

RECORD, Volume 30, No. 3*

Annual Meeting and Exhibit
New York, NY
October 24–27, 2004

Session 54PD

Where Has All the Capital Gone, and Where Will We Find It Next?

Track: Reinsurance, Investment

Moderator: Graham W. G. Mackay

Panelists: David Addison
Alex Cowley
Scott A. Robinson

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Summary: What's causing a scarcity of capital in the life insurance and life reinsurance industries? What are possible responses to it from ceding companies, reinsurers, regulators and rating agencies? Panelists discuss the issues surrounding capital in the life insurance and life reinsurance industries.

MR. GRAHAM W. G. MACKAY: This session is going to focus on emerging sources of capital in the life insurance sector. We're fortunate to have three very knowledgeable presenters giving us views from a rating agency, a reinsurer and an investment banker.

Scott Robinson is vice president and senior analyst in the life insurance group at Moody's Investor Services. His primary responsibilities include coverage on a number of national life insurers. Scott has also worked in quantitative modeling on analyzing structured insurance transactions. Before joining Moody's in 1999, he

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All charts referred to can be accessed through the link on the table of contents.

Where Has All The Capital Gone, And Where Will We Find It Next?

2

worked in the investment policy and strategy group of the Trust Company of the West. Previously, he had been with AXA Financial, and he holds a degree in economics from Duke University and a master's degree in actuarial science from Georgia State. He's a fellow of the Society of Actuaries and a member of the American Academy of Actuaries. He's also a Chartered Financial Actuary (CFA) charter holder.

David Addison is vice president and marketing actuary with the financial markets division of RGA. This group, which started out as ITT Linden Re, has consistently been one of the largest providers of financial reinsurance solutions to the U.S. market. David has been part of the marketing team for five years. In addition to marketing top of the motivated reinsurance programs to his clients, David also plays a key role in securing support from external capital providers for the group's reinsurance solutions. Prior to joining RGA, David worked at Phoenix Home Life in various positions, culminating in a stint with the MNA unit. He's also held positions at companies in Minneapolis and Milwaukee.

Alex Cowley, Fellow of the Institute of Actuaries (FIA), is senior vice president with the Insurance Solutions Group of Lehman Brothers. He's a Director of Lehman Re. Alex is actively engaged in securitization of life products, including transaction origination and structuring. Alex was a member of a team that executed the first capital markets base XXX solution for Genworth Financial, providing up to \$1.15 billion in financing. Alex has been actively involved in various financially motivated reinsurance base solutions and has worked on a number of MNA transactions providing structuring and reinsurance expertise. Most recently noteworthy among them is the activity on the Lehman team involved in the sale of RNG Re. Before joining Lehman Brothers in 2000, Alex worked for 17 years in the insurance and reinsurance industry in the United States, the United Kingdom and Germany. Previously, he held a number of leadership positions at Gen Re Life Health in addition to his experience at Met Life.

My name is Graham Mackay. I'm with Milliman in Chicago. I'm responsible for its life reinsurance practice. Of late, my primary focus has been on these rapidly evolving capital solutions in the insurance industry. Before joining Milliman, I had held numerous positions in the commercial reinsurance market with Mercantile and General Re, Lincoln Re, Duncanson & Holt and RNG Re in Ireland.

Scott will speak first. He will give some background on history and trends and will speak directly to the issues that our industry is facing regarding letters of credit. Probably most importantly, he will talk about the criteria that Moody sees for satisfactory solutions for alternative financing. This is sort of setting the goalposts for us.

David will speak on the reinsurer reaction to these finance needs and on reinsurance solutions to the industry needs. Finally, Alex will speak about the

overview of capital market solutions and provide a review of recent transactions of the next year.

MR. SCOTT A. ROBINSON: First, as Graham mentioned, I'm going to talk about where Moody's sees the industry as far as capital adequacy. I will be showing a number of graphs going into some detail about where we see the trends over the past several years. Next, we'll turn to the question "Is there excess capital adequacy in the industry?" Lastly, I'll talk about our reaction to a number of the solutions that we've seen proposed, focusing mostly on XXX and AXXX type solutions.

Moody's changed the outlook of the industry to negative in September of 2002. Since then, I would point out, we have changed the outlook to stable. When we changed the outlook to negative, that represented our views on the industry as well as the fact that a number of companies on themselves ran negative outlook. I don't have to remind you that there were significantly declining equity markets and, with Guideline 34 and so forth, that took a pretty heavy hit on the industry's capital. There were low interest rates, which we still have now, and there was spread compression as companies ran up against minimum guarantees as well. Significant investment losses occurred, especially during 2002.

There was about \$10 billion in other realized adjustments in Moody's universe on a capital base of about a \$170 billion in the particular universe of companies we looked at. Later on, there was a capital base over \$200 billion. During this period of time, there was significant adverse impact on earnings and capital. The average insurance financial strength rating of the companies declined to A1 from AA3.

Robinson slide #7 shows the distribution of ratings for 78 groups that Moody's has a rating on. Overall, the industry remains highly rated. The A1 insurance financial strength is fairly highly rated compared to the other industries in the U.S.

As I mentioned, we currently have a stable outlook on the industry. The graph in Robinson slide #8 shows the rebound. Everyone knows 2003 was a pretty good year and 2004 has been somewhat flat. There has been a favorable trend in defaults since 2002, as shown in Robinson slide #9. On the left, you see issuer counts and you see dollar volume on the right-hand side. And you can see there has been a significant improvement in the credit environment, which has definitely shown up in companies' bottom lines.

Robinson slide#10 shows what Moody's is predicting for the credit cycle going forward, which is always a dangerous thing to predict. We're projecting about 2 percent or so for 2005, which historically is fairly low. Hopefully, your investment departments are not passing these on to you and you're not using them in pricing. You should be using long-term averages, but overall, it's favorable for companies.

Where Has All The Capital Gone, And Where Will We Find It Next?

4

Robinson slide #11 shows that 2003, on a statutory basis, was historically very favorable for the industry at a 12.4 percent return. It was very high compared to the past 10 years or so, and was a significant improvement from 2001 and 2002.

We can see this as well looking at Robinson slide #12, which shows risk-based capital (RBC), which as we know is not the perfect measure to look at capital. But you can still see that capital improved in 2002 to 2003. The big jump in 2001 is somewhat of an accounting anomaly that's due to codification and the impact of bringing deferred taxes back on the balance sheet. If you strip all that out, you're going to see the trend would be flat to declining for that year. But since then, we've seen some favorable movements on the capital side for the industry.

The main drivers of the changes in statutory capital are going to be increases in operating earnings and unrealized gains. As I mentioned before, 2001 and 2002 had the benefit of codification. We also look on a GAAP basis as well, and if you look at the ratio of GAAP/stat earnings you saw that increase in 2002. That was mainly because companies were taking interest rate related gains to offset credit losses. That's not going to give the company as much benefit on the statutory side as on the GAAP side. GAAP value and statutory capital grew a bit. It's in the range of 1.6 to 1.7.

Robinson slide#14, again, is the Moody's universe of companies on an aggregate basis. At the top, it shows the actual change in capital for the year. You can see in the first six months of 2004, that rose 4.2 percent, which is positive. It's not quite as large as in 2003, but the positive trend is there.

Robinson slide #15 looks at publicly traded companies, which is probably around \$60 to \$70 billion out of the other universe, which had around \$200 billion.

You can see that, in 2004, statutory capital did not rise quite as much. I would like to point out that the public companies are really dominated by several large companies. We could look at this on an average as opposed to just the absolute dollars in capital, which the slide shows.

In Robinson slide#16, we looked at the change in adjusted GAAP equity. When I say adjusted, that means we are adjusting for a number of items, including high grade. So if a company is a high grade, we would give them partial equity credit and consider part of it debt as well. You can see the major drivers under GAAP, of course, are going to be dividends declared on common stock, as well as share repurchase offset by net income on the positive side. In 2004, you can see for the first six months there was an increase of about 3 percent.

You're probably wondering what we are talking about and where the capital is coming from if capital has increased over the past year. So let's just go through that. The industry is strongly capitalized today, but on the horizon there are a number of issues. The main ones we're going to be talking about are statutory, XXX

and AXXX, for which there is a potential need of \$100 billion or so to satisfy what could be called redundant reserves. The other speakers will present some of the solutions to this issue, which is very significant for the industry. I'd point out that C3 Phase 2 is another issue as far as capital needs for the industry is concerned, though we're not going to tackle it in this session.

I'm sure everyone is very familiar with Regulation XXX. It requires companies to hold higher reserves for level premium term insurance policies. We are measuring redundant reserves as the excess of the required reserve over more realistic reserves such as the GAAP reserve. We define it in a number of different ways. We will call it the GAAP reserve. That is the difference that a company is going to have to fund from surplus unless they use some other solution. The 2001 CSO Table reduces, but does not necessarily eliminate the reserve redundancy. This is a very significant issue. That's really what drives the need for capital, and companies need to plan ahead for that.

One thing a number of companies have been using to fund these excess reserves is the letters of credit (LOC), as well as other methods. If you look at the statutory statements, a large portion of LOCs have been used to get credit for affiliated reinsurance. Some of the problems with using LOCs for long-term capital needs are that you're essentially funding long-term capital needs with rolling one-year debt. LOCs are renewable, typically, for 364 days. You also have pricing lists there from year to year. The prices on LOCs could increase. Essentially, if you step back and think about it, it's really a supply and demand issue. Demand is going to be great, and there is a somewhat limited supply. You have a capital base of \$200 billion or so for the industry.

We have seen the supply increase somewhat as far as multiyear LOCs for companies are concerned. The pricing has improved dramatically. A few years ago, you might not have been able to get a multiyear LOC, but we have seen the pricing improve fairly dramatically there.

I'm going to turn to how companies are addressing the XXX issue. Some companies are ignoring the problem. If you're a company that is significantly capitalized, you don't have a great deal of this business. If you're a mutual company, and you're a sub of a very large property and casualty (P&C) company, you're not that worried about the issue. It may not be an issue for you. But for a lot of companies it is an issue. I'd say it's an issue for the majority of companies we talk to. Reinsurance through an external party is a viable solution. Reinsurance, which the other speakers will get into, is a very sophisticated market. You have access to external expertise there. You can close transactions fairly rapidly there. We have seen some hardening in the market there on the traditional mortality side, so a number of companies are retaining more of the mortality risk, turning more toward access of loss. Reinsurance is definitely going to be part of the new solution going forward.

With reinsurance to offshore captive, as I mentioned before, we've seen more multiyear LOCs. I would point out that they help, but they do not necessarily solve the problem.

I'm going to turn to some of the capital market solutions that we have seen. I've been talking to more companies about using the proceeds from a debt issuance at the holding company to fund these redundant reserves. The question is how we will look at that analytically.

One solution is reinsurance with non-recourse securitization, which Alex will get into with more in-depth examples. We've seen one transaction closed. I want to point out that there are a number of solutions out there. I'm just mentioning a couple we've seen. There are a lot of creative people coming up with solutions. The solution that is right for your company is going to depend on your access to the capital markets, the size of the company, the leverage limitations and the characteristics of the business that you're looking to potentially securitize.

The biggest question that we get asked as rating agency analysts is, is this financial leverage? That's what everyone wants to know. A lot of companies don't want to proceed if it's going to be considered financial leverage. So let's look at the solution I brought up before with a holding company: issuance that you use to fund redundant reserves.

There are several questions that we would ask: Are these reserves truly redundant? How are the assets backing the redundant reserves invested? And lastly, what is the maturity of the debt versus the reserve development that we see on the business? You want to make sure there's a match in there. You don't want to have the debt maturing right as you get to that hump in the XXX set buildup.

The other thing I want to point out here is that we have to be very careful. Put yourself in the shoes of a rating agency analyst when a company comes to you and says, "All that debt I issued before is just backing the redundant XXX reserves, so it's not really the financial leverage." Theoretically, we've heard that argument before, but we have to be careful how we look at that. That's why we clearly identify the economic reserves and capital. We want to be able to quantify them. We like to see that in a separate reinsurance entity so the business is reinsured into a separate entity and we're able to track the ongoing profitability of that business. We want to be able to see capital, the actual reserves and the actual assets there.

We also like to have a third party look at the actuarial analysis. We won't take the company's own actuarial analysis. A lot of times, working in conjunction with a bank, the company will give us information. We'll overlay it with our own analytical framework. We look at economic reserves and make sure it's adequate to a certain probability level.

As far as investment of redundant reserves is concerned, we would expect the redundant portion of the economic reserves could be invested more into what you would see in a normal general account investment policy. But we expect the actual redundant reserves to be very high credit quality and well matched with a debt so it shouldn't be an issue. It should have very little liquidity market risk and very little interest rate risk. This is similar to institutional investment product business. We would look at that and bring that into our analysis when we look at institutional type investment products. However, I won't go into how we look at institutional products.

I'll leave you with some questions to ask when you're looking at a proposed solution. First, does the solution actually mitigate the annual repricing risk or a one-year roll risk? If it does, how much risk actually remains as far as repricing liquidity and roll risk? Are you all aware of what the cost of the solution is? Is the capital market going to be right? Is it too costly for some of the companies out there? Is there another solution for your company that meets your needs better? Where does the risk remain with the company and what is the adequacy of the economic reserves and capital? Has that been quantified by the company? Have they done the analysis or have they stopped and said this is just GAAP reserves? You would expect the company to do stochastic type analysis.

Lastly, you want to be sure that you have the time to do the analysis. From a rating agency perspective, it takes us about eight weeks to go through the analysis. A lot of companies will come to us and say they want to close in two weeks. But realistically, you have to allow some time there.

MR. DAVID ADDISON: I'm going to talk about capital issues as I see them and the reinsurer's role in addressing them. My presentation is intended to be a somewhat more of an overview. I'm going to talk a little bit about macro level industry drivers as I see them and the changes in reserving and in products that are driving a lot of this need for redundant statutory reserves. I'm going to talk about the reinsurance and the role that we play in funding those redundant reserves, as well as what we as reinsurers think that we can and we can't do. I'll also give you a little flavor of how we see some of the capital markets solutions coming out.

From a macro level, as has been alluded, there may be more capital in the industry. At the same time, there's definitely a scarcity of statutory capital, just as demands are increasing. That's driven, in part, by the change in product mix and industry levels, the industry composition changing, consolidation, demutualization and globalizations. In my view, these are driving capital issues to the extent that the shareholders are becoming a more important focus within the insurance industry. They have other sources for their capital, and that is driving the requirement for returns. I think we delude ourselves if we don't recognize that regulatory changes both within the United States and on a global level are influencing demands for capital as well.

Addison slide #2, page 2 shows what's going on the product mix. There's nothing here that's totally earth shattering for anyone, but it's important to remember the way the business in the life industry we're writing has changed over time. And it's important to recognize within this graph that, with statutory capital, the two products that we're focusing on—universal life, or the AXXX, and term, or XXX—as a shell of the whole insurance premium, they have increased over time.

At least for the focus of this presentation, term (XXX), annuities (cash strain, C3 Phase 2), U.S. life secondary guarantees (AXXX) and other capital-intensive products are driving a lot of the demand within the life industry for sources of statutory capital. In the life insurance industry, these are the cause of the redundant reserves that you're going to hear all three of us talking about and offering solutions to take care of.

Thus, no more capital is created equal. As a reinsurer, we would view that as being a core level of reserves that is definitely appropriate for every pullout, such as the deferred acquisition cost (DAC) or the economic capital. But then we would see many cases in which there are redundant reserves where the statutory is in excess of the underlying GAAP reserves. It's worth pointing out, at least with regard to AXXX, that there is a very real disagreement in the industry as to whether the AXXX reserves are redundant.

If one thinks that the capital markets and reinsurers have provided solutions to XXX at a low cost-fee basis, to my mind that would be some evidence that there are levels of redundant reserves there. We and the investment banking community should be less successful with regard to AXXX. I believe that provides ammunition for people who say that the AXXX reserves aren't as redundant as some of the most aggressive practitioners might suggest.

I'm very familiar with the basic sources of capital. Reinsurance, in our view, is one piece of the capital puzzle. It's certainly not the only piece of the capital puzzle. But reinsurance has long been a cornerstone that we, as reinsurers, understand. I would suggest probably anybody in the capital markets understands the way that the underlying ceding companies' risks work. We believe we do, in terms of the pricing.

Our role is to demonstrate to capital providers that we do know what we're doing. I would suggest that it is a more efficient paradigm that the reinsurers consolidate the risk and then take that out to the markets, rather than the individual companies taking that out.

As we're talking about reinsurers and reinsurers providing the solution, it's fair to point out that the reinsurance landscape has changed dramatically. There has been significant consolidation. Comparing the breakdown of the top 10 reinsurers for

2001 on Addison slide #1, page 5 and the breakdown for 2003 on Addison slide #2, page 5, the consolidation is quite apparent. If I redid this graph today, we'd find that the top five would be even more consolidated than they are here. As reinsurers, we look at risk as appearing on a continuum. Based on where we see the risk lying on that continuum, we're going to price accordingly and presume that we're going to have to deploy our own economic capital accordingly as well.

Let's think for just a second in more specific terms with regard to a continuum. I'm going to offer a few examples of some business needs and the way that a reinsurer might seek to approach them, to the extent that you as a company are comfortable with their product that you're writing. Surplus relief is probably a good solution to that, to the extent that you're most comfortable with the risk. If you think that there are exposures that you'd like to mitigate, you're probably going to use a combination of coinsurance or royalty, possibly with risk-based capital and relief strategies as well. If you've found a line that isn't attractive, and you have capital tied up where you want to move it on, 100 percent coinsurance is probably going to be a good solution. The reinsurers will, hopefully, provide access to some group portion of the capital tied up in that line.

Obviously, as a reinsurer, I believe that reinsurance is a key element in terms of your capital strategy and taking care of issues associated with redundant capital issues. As you look at using the reinsurer's program to provide you with capital to overcome those issues, the key benefits as we see them would be no initial cost, rapid implementation, competitive pricing, scalability, flexibility, access to expertise and service. Certainly cost is going to be a big driver.

If you put a reinsurance solution in place to cover your capital needs, it's going to have something that will get you reserve credit. It's worth pointing out briefly the differences between the U.S. and other markets. In the U.S., you're going to need to either reinsure with an approved reinsurer or you're going to have to get assets and trust or a letter of credit. In other markets, as long as your reinsurer is rated, you should be able to take reserve credit. The quality of the underwriting reinsurer is really going to drive what capital you have to provide.

Of course, the reality is that if you reinsure with an approved reinsurer for a redundant capital issue, we're simply going to take it offshore as well. It is probably often a more efficient mechanism for the ceding company to deal with this. They have the well-rated U.S.-based reinsurer on their books. Reinsurers are much more used to dealing with this. We will utilize our offshore facilities to cover the capital.

If you are reinsuring with somebody who's not approved, they're going to have to provide something to give you a reserve credit. Traditionally, that's been a letter of credit. Obviously, we talked a little bit about what is a credit. The capacity is shrinking, and so companies are starting to utilize our resources. Because there are shortages in letters of credit, the prices are increasing. This has been driving the

growth in use of assets and trusts. This, obviously, has not gone unnoticed by our friends in the capital markets, and they've certainly seen opportunities and have stepped in with various solutions.

I've talked about financial reinsurance in terms of managing excess statutory capital needs, but when I'm talking about financial reinsurance, I'm talking about something that you're looking to do to achieve a specific business goal. Perhaps you're looking to manage the statutory element to the balance sheet or you're looking to provide financing for new business. It's reinsurance, so there's risk transfer, but certainly your purpose is more of an underlying business practice than just to transfer a specific risk element. Another important point on reinsurance is that it's low risk, not no risk. We're looking for amortization over a short time horizon, but ultimately we are retaining the catastrophic risk.

In terms of the problems that we've talked about related to financial reinsurance capital for XXX, everyone is familiar with the humpback reserve pattern. If you look at a block of term business issued, there are some 10-, 20- and 30-year term blocks. Let's say you have a peak somewhere between years eight and 12. You primarily have a mortality risk. One reinsurance solution that has been successfully implemented would be what I call a revolving short-term commitment. Essentially, the reinsurer will guarantee to cover the capital needs and the redundant reserves for a given period of time, at which point, presuming the product has performed well, if the reinsurer still has access to capital, then look to renew the agreement.

We, perhaps, hope to be able to go out five to seven years. Obviously, at this point, the risk of the reinsurer is that five to seven years out they have capital issues, the business hasn't performed well and the ceding company says it will no longer reinsure. For the ceding company, the risk is that the reinsurer is unable to actually access capital to renew that commitment.

I'm going to discuss why AXXX is a problem. The peak is reached over a much longer period. The underlying risk profile is much more susceptible to interest rate risk, and this is much less attractive in a fee-based environment. As a reinsurer, we have set parameters that we use to judge what is low risk, and a 20+- year risk with interest rate risk doesn't meet our definition of low risk. If you can access outside investors that feel comfortable taking on longer-term exposure and who are more comfortable with the interest rate elements of that exposure, this obviously represents a very real opportunity for them, to the extent that those communities aren't as comfortable with the mortality elements. That's one of the reinsurer's specialties. I think the AXXX solutions represent a very real opportunity for the capital markets and the reinsurance community to work very closely together.

I'm going to lay forth a biased view of investment banking solutions. As you listen to Alex talking about things that have been done, just think in the back of your mind what the minimum size of transaction is that capital markets can provide a

solution for at the moment. What is the capital market's real appetite for risk and where do the catastrophic risks lie?

As we look at Addison slide #2, page 11, we see that it's a very simplistic view of a typical special purpose reinsurance program. The external investor is going to provide funds to an entity. That entity is going to accept reinsurance from a ceding company. The reinsurer of the ceding company is going to get reserves credit by use of the Reg 114 trust. This entity, in fact, is a special purpose reinsurer. Then a risk block provider of one sort or another is going into the external investors and convincing them that they have a very highly rated instrument.

I believe that the most economical and efficient solutions to the capital issues are going to occur when the reinsurers cover the insurance risks and when the banks provide the capital and cover the credit risk. Ultimately, I believe we're going to have the most efficient access to capital when everybody takes on the risks that they know and understand best, those with which they're most comfortable.

MR. ALEX COWLEY: From our perspective as an investment bank, we don't see any issue between reinsurance and the capital markets. We see those as largely complementary in nature. Essentially, I would agree with many of the comments that Dave made. If you want to do a relatively small transaction, with perhaps a financing amount up to \$50 million, the reinsurance market is the place to go. That's not where the capital market is going to deliver you a cost-efficient solution. If you're looking for a solution that's \$100 million dollars plus, then the equation changes, and the capital market is an alternative place for you to look at your solution.

Essentially, our view is that reinsurance provides short-term solutions that are often cashless and the financing is basically provided as short-term. Whereas the capital market has the ability to provide long-term solutions, providing cash in large amounts. Having said that, in large part, reinsurance and the investment bank and capital markets are complementary solutions. I would like to run through and compare and contrast the relative strengths and weaknesses of the two.

Throughout this presentation, I want you to understand that our perspective is that both markets are viable. They fit different needs. If IBM, by way of example, wants to raise \$50 million, it goes to a consortium of commercial banks and raises it. If it wants to raise \$200 million, it goes to the capital market. So these solutions exist side-by-side. They don't compete. They're complementary.

But comparing and contrasting the two solutions, the broadest capacity is clearly available in the capital markets solutions, which are billions of dollars in size. And when we come to look at a couple of the examples I'm going to talk about later on, we'll see that that is, indeed, the case.

In terms of familiarity with the underlying risk, the reinsurance community knows these risks far, far better than the capital markets. That means there's a consequence that the solutions we bring to market are either wrapped by a AAA monoline guarantor or there is a very substantial invested education process to inform investors what the underlying risks are. Investors don't take naïve risks.

In terms of the ability to accept term financing, we can do transactions for 20 or 30 years.

In terms of counterparty credit risk and understanding what the transactions are, there are thousands of people that trade credit day-to-day at Lehman Brothers. They're credit people. And we think we have the best understanding of the counterparty credit risk.

In terms of tax efficiency, I would argue in favor of the capital markets. In reality, that may not be the case, but surplus relief is a tax inefficient trade. The proceeds one gets through a surplus relief contract are taxable income, so that is tax inefficient. It's not so much that the capital markets are tax efficient, but rather the traditional solutions are tax inefficient.

In terms of fastest transaction completion, the traditional reinsurance market wins easily.

Finally, in terms of signaling value, I would say capital market alternatives are best. You're actually doing a transaction that demonstrates to shareholders that you are efficiently managing your capital base. It's executing a capital market transaction. It's a very visible transaction. You demonstrate to your shareholders, equity analysts and the investment community at large that you are managing your capital base.

There's a whole spectrum of options that any company has in terms of managing its capital base. At the one end, you can go out and raise equity. That's going to cost you 12 to 18 percent post tax. The other end of the spectrum, you can go out and get unsecured holding company debt, which, depending on the rating of your company, is going to cost you libel plus an amount that depends on the rating of your company.

I've selected a variety of options that I want to discuss today. The first one is XXX capital relief. This provides a permanent solution through the term of the underlying business. As Scott mentioned, XXX at its peak is going to be a \$100 billion drain on the industry. The total capital and surplus of the industry is \$230 billion. It is a huge impact on the industry. And relying on a one-year LOC is not a very good solution. Anybody running your IIP business or your funding business that's matching 30-year liabilities with one-year assets will probably have a pretty short tenure with the company. It's not going to happen. So relying on

one-year LOCs is not a good solution. Putting in place a 30-year solution is an option.

Surplus relief is an option that Dave already discussed at length, and I shall not dwell on that any further.

Targeted block securitization is a transaction that establishes an intermediate holding company above the operating company and raises debt at that company, with the debt being financed by dividends paid in respect of the book of business that's being securitized. Analogous to that though is tracking things where you're actually selling off the equity piece of the particular book of business that you're securitizing. I'll talk about that shortly.

Just briefly, I'm going to discuss areas in which we've already seen the capital markets provide capital to the insurance industry, focusing on those in the life insurance sector. There's a whole host of life as well as P&C. We've already delivered solutions for term insurance business, funding XXX reserves, redundant XXX reserves, in addition to securitizing the embedded value associated with books of business.

In terms of the potential, there's universal life, or AXXX. There's also guaranteed minimum death benefit (GMDB) reinsurance. Of course, that's another one that is taking a lot of time. Life settlements can actually be moved right now from the potential column to the completed solution, with one transaction already having been executed where the life settlements have been securitized.

So what exactly is it? What is this life insurance securitization? The focus is always going to be on books of business that have substantial embedded value, and it's not just substantial embedded value in and of itself. It is embedded value that is robust. It is predictable and can be demonstrated to the rating agencies. It's key that it's demonstrated. You can't just go in there and say you have this embedded value. That doesn't happen. The life insurance securitization will be a source of capital to the industry, and that enables the industry to find new sources of capital and recognize an asset on the balance sheet. The embedded value isn't currently recognized.

On Cowley slide #1, page 3, the framework that we use is represented in the bottom left-hand corner. We have a column here of liability value. That is the statutory reserve that you are forced to hold in respect to the book of business. That's what we refer to as the economic reserve. Raise the amounts of money that you need to set aside for the liability on an expected basis using realistic assumptions for mortality, lapses, etc. That difference, we believe, can be securitized.

There are various layers of financing there. At the very bottom, there is an equity to meet the expected deviations away; it's analogous to economic capital. At the very top, there is a debt piece in respect to the pure redundant catastrophic risk that's going to be financed using debt capital rather than using your equity capital. By putting debt capital on the books, you're going to lower your weighted average cost of capital and drive up your ROE. In the middle, there's a mezzanine piece, and there are various books of business for which it is suitable. It's essentially for books of business that are predictable, reliable and able to be modeled.

Looking at life insurance from the perspective of the investors, in any offering memorandum associated with a transaction they're going to want to see that the book of business that they're securitizing is robust, predictable and able to be modeled. They are key to any transaction. Key to them will be the expected duration of the securitization. How long is it going to be? What's the tenure of it? Is it 20 years? Will it amortize at a particular moment in time? How long are they going to have their money out there?

The existence of a debt service coverage account can be a key component. This is a portion of the proceeds that is set aside to meet any adverse fluctuation. With that, if in any time period there is insufficient revenue flowing from the book of business, you can tap into the debt service coverage account in order to make the interest payments to the note holders. Depending on the transaction, that is key for the investor community.

Investors want a financial guarantor. The financial guarantor community is largely a AAA-rated community that has wrapped some of these transactions. Investors are buying a piece of paper that's not only asset-backed, but is also being credit enhanced to carry the rating of the wrapper, so that in many cases it will be AAA. That's key for various transactions.

From the rating agency perspective, the key point is that the debt that's being raised can be classified as operational or financial leverage, or even, in some cases, off balance sheet. There have been a variety of deals that have been done. Over in the U.K., Barkley's Life and NPI, or National Product Institution, got a couple of landmark transactions in recent times. In North America, we see XXX capital relief executed by GE Financial, Prudential and Skandia.

To bring it all together, our role is to find a solution that is going to meet the needs of various entities. From a rating agency perspective, we have to come up with a solution that will protect the bondholders. Don't forget the rating agencies here have two roles. Not only are they rating the insurance company, but they also provide a rating of the notes that are sold to investors. Here, the key concern from our perspective is the protection of the bondholders.

From an investor perspective, they want to make sure that the return they're getting is commensurate with the risks that they are taking. From the regulator's

perspective, they want things designed to protect the policyholders. And finally, from the issuer's perspective, they want to optimize the use of their capital in order to achieve the ROE.

Anyone that's met with one of my banking colleagues has seen an incredibly powerful chart that shows you the relationship to market value divided by book value relative to the ROE. If you drive up ROE, your market on the book will go up. There's about a 90 percent correlation ratio. It's an incredibly powerful chart.

I want to talk about a couple of specimen transactions. The information I'm going to take you through is information that's in the public domain. GE executed a transaction in July 2003 to find financing for its XXX business. Basically, First Colony, which was the relative entity here, reinsured a book of business to a newly established entity called River Lake Insurance Company, which in turn issued surplus notes to a trust, which in turn issued securities to capital markets investors. The proceeds from all of that flowed back to a Reg 114 trust enabling First Colony to get reinsurance reserve credit in respect to that reinsurance contract.

The actual securities that were issued by the capital markets trust were wrapped by Municipal Bond Insurance Association (MBIA), so that what investors were buying was a piece of paper that was rated AAA carrying the rating of MBIA. To date, \$600 million of financing has been drawn down under that facility. In total, the facility provides up to almost \$1.2 billion of financing. From our perspective, I would say it minimizes the cost and it maximizes the flexibility of the solution to the company.

The next transaction I'd like to talk about is the transaction that Prudential executed in December 2001. They executed this transaction to securitize \$1.75 billion of embedded value on their books. They did this at the same time that they demutualized. Basically, at the time Prudential demutualized, it consisted of two distinct parts. There was a low-growth, low-ROE, closed book of business, which is the book that was securitized, and there was a high-growth, high-ROE, open book of business.

The aim here was largely to deconsolidate the low-growth, low-ROE book from the rest of Prudential. That was done through two transactions. An intermediate holding company was established between Prudential Financial and Prudential Insurance, which raised \$1.75 billion of debt through the issuance of notes to the capital markets. That was partly wrapped and partly unwrapped, which is an interesting variation. Two-thirds of the transaction was wrapped by Financial Security Association (FSA) in that particular case and was credit enhanced up to AAA, which is the rating of FSA. One-third was unwrapped, so investors are taking mortality risks, lapse risks, etc.

At the same time as that transaction, Prudential issued \$175 million worth of class B equity to private markets. By doing this, they effectively deconsolidated the

closed block from the rest of Prudential. If you look at Prudential's financials now, they report the closed block separately. And equity analysts are now focusing on what's referred to as the financial services business, or the open block.

To conclude, there's a variety of options available to you in terms of financing any embedded value on your book of business, whether it's XXX related or some other form of embedded value. On the one hand, you have XXX capital relief. On the other hand, we have the tracking stuff, which is what Prudential did when they sold the class B shares to the equity.

MR. STEVE KRAYSLE: I'd like to ask Scott if he could talk a little bit about the differences between the financial and operating leverage.

MR. ROBINSON: We could spend an awful lot of time on that topic. We spend an awful lot of time within Moody's distinguishing between the two. If you look at the brokerage type industry, they would have tremendous financial leverage if you included all their debt.

There, you essentially have backed debt. If you look at the insurance industry, there's been a lot of growth in a number of Products such as funding agreement business. Now is that debt? We've had a number of parties ask us why we aren't treating that as debt. Essentially, it is debt in the end markets. It's sold as debt. It's funding agreement issued to a special purpose vehicle. Debt is issued to the marketplace. However, in that case, we have chosen to include it as operating leverage.

I won't go into all the details, but a key metric we would look at is how the proceeds are used. In that case, this is back debt essentially. We spend an awful lot of time looking at the asset liability management (ALM) and so forth. In the case of XXX and some of the solutions that have been proposed there, again, we're looking at the ALM. In that case, we're not looking for a co-mingling of assets. In the example I gave, there would be a separate entity set up. That way, we can track the capital to see exactly what the investments are.

But your question is really a pretty broad one. In looking at companies, especially larger companies that have CP programs, for example, some of them use back CP. Is that debt or not? There's not really a simple issue there between operating and financial leverage. But I'd say the big issue there is how companies end up using the proceeds.

MR. PHIL BIELUCH: I have a question for Alex. In the First Colony example, you showed you used that 114 trust. In the 114 trust, to my understanding, the assets are valued at-market, and yet the liability is still at book. If the interest rates spike, how do you do the asset liability matching within that 114 trust? And to your colleague, isn't this more of an advantage to reinsurance? Reinsurance is always a book and doesn't float at market as that 114 trust does, correct?

MR. COWLEY: I can't answer that question exactly as posed. Certainly, the investment policy guidelines around that particular Reg 114 trust are not in the public domain. But I can generally say that a Reg 114 trust has to be marked to market on a quarterly basis in order to get reinsurance reserve credit and in order to be able to take money out once the actual amount of the proceeds exceeds 1 or 2 percent of the reserve requirement. Then you should come up with investment guidelines that appropriately reflect that. So investing shorter-term rather than longer-term may be a way to go.

MR. STEVE SCHREIBER: I have two questions. Alex, can you share with us who's buying these Dutch option securities? My understanding in the closed block securitizations is that the insurance industry was a large buyer of the debt that was issued.

My second question is for Scott and goes back to operating leverage and financial leverage. Can you explain Moody's view with regard to the closed-block securitizations, which I think has evolved over time?

MR. COWLEY: The Dutch auction security market is a little ahead of market, I suspect, by many people. In total, it's currently about \$250 billion in size. With the Dutch auction market, a piece of paper is sold to an investor, which will have a life of 49 years, for example. But the price resets, depending on the actual option, every 28 days, for example. Typically, those securities are sold to treasurers, given that a significant portion of the Dutch auction market is wrapped by third-party monoline financial guarantors. What the treasurer is buying is a piece of paper that carries an AAA-rating that he expects to be able to put back to the auction every 28 days. But it is a 30-year piece of paper, so it's not like CP where you have the right to put it back. There is no such right with the Dutch auction market.

When you look, however, at the closed-block transactions, there were three securities with Prudential. One was floating and two were fixed. Two were wrapped and one was unwrapped. Those were sold to different groups of investors. In the case of the unwrapped transaction, a significant amount was sold to insurance companies that understood the risk. In the case of the wrapped transactions, it went in large part to money managers.

MR. ROBINSON: As far as closed-block securitization, we've seen a couple, one being Prudential. Moody's current view evolved over time. It is financial leverage, which gets back to the point I was making about use of proceeds. We see participating whole life insurance. It's one of the most credit-worthy products. A company that demutualizes does not necessarily want to stay in that business line because of the low ROEs. So when a company securitizes, it essentially sells off and gets rid of that business. It is losing some of the most stable cash flows, which can

be used to service debt at the holding company. It has essentially pushed those aside.

We can be pretty sure that they're not going to be getting the proceeds they're receiving now and using that to finance selling more participating whole life business. For that reason, we do consider that financial leverage. When we have gone through the analysis of closed block, we have become very comfortable with the redundancy of reserves for participating products. We could actually increase the financial leverage targets for that company so we would become more comfortable with that business.

FROM THE FLOOR: One thing strikes me underlying all the structures you're putting together when you're talking about these monoline companies. Are there limits on the capacity that they can wrap on this? And is there any risk in terms of that?

FROM THE FLOOR: I'm not an actuary, but I'm from a monoline company and I was involved in the First Colony securitization. I think the answer to that question is that there's going to be a capacity issue in the long term. But Alex is definitely right that we work in the capital market solutions providing certain solutions to certain large-size transactions. – When we analyze these transactions, we definitely are very concerned about the same type of risk that the reinsurer will be concerned about. We typically rely on actuarial consulting firms assisting us in providing these analysis.

When it comes to capacity issues, I think we have yet to come to an industry consensus on how to determine the absolute size in terms of the longer term, issuer-by-issuer, - particularly the mortality risk. But there's no unlimited capacity in the monoline industry. The industry itself has a limited number of participants with a very limited size of capital. We are semi-regulated by the rating agencies, so our capital adequacy is determined by Scott and his colleagues and the other rating agencies. We have to be very careful when we provide a wrap.

We know what we're doing. The attachment level needs to be comfortably high to justify the shadow ratings we're looking for. I don't have a number to share with everybody here because there's only one transaction that has been completed. We don't think that it's a solution for every company that's looking for XXX solutions, but to the extent that we feel comfortable, we will provide a wrap on the right occasions. And the capacity issue will be dealt with as the markets come to an equilibrium.

MR. COWLEY: There is a new capital coming to the financial guarantor community. The new one was established very recently, and it's just been rated. It is actually a financial guarantee reinsurer, as opposed to an insurance company. Because new

capital is coming to the financial guarantee industry, we would expect to be able to not have problems with wrap transactions going forward.

FROM THE FLOOR: I'll pose a question to Alex. There seems to be a shift in domicile for the captives that are used for these vehicles. As Scott told us, historically we built our dependency on letters of credit by having reinsurers shift the risks offshore and then using the letters of credit as collateral. But these new solutions that we're hearing about seem more focused on domestic captives than offshore. Could you explain that?

MR. COWLEY: I think each company has to go through its own determination. You're absolutely right on the decision of onshore versus offshore. There are a number of criteria that will go into that determination. It's equally valid to use an offshore solution. Over the last four and a half years, we've seen many structures that involve the use of an offshore reinsurer. I think it's going to be entirely company specific as to the right particular solution, bearing in mind the particular constraints that each company has.

MR. VADIM MARCHENKO: I have two questions. First, it looked like there was only a handful of transactions so far. Would you expect to see more of the transactions?

My second question is if you do see a lot more transactions, how would it change your view of the industry? Would it make it more favorable or would it be negative?

MR. COWLEY: In response to whether we expect there to be more transactions of this nature, the answer is unquestionably yes. There is a significant interest in a whole variety of transactions. And we've only discussed here today a very small subset of the transactions that are out there. We would expect there to be more transactions similar to ones we've seen today, but also others. This is not the only technology that's out there.

MR. ROBINSON: There are a number of transactions currently in the pipeline. As far as the impact on the industry overall, it really depends on what is being securitized. In terms of XXX and if we ever get to an AXXX type solution, it is, in fact, beneficial. Companies are getting away from the big issue of funding, what you could potentially call long-term debt with these one-year LOCs. So as companies find a match, we're much more comfortable from a ratings perspective.

MR. BILL WELLNITZ: Scott, how do the LOCs factor today in companies' current ratings? And do you expect that Moody's will be changing their posture on that any time soon?

MR. ROBINSON: If you look back historically how we've looked at LOCs, we've looked at it a couple of ways. If you're using, for example, an external party,

potentially there's a liquidity type issue if the funding is not there. So that's something we've looked at. Historically, we've looked at more in the liquidity analysis and capital analysis of the companies. There's potential. We could look at LOCs and change the way we incorporate that as far as operating leverage. We are looking at the way that we treat that now so that we're consistent when we're looking at all these solutions. We essentially don't want to be arbitrated against. But historically, we have spent a lot of time looking at those companies that are relying on LOCs. A lot of those companies are a part of larger entities. And a lot of the capital management may be done in Europe at a parent company. So there's more liquidity there and more capital there. But it is an issue, especially for smaller companies.

FROM THE FLOOR: This is a question for Scott. To what extent do you see that securitization is actually injecting new capital into the industry? If it is putting in good amounts of capital, I'm a little puzzled by your somewhat neutral answer. I would think that Moody's would view that very favorably for the industry as a whole.

MR. ROBINSON: I'm not sure I was really neutral when I talked about solutions for solving the problem of one-year LOCs. That's a very positive development for the industry. You may have thought I was being neutral when I was talking about securitizing more stable blocks of business. That's where we get concerned. When we see a company securitizing more stable blocks of business and more stable cash flow, it is not there in the future for companies. Whereas before, going back to the closed-block securitization, participating in whole life business is a very creditworthy product. If you stack that up versus all the other products, such as universal life (UL) with secondary guarantees and a lot of the new products, it is a very creditworthy product. And if a company securitized that and all of a sudden went off and started aggressively selling some other products, that's not a credit positive for the company.

As far as new capital coming in the industry, you make a good point. That is a positive.

MR. WELLNITZ: David, I think you mentioned in your talk that the current difficulties with trying to come up with creative reinsurance or capital market solutions for the AXXX issue might speak to issues around the question whether reserves are truly as redundant as we might think. I would suggest that there are probably two other explanations for that. The first is the lack of a decent reinsurance solution that separates the other economics from just this issue. So we start dealing with whether or not your investment spreads or your mortality spreads are appropriate. It's hard to separate those issues.

The second part of that is relative to the overall pricing the product. If the market isn't paying the right price for the cost of that guarantee, then you can't just take it out.

MR. ADDISON: I would agree with what you're saying. For a lot of guarantees in the market, not just AXXX, we look at a lot of guarantee providers and a lot of products. As reinsurers, we sit back and scratch our heads and try to understand the pricing and, consequently, are not as successful as our clients might like in terms of coming up with solutions in which they like the pricing.