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Session 64PD
Liquidity Management for Life Insurers with Institutional Business

Track: Investment

Moderator: VICTOR MODUGNO
Panelists: LAURA BAZER†
LARRY M. GORSKI
ZAHID HUSSAIN
Recorder: VICTOR MODUGNO

Summary: The sudden and unexpected default of General American has focused reviewed attention on liquidity management. General American was a large, highly-rated, and well-capitalized life insurer that defaulted on putable funding agreements that were issued to money-market funds.

Topics:
- *What happened at General American and why did the regulators and rating agencies miss the problems?*
- *Could something like this happen again? What was the impact of reinsurance?*
- *What is the effect of adding institutional business such as putable funding agreements on liquidity management?*
- *Are there prudent levels of this business that can be beneficial?*
- *What is the effect of funding agreements with downgrade provisions on liquidity risks, and do such provisions create a preference for sophisticated institutional contract holders?*

Mr. Victor Modugno: We've assembled an outstanding panel representing rating industry and regulatory viewpoints. I'm a consulting actuary out here in Los Angeles who specializes in institutional products.

The idea for this session came about from an Academy group that was working on reserves for guaranteed investment contracts (GICs) with downgrade provisions. While that group was deliberating, General American defaulted on a large block of floating rates funding agreements that it had issued to money-market funds.

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†Ms. Bazer, not a member of the sponsoring organizations, is Vice President and Senior Credit Officer in Financial Institutions Group at Moody's Investors Service in New York, NY.

The sudden default of a large, highly-rated, well-capitalized life insurer focused attention on insurers with large blocks of these types of contracts. Unlike individual policyholders, these institutional policyholders sit by Bloomberg screens and watch for the first sign of trouble to exercise their options to take money out. It was felt that insurers with these liabilities had special needs in liquidity management.

Our first speaker, Laura Bazer, is vice president and senior credit officer in the Financial Institutions Group of Moody's Investor Service. She was the analyst for General American at the time they defaulted. She will talk about what happened there and what Moody's view of the risks is in this business.

Prior to joining Moody's in 1993, Laura worked for six years as a lending officer in the insurance and international divisions of the Bank of New York/Irving Trust Company. A graduate of Cornell University and a Fulbright Scholar, Laura holds an M.B.A. in finance and international business from New York University and an M.A. in economic and legal translation from the University of Geneva, Switzerland.

Our next speaker is Larry Gorski. Larry is Life Actuary for the Illinois Insurance Department, a position he has held since 1976. Larry will be giving the regulator's viewpoint. Larry has been active in numerous NAIC projects, including the Invested Asset Working Group, the Standard Valuation Office Oversight Working Group, the Asset Valuation Reserve/Interest Maintenance Reserve Study Group, the Life & Health Actuarial Task Force, the Life Risk-Based Capital Working Group, the Valuation of Securities Task Force, and two Liquidity Risk Working Groups. Larry is probably most responsible for the NAIC activity in this area by insisting that downgrade provisions in GICs be banned on public-policy grounds in response to a question on reserves. While Larry has come over to the industry's position that this is a liquidity management issue, there was a tremendous amount of activity with conference calls, papers, consultants, and lawyers in-between.

Our last speaker is Zahid Hussain. Zahid is director of new initiatives at Aegon Institutional Markets, where he is responsible for new product development. Zahid is an FSA and a chartered financial analyst. Zahid joined Aegon last year after their purchase of Transamerica where he had been since 1993. At Transamerica Zahid worked on risk management for institutional products, asset/liability (A/L) management, synthetic GICs, and terminal funding. Zahid started his career at CIGNA, where he worked in investment, pensions, and health insurance.

Ms. Laura Bazer: It was a year ago that the General American crisis took place, but it's still a very important topic today. It has galvanized the industry into taking action to prevent this sort of thing from happening again and has brought this group here. You have heard from my biography that I'm not an actuary.

My purpose is to present Moody's views on institutional products and their risks so that, if nothing else, you can come away with some new ideas on how you can do

your jobs better. I would like to revisit the General American story because in our view this was a case study on how not to run a book of institutional spread business. We'll look at the lessons learned, and then we'll turn to the present and Moody's views on institutional products today.

Let's go back almost a year ago to last July. What caused a reasonably healthy $30-billion life insurance group to lose its independence in a matter of weeks? Well, as you know, the regulators did not deem this as an insolvency; rather, it was a case of inadequate liquidity. But we believe that the situation was more complicated than this.

