. There was some in the disability income, but never in the mainstream term marketplace, and that's where it's entering today. I'll talk a bit about the marketing pitch or the marketing appeal of this particular product and some of the pricing issues. Then we'll touch briefly on the reserves, the standard nonforfeiture law and some other items.

As I said, what's bringing this product back to the marketplace is the great sales pitches that are out there. I'll show you some of those that I found on the Internet. The unfortunate thing is that there are a lot higher premiums out there for the return of premium term, especially in relationship to the base premium plan. That makes it difficult to sell. Fortunately, along with higher premiums, there are higher commissions. Higher commissions for some reason makes it easier to sell. As I said, traditionally this has been in the mortgage term marketplace.

Another marketing appeal is the ability to be able to state the high policyholder internal rate of return on these particular products. Here are some sales pitches that I found on the Internet. "Wouldn't you like to get your money back when you don't die?" You can imagine sitting at a kitchen table hearing some of these comments as the agent is trying to sell you life insurance. "Did you know that less than 5 percent of all term life insurance policies are ever used for their death benefits?" "No-cost (return of premium) term." I should state that Milliman is not endorsing any of these. These are just quotes that I found on the Internet. "Imagine getting a money-back guarantee on your term life insurance." This next one was my favorite. It's sort of catchy. "Coverage when you need it, money back when you don't." The one that most people talk about—not only agents, but also producers and marketing people—is that it's a "win/win/win" situation for the policyholder. That is, you have the death benefit coverage. If you become ill and are uninsurable, you can convert to a permanent plan. If neither of those happen, you get all of your premium back in return. So, it's a win/win/win for the policyholder.

As I stated, the premiums are quite a bit higher than a base policy plan without the rider. A 15-year policy with the rider is 245 percent of a policy without the rider, a 20-year policy has a 67 percent increase and the 30-year carries a 25 percent increase. There are a couple things to point out here. First of all, I don't have a 10-year plan. That's because 10-year plans really don't work in return of premium

rider. There's just not enough time to get your money back. As you can see, the 15-year policies don't work very well. This particular example (Page 12, Slide 1) is for the same company. Some companies try to avoid this, but for this particular company, the 15-year plan with the rider is actually higher than the 20-year plan with the rider. One of the things that will happen when you start to think about pricing these products is that the mix of business will change. A company that we were working with had 50 percent of its business coming in a 20-year term without the rider and about 20 to 25 percent of it on the 30-year. But when you add the rider, the 30-year plan goes all the way up to 75 percent of the business, the 20-year is 20 percent and the 15-year is generally 5 percent or less. It really changes the mix of business, and you have to be aware of that when you're pricing it.

This is an example of a 55-year-old male preferred. You get similar results to the 35. This gives you an indication of where the niche is in the marketplace. It has a base term product that's 96 cents per thousand. With the return of premium, it goes all the way up to $1.75. That's a big increase, but not as much as when you look at a universal life (UL) plan. This particular UL plan was priced such that at the end of 20 years, you have a cash surrender value that's equal to the sum of the premiums, but the UL plan is $4.20 per thousand. There's quite a gap between the term plan without the rider and the UL plan, and that's where the return of premium term fits in.

Here's another sales pitch. Male age 35 equates to 8.59 percent rate of return. That's guaranteed. If you factor in the 20 percent tax bracket, it jumps all the way to 10.74 percent. Again, there's a lot of marketing appeal. There are great sales pitches that can go on at the kitchen table. Another example that I found on the Internet goes all the way up to 14.4 percent internal rate of return. In calculating this, they're just adding on the investment. It's just the cost of the rider. But at the end of the 20 years, they get the entire base premium and rider premium back. So, you can get a feel for what kind of appeal there is for this particular product.

Let's look at the pricing issues. Those don't come as easy on this particular plan because there are a lot of things you need to think about that you didn't when you were just pricing a base term product. First of all, persistency risk goes way up, and no one at this point really knows what that ultimate lapse rate will be on this particular product. While it's been in the mortgage term marketplace, it hasn't really been in the mainstream term products. You have to look at the base profits versus the rider.

Unfortunately, if you're thinking that there will be a lot of profits in the rider and you can offset some of the losses or some of the profits that you're not getting on the base plan, that won't happen. These products are competitively priced, just as the base plans are, and generally companies price them with the same profit margin or the same internal rate of return with the rider as they do without the rider. The impact of net investment earned rate does have an impact when you add the rider. It's a fairly small impact on the base plan, so you have to think about the

net investment earned rate. Then you have additional reserves to worry about and cash values.

Page 14, Slide 2 looks at the persistency risk. I set these up so that the profit margin is 10 percent with and without the rider. If I make the standard change to lapse rates of 120 percent and 80 percent, you can see there's not that much of an impact. But on these particular products, you really need to start looking at the ultimate lapse rate. If you look at the ultimate lapse rate and cut it in half, so you hit it by 50 percent, you can see that the profit margin goes from 10 percent to 6 percent. This particular product that I used is somewhat hypothetical, but I did get some of the information from an insurance company that had priced this early on. It had put the rider out there not anticipating a lot of large sales, so it hadn't really put a lot of thought into it. Initially, on the base plan, the company was using the normal ultimate lapse rate of 6 or 7 percent, so when you cut it in half, you're getting to 3 to 4 percent. This particular graph (Page 15, Slide 1) adds one more bar chart—what happens if you take the ultimate lapse rate down to 1 percent. Your profit margin goes from 10 percent all the way down to less than 4 percent. These are the things that you have to think about when you're pricing this particular rider.

This graph (Page 15, Slide 2) looks at the impact of the net investment earned rate. With the rider, the net investment earned rate has a much bigger impact on your pricing than without the rider. When you look at this, you see that if interest rates go up, you'll start making a lot of money on these plans. The problem is that there will be a lot of new entrants coming into the marketplace, and they'll be pricing at that new interest rate. You'll probably end up having to reprice, so premiums will come down if interest rates go up. Because of that, you need to be aware that if interest rates go down, you need to continue to monitor this particular product. If interest rates go down, you may have to reprice it. You don't want to be the only one out there who hasn't repriced his product and has the best premiums. You can see from the last bar graph that mortality doesn't play as big of an impact when you add the rider.

The reserves are an issue in the sense that they're a lot larger than the base plan, obviously, because you have to consider or add on the endowment. You still have to comply with the XXX Model Regulation. You have to be concerned about an unusual pattern of guaranteed cash surrender value. There is a provision in the XXX Model Regulation that requires you to add on an additional piece of reserves if you have an unusual pattern. And obviously, you must take the present value (PV) of the endowment and add it on to your reserves. You must also comply with the standard nonforfeiture law. The one problem state is Florida, for which you also have to comply with the smoothness test. That's created a lot of headaches for pricing actuaries who have come out with this particular product. It is difficult to try to get that through the state of Florida. It's difficult, but it is possible.

About a year ago, the New York Insurance Department was concerned about these particular products. They started to see more of them being filed and sent out a

letter to the other regulators, just making sure that everybody understood the substantial risk of lapses, the fact that you still need to comply with the nonforfeiture laws and that the reserves should reflect the endowment. With that, then, the NAIC Life and Health Actuarial Task Force put out a survey—again, among the regulators—just to make sure that everybody had a good handle on these particular products. Seven of the eight states that participated in the survey said that they required the standard nonforfeiture law. Although only eight states participated in the survey, I think that almost all states do require it at this point.

In the end, though, generally the regulators were OK with the concept of return of premium term. It caught them early on. There were a few of the products that were out there that went through, that didn't comply with the standard nonforfeiture law. The states didn't catch it. They were out there and didn't have any return of premium until the end of the 20th or 30th year. At this point everybody's filing them, assuming that you do have to comply. Generally you don't have any cash values for your zero through five, and then it grades up rather quickly to the 20th year.

Just to get a feel for what kind of interest there is out there in the market, I talked to different companies. Fifteen companies responded. Three of the companies already have a return of premium rider. Seven of the companies plan to offer a return of premium rider within two years. So of the 15 companies, 10 of them will have the return of premium rider in a couple of years. It's definitely becoming a popular product to have. Unfortunately, as I stated earlier, the problem is that there's not enough experience out there to see what that ultimate lapse rate is. That will be the key to see how much money you can actually make on these return of premium products, if there's any money to be had. You have to be very careful of that when you're pricing in not only the lapse rate, but also the net investment earned rate. With that, I'll hand it over to Duncan.

MR. DUNCAN BRIGGS: I've divided my presentation into a couple of sections. In the first part, I'll provide a general overview or background on life insurance securitization. What exactly do we mean by securitization, and why are companies actually considering doing these types of transactions? In the second part, I'll consider specifically term insurance securitization. At least one company, First Colony, has successfully completed one of these transactions, and there are a number of companies that are actively looking at doing something similar.

Let's start with the fundamentals. When we talk about securitization, what we're talking about is the repackaging of a pool of assets or cash flow rights into tradable securities. The key point is that the repayment on those securities is contingent on the performance of the underlying pool of assets. So, if the underlying pool of assets doesn't generate sufficient cash flow to service the debt, then it's the investors who bear the risk. The investors don't have any recourse to the other assets of the issue, so for that reason securitized debt is referred to as nonrecourse debt.

I think from the perspective of the issuer, securitization can be attractive because it transfers risk and also can release capital that's otherwise tied up in illiquid assets. In the United States, the most significant securitized asset class is mortgages. We've had mortgage-backed securities in the market for 20 years or so now. Other asset classes include auto loans, credit card receivables and even music royalties. Most recently, we've now seen the addition of life insurance to securitized asset classes.

When we talk about life insurance securitization, we're talking about a securitization in which the underlying collateral is the cash flow or distributable earnings from a pool of life insurance policies. It's nonrecourse debt in the sense that the security payments, or the debt, principal and interest, are contingent on sufficient cash flow or sufficient earnings emerging from the securitized business. It's useful to look at some of the reasons why the life securitization market is developing, and a lot of it, I think, is attributable to some of the changes we're seeing in the reinsurance marketplace.

David talked about some of the consolidation that's been going on, and I think that does provide some concern to direct companies about the increasing exposure they have to a smaller number of major reinsurance companies. I think the other major issue is on the LOC side. We have the one-year repricing risk as well as longer-term concerns on just how much capacity there is in the LOC market to meet the increasing demand to cover term and UL-type redundant reserves.For these reasons, securitization is increasingly being considered by companies as an option for financing, capital management and risk transfer.

There are a couple of key impediments to rapid growth in the securitization market.The first one relates to the capital market's learning curve. Life insurance risk really isn't a risk with which the capital markets are familiar, so there's a fairly significant learning curve that they need to go through before they're comfortable taking on this type of risk on an everyday basis. The second impediment is a size issue related to transaction cost. There tends to be a lot of work involved in putting these structures together. A lot of people get involved, and there's a lot of cost involved in doing one of these deals. That places a fairly significant lower limit on the size of transaction that you really need to make this economical.

As I mentioned, there is a lot of work involved in these transactions, and a lot of different parties typically get involved in these transactions. The issuer will put together an internal project team that will include people from various different departments of the company; all those people will commitment a fairly significant amount of time over the duration of the project. The issuer will also engage external advisors. Typically, that will include actuaries to either do the transactions that support the securitization or, at a minimum, provide some sign-off on the projections being done by the company. Investment bankers put the deals together, manage the debt and actually place the debt in the market. There is a lot of

documentation and a lot of legal work involved in getting everything in place for a securitization, so there's typically an external legal advisor as well. The monolines are really in business to take on credit risk, and they've been involved in a number of these transactions and have taken on the direct insurance risk. Typically, they will also engage their own set of advisors to help them do the analysis they need to do.

Most of the securitizations that have been done have been rated, so Moody's and Standard & Poor's (S&P) have to do their own analyses. There's obviously a significant process that needs to be followed to get the rating agencies comfortable with the proposed structure. Typically, at least one, if not more, regulators will need to provide approval on the structure. Finally, the ultimate investors obviously will want to analyze the deal and understand the risk that they're taking on.

The monolines, as I mentioned, are basically in business to take on credit risk. These are specialist insurance companies that have a large amount of capital and AAA ratings. They guarantee principal and interest payments on securities that are issued by various types of companies. Because they provide that guarantee, those securities get a AAA rating.

There's a fairly small number of players in this market. It includes companies like Ambac, Financial Guarantee Insurance Company (FGIC), Financial Security Assurance (FSA) and MBIA. In the life securitization market, they've really helped the market develop more quickly than it would have done otherwise. Most of the life securitizations have had this credit wrap applied to them, and I think that's allowed the securities to be placed more easily. They have the AAA rating, and they have the guarantee there. It allows the investors to focus on the cash flow as opposed to having to understand the underlying insurance risk. A key point is that the monoline insurer charges a fee for providing this guarantee. Obviously, that's an important consideration to the issuer. It would be consistent with the increase in the marketability and liquidity that they'll get.

As I mentioned, the rating agencies have been involved in these transactions. Most of them have been rated by both Moody's and S&P. In the situation in which you have a credit wrap, the rating that's determined by the rating agencies is referred to as a "shadow rating." They look at the deal, ignoring the credit wrap, and then apply a rating on that basis. That rating then feeds into the pricing of the monoline because the monoline holds capital that is, in part, dependent on the rating agency's rating. That helps determine the fee that the monoline will charge in a particular transaction.

The rating agencies will focus on the volatility of the underlying life insurance cash flows. They'll want to see a lot of sensitivity testing. What will it really take to break the deal? How adverse must experience be before there's not enough cash to service the debt? They will look very closely at the sensitivity tests performed by the issuer, and then will also have their own internal models that they use to apply

additional sensitivity tests.

There have been a few different categories of life insurance securitization. Prudential Mutual of New York did the closed block securitizations. These were basically securitizing the embedded value of the regulatory closed blocks that each company had formed when they demutualized. American Skandia did a series of securitizations starting back in '96,financing cash strain on the variable annuity business they were writing. The collateral for those securities was a stream of generated by defined blocks of variable annuity business. Barclay's Life in the U.K. did an embedded value securitization last year.

The one that's of most interest in this session is the transaction completed by First Colony last year. A couple of others that I could add to the list are that Swiss Re did a mortality catastrophe bond last year, plus a life settlement securitization that occurred earlier this year. The current interest is definitely in the area of XXX and AXXX redundant reserve securitization. Those are really the ones that people are looking at most closely at the moment.

I'm sure most people have seen a variation of this chart somewhere before (Page 22, Slide 2). This shows the typical humpback stat reserve pattern that you get under XXX. I've also shown the economic reserve, which is essentially a best estimate gross premium type reserve. The purpose of this chart is to illustrate the redundancy in the statutory reserves. The difference between the two lines is the measure of the redundancy. What companies are looking to do in these securitizations is to go out to the capital markets and raise the money to back the redundant portion of the statutory reserve. You can look at this as a play on cost of capital. You can go out to the capital markets and get the funding for the reserves that are debt cost or, if you have to fund it internally, you'll have to charge yourself a cost of capital that might be 10 or 12 percent. What it boils down to is mostly a play on the cost of capital.

This information is provided by Moody's (Page 23, Slide 1). I think this is fairly basic, but these are some estimates that were done on LOC demand. The central estimate there was by 2007 for something like $45 billion of demand. In another session at this conference, we heard that current projections for both XXX and AXXX may lead to a demand of more than $100 billion in the next five to seven years. If you consider that we're in an industry in which the capital base is around $200 billion, that's clearly a very significant amount.

A securitization solution is one that avoids the need to use letters of credit. As I mentioned, First Colony became the first company to do this back in July 2003. First Colony raised $600 million of debt in total in 2003, and it's basically part of a facility that has a maximum of $1.15 billion. The idea is that as the redundancy of the XXX reserves continues to grow over the next five years or so, the amount of debt will be managed accordingly. There will be additional charges of debt issued. Then, as the redundancy decreases in later years, the debt in issue will be managed down

accordingly. The issuer was a newly formed downstream captive reinsurer called River Lake, a South Carolina-domiciled company. The debt itself is wrapped. MBIA, one of the monoline insurers, provided a credit wrap, so the debt has the benefit of the AAA rating from S&P and Moody's.

One of the important things about these types of structures is that the money raised from the debt proceeds is not used for general purposes. It's used to support the reserve credit for the ceding company. All of the proceeds of the debt are actually held in a trust in the captive reinsured's company and used to provide the reserve credit to the ceding company. The idea is to try to get a close match between those assets and the profile of the debt itself so that you minimize any asset liability-type risk.

One of the key goals is to obtain favorable debt treatment from the rating agencies. The ultimate aim should be to get operating leverage treatment, as opposed to financial leverage treatment. From a cost perspective, there are several components to consider. First, the assets that you invest the proceeds in will be earning some interest, and you'll be paying some interest on the debt. The spread between those two interest rates is one component of the cost to the issuer. Maybe the most significant component of the cost in cases in which you have a wrapped transaction is the fee paid to the credit wrapper. If MBIA or Amvac or one of the others actually provides a credit wrap, then a significant ongoing basis point cost is the fee that will be paid to the insurer. Transaction costs would include both the one-time cost of setting up the structure and the ongoing costs associated with maintaining the structure and managing the debt. All of these costs obviously must be considered when you look at the economics of doing one of these deals.

This is a very simple diagram of the structure (Page 24, Slide 1). It captures the essence of what's going on here, where the operating company is first coinsuring the term business down to a special-purpose reinsurer. Then, it's effectively that special-purpose reinsurer that's issuing the debt to the investors. The debt is invested in a trust, and as the business unwinds and runs down, the money is released from the trust and can be used to service the debt.

There are a couple of advantages to this type of structure versus another fee structure. First, what we're doing here is going to the capital markets as opposed to the reinsurance market. I've heard estimates of a factor of 100 in the capacity difference between the capital markets and the reinsurance markets. For all intents and purposes, there shouldn't be any constraints on companies going out to the capital markets to do this type of transaction. Second, I think we significantly reduce the repricing risk that you have with an LOC-type solution. We don't totally eliminate it; there are some residual risks and some elements of the costs that can vary from year to year. However, the volatility is far lower than what we might get with LOCs, where we have that uncertainty going out 20 years, as far as what it will cost to get a one-year LOC.

However, there are issues to consider.There is minimum size to make this type of deal economical.On one of David's slides, he showed $500 million.When the question was asked in a session on securitization, the answer was somewhere between $100 million and $300 million, slightly lower than David's indications. Nevertheless, obviously a very significant size is required.As the market continues to develop and maybe these types of solutions become more standardized, then potentially the cost involved will come down and the feasibility of doing it for smaller deals will become more apparent. If you look at the day one costs of doing this versus doing a direct LOC solution, it probably will be more expensive, but not necessarily more expensive than the implicit charge that you're getting in a reinsurance deal. Also, you're not subjecting yourself to the significant level of repricing risk.

From a modeling perspective, the key risk to the investors in this type of structure is that the assets that are raised and held in trust are needed to pay benefits on the underlying term policies. The primary risk factor there obviously is mortality.Lapse can also be very significant, but it tends to be secondary to the mortality risk. What we need from a modeling perspective is an accurate model of the securitized term business that's capable of projecting out cash flows over the term of the debt and, most importantly, the ability to do a lot of different stress testing on the mortality and lapse assumptions. This might include varying the mortality slope, building in one-time catastrophic mortality and potentially even doing stochastic modeling as well. The ultimate goal is to be able to demonstrate that the securitization structure can withstand some substantial adverse deviations and experience and still generate enough cash flow to service the debt.

There will be a significant amount of third-party scrutiny on the models and assumptions from rating agencies and monolines, as well as, potentially, from investors in the structure. That means that the models themselves must be very well documented.Most importantly, the key assumptions—the mortality and the lapse assumptions—need to be very well supported. We need to be able to demonstrate to third parties that these are the right assumptions and that they are developed from credible data. Third-party sign-off has become the norm on these types of structures. The rating agencies look heavily to get some sort of independent review of what's being done. Even if the issuer has done its own work, the rating agencies and monolines consider it important that an independent party has come in and provided some sort of sign-off on the models and assumptions.

To wrap up, I think the prospects for more transactions of this type are very high. The LOC concerns will not go away, and that's forcing companies to consider alternative solutions, such as securitization. Some people will talk about the potential for relaxation of reserving requirements. While that may happen over the longer term, it will take several years, minimum, before we get to that that point. I think 2001 CSO does provide some relief, but based on the analysis I've seen, there's still a significant redundancy in reserves, so that certainly doesn't solve the problem by any means.

Many of the large term writers are actively considering securitization solutions. I think it's less feasible for smaller companies to do so at the moment. But reinsurers potentially could do it with their books of business. Also, other forms of venture capitalists or aggregators potentially could come into the market and pull together some of these smaller blocks of business and make them big enough to make a securitization viable.

FROM THE FLOOR: This is for Keith. I wanted to make a few comments about your return of premium. I was a pricing actuary for six years at a company that is one of the market leaders in return of premium and sales. Without going through your whole presentation, I just wanted to say that I felt there was—you may not have intended it—a slightly negative or derisive tone toward the product. You might have emphasized a little more the alignment of interest that the product of the rider makes with the insurance company, the policyholder and the regulators. That is that it encourages persistency, which is, of course, one of the major problems with term products. The direct writers are very concerned with persistency, and encouraging that helps stabilize the block. In addition, the market isn't as price sensitive for return premiums, so there are some margins to be made for companies that have them, at least that was our experience.

MR. DALL: Those are good comments. In fact, I was just talking to a pricing actuary, and he was making a similar statement—that at least from the policyholder's standpoint, it's not as price sensitive. He has a distribution force that's captive agent, so that's a different area than if you're out there in the broker world and actually competing with other companies to get the agent's attention as opposed to the policyholder's attention. So, it definitely depends on your distribution.

Certainly the lapses are a good thing, and I didn't intend to head down that path. One of my graphs that showed the term insurance, the base policy premium, in relationship to the return of premium and then the UL premium was a good graph to demonstrate that there is a niche there. There are plenty of policyholders, plenty of people paying actuaries, in fact, out there that would like this particular product because they're unwilling to pay the higher UL premiums, and they still like the feature that if they keep it around for 20 years, they'll get all their return of premium back. Thanks for your comments.

MR. STUART KWASSMAN: I'm from Phoenix Life. Keith, I know this is not necessarily your opinion; you were taking some marketing material off the Internet. I wonder if you can comment on your opinion of the taxability of the return of premium rider. In particular, is the premium for the return of premium rider, when it's paid back, considered taxable income or not? It's unclear, at least to me, whether that's the basis.

MR. DALL: I believe everyone at this point is treating it as if it is the basis in the

contract. I'm not a tax advisor, but if you think about it in terms of universal life, again going back to that example, in 20 years if the surrender value was equal to the total premium and you paid that to the policyholder, that would be the basis. The contract would be the premium, and you would get that in return. So, it's similar to UL. When you think about it in relationship to universal life, then it seems fairly clear.

MR. KWASSMAN: On whole life, I don't know if that's quite true. I believe a disability income rider premium adds to basis, but I'm not sure how other companies treat that. I'm not certain about that, but I think there's some discussion about that, and that's why I brought it up.

MR. DALL: I agree that, on disability, it's a grayer area. It's not returning the life insurance premium itself.

MR. JOHN N. CLAYTON: I'm with Revios Reinsurance. I've been hearing a question regarding the securitization and the levels of economic reserves. There's some confusion, at least on my part, whether economic reserves really refer to GAAP-style level reserves, which I see are more best estimate reserves or something significantly higher than that. If you could comment on it, I'd appreciate it.

MR. BRIGGS: I think the pure definition of economic reserve will be a best-estimate-type definition. In most of the deals that I've been working on, it's a best estimate calculation done using best estimate assumptions. So, it's just the PV of benefits minus the PV of premiums—that type of calculation. I think maybe where some of your comment was coming from is that if you securitize the full difference between the stat reserve and the best estimate reserve, you're not building in any buffer for adverse deviation. If you set up a special-purpose vehicle, you need some capitalization in that vehicle that provides the buffer to absorb experience worse than what's underlying the economic reserve. That capitalization is not called a reserve per se, but it effectively increases the funding requirements to economic reserve plus some additional capital.

FROM THE FLOOR: I have questions for Keith and Duncan. For Keith, this is in reference to the return of premium product and market conduct issues. I remember the vanishing premium problems we had a few years ago. I wonder if there could be a potential for another resurgence of abuse of the benefits of the product on the part of the marketing people, based on the comments I've seen that you've suggested that you've seen on the Internet about how the product would be marketed.

Also for Duncan, can you touch a little bit on the statutory financial and GAAP treatment on the part of the ceding company for securitizations?

MR. DALL: There are always concerns about market conduct issues out there, and

this particular product is no different than the other products. I feel that it's different, though, than the vanishing premium products that were sold in an environment in which the loads and the CUIs were definitely indeterminate and there was a history on universal life of those values moving up and down, quarter by quarter.There was a lot more risk on the vanishing premium route than the return of premium term type product. The history would tell us at least that the products, the term premiums, have stayed consistent. Having said that, though, as I said in the presentation, I think as pricing actuaries we need to be aware that as the net investment earned rate goes up and down, we will need to go back and reprice these particular products for new issues going forward.

MR. BRIGGS: Regarding the accounting treatment of securitizations, on a statutory basis from the ceding company's perspective, really all you're doing is coinsuring the business down to this captive reinsurer. So, it looks the same as a regular reinsurance transaction would look. But I think you need to look at the statutory balance sheet of the captive reinsurer. What most companies are looking at is actually issuing the debt in the form of surplus notes, so on a statutory basis they count as capital. Your capital goes up by the amount of debt that you're actually issuing. So on a consolidated statutory basis, it's a positive impact to the balance sheet.

On a GAAP basis, I'm less familiar with how all the consolidation works. I think the key question on a GAAP basis is, does the debt show up as a liability? My understanding is that in most cases it would. But the key point is that when the rating agencies look at this, they treat it differently than regular full-recourse debt. Because it's nonrecourse debt, they don't count it toward debt capacity, sothere's a rating agency benefit, maybe not a benefit in the GAAP financial statements themselves. I think there are a number of ways of interpreting how it should work on a GAAP basis.

MR. KWASSMAN: We've talked a lot about the return of premium rider and securitization. With regard to redundant reserves on that type of product, is it fair to say that the amount of redundant reserves decreases significantly under relatively low lapse rates, which is what I would expect with that kind of a product? In other words, because of the fact that you have this pure endowment hanging out there when you set up your reserves, would it be natural that the amount of that redundant reserve would just decrease, and securitization would become less of a solution for that?

MR. DALL: I'll answer first and then pass it on to Duncan. I definitely agree. I don't know of any securitizations right now that are being discussed on the return of premium term-type products. There's much more redundancy in the base term plan than there would be on a return of premium, especially when you consider the low lapse rates that can come up. I feel like there wouldn't be much interest in trying to do any securitizations, and I don't know if you'd ever get the volume at this point either to have that work.

MR. BRIGGS: I've never looked specifically at return of premium term, so I'm not familiar with how the reserve patents look. But what you're saying makes sense. There's less redundancy and presumably, over time, the redundancy decreases substantially as you get near the end of the term. To the extent that there is at least some redundancy—maybe it's fairly significant early on—then there's no reason why you couldn't have a securitization that included both regular term and return of premium term.It's unlikely that anyone soon will have a block of pure return of premium that's big enough to securitize, but there's no reason why it couldn't be combined with other blocks of business to make a securitization viable.

MR. STEVEN I. SCHREIBER: I'm from Milliman. David, you had talked about one of the things that you're trying to get more clarity on in treaties is claims handling obligations of the cedents. Can you talk a little bit about the concerns, the things you've seen that have given rise for the need for more clarity?

MR. O'BRIEN: I take it all the way perhaps to the underwriting standard discussion. They are linked. Both at the company where I work and anecdotally from the market feedback, reinsurers increasingly are concerned that they can clearly link the underwriting philosophy that explains that point of pricing all the way through to observed claims experience. Particularly during the contestable period—that's really when reinsurers have particular interest—there have been some particular cases in which there's been a disconnect between what the reinsurer understood the underwriting philosophy to be, particularly for preferred risk selection, relative to actual observed experience. They're increasingly concerned about making sure that there is a connection between stated underwriting philosophy, stated pricing basis and emergence of experience, particularly as the quality of preferred term blocks is increasingly driven by the assumption for mortality. In other words, the pressure on reinsurers to price as thinly as they possibly can on both the warranty and coinsurance basis leads to significant pressure or an absence of margin to tolerate a deviation from the underwriting standard that was priced. I'd have to struggle to give you more specifics than that, and it probably wouldn't be appropriate for a public domain forum.