These are the reasons for the downfall of General American: (1) a major exposure to funding agreements, which are in our view a highly credit- and market-sensitive product; (2) the financial deterioration of a key reinsurance partner; (3) a concentration of holdings with a few large institutions followed by a run on the bank with only seven days to execute; and (4) inadequate liquidity.

Let's look at market exposures and investor concentration of General American before the crisis started. In June of last year General American's total direct-funding agreement exposure was $6.8 billion, or over 400% of its statutory capital.

This represented 20% of the funding agreement market, but, more significantly, the company had $5 billion in the 7-day put segment, which was 60% of the 7-day market. You can see that the company was overexposed to the riskiest segment of the market.

Let's take a look at its reinsurance partner. This was Integrity Life Insurance Company, which we had rated Baa1 for insurance financial strength before any of this took place. For those of you not familiar, Integrity was part of the ARM Financial Group of companies, a relatively new Kentucky-based insurance company specializing in funding agreements.

We had deemed the company's capital to be very low. It had considerable interest-rate exposure in its asset portfolio. Clearly this was not the strongest reinsurance partner for General American. In fact, for those familiar, this was really a fronting arrangement that enabled ARM Financial to sell these products because General American had the ratings.

ARM had the product and General American had the ratings. If you look at General American's investor population, 37 money-market funds and banks of which 3 held $2 billion held all of its paper. You are starting to see the picture emerging of a company that had a huge exposure to a risky product, a weak reinsurance partner, and a large concentration of holdings. These are the first three reasons for the crisis.

Let's turn to the run on the bank. Here is a partial chronology of events. What really triggered the whole situation, in our view, started not with General American, but with ARM Financial. It happened on July 29. This was the day that ARM Financial announced its second-quarter earnings in which it stated large asset-related losses for the second quarter and the first half of the year. It also announced the recapture by General American of its $3.5 billion funding agreement portfolio with a 30-day delay. Now this was news both to the market and Moody's.

For us, from a rating agency perspective, it meant the following: General American's key reinsurance partner was in serious financial difficulty and had lost half its capital with these asset losses. Given that ARM Financial was in difficulty, it meant that the recapture might not take place in those 30 days if the Ohio Regulator of Integrity decided to seize the assets. It meant that if the asset recapture took place, that General American would have a large direct exposure to funding agreements and seven-day puts. It would also have the exposure of ARM's assets, so this was a deterioration of both companies' financial strength. We proceeded with the downgrades.

Now the rest is history. Puts that had not been exercised when ARM announced its losses were exercised. General American couldn't muster the liquidity to avert a technical default and it placed itself under the administrative supervision of the Missouri Department.

What were the lessons that were learned as a result of this crisis? First and foremost is that asset liquidity is key. Both companies had largely investment-grade assets, but they were illiquid. Seven days is a very short period, including three days for settlement, for any company to liquidate a large portfolio of assets; particularly in the summer months and particularly with bad markets, all of which applied to General American.

So there were bad markets, the doldrums of the summer months, and illiquid assets. Then put options were not managed right. Both companies' managements staunchly believed that the funding agreement business was a relationship business. All they would have to do is call up the holders and dissuade them from exercising their puts in this kind of a crisis. This was a fatal misjudgment, which cost General American its independence.

Committed and preexisting alternative sources of liquidity are essential, and I emphasize committed and preexisting. General American, in fact, to our knowledge, did have some alternative liquidity, but it was either unwilling or unable to use it. When it looked for other solutions, it was just too late, or they were too expensive.

Concentration risk affects both buyers and sellers. What do I mean by this? Well, for General American it meant it had its fate in the hands of essentially three holders of the paper, the biggest holders. But for those holders, it also meant that they had a huge exposure to one issue where they couldn't pay them back.

Some of these holders, by the way, didn't realize what their exposure was until the worst possible moment. When they saw how much they held, they panicked and it exacerbated their put activity. Funding agreements have inherent downward ratings spiral risk. This means that when there's financial deterioration, the rating agencies downgrade a company that begets puts, which begets further downgrades and so on, in an endless downward spiral. This is an inherent flaw in certain products.

Finally, in today's highly interconnected financial services markets, problems in one sector can lead to a domino effect in other markets. A case in point, in the funding agreement market there were direct links to money-market mutual funds to other unrelated GICs, even to pension GIC market, to the Euro medium-term note market, to asset-backed career profile system programs and derivatives markets.

Quite frankly, if Met Life had not stepped up to the plate and acquired General American, it could have been a potentially serious situation. That brings us to today. A year has gone by. What are Moody's views on institutional products now?

Basically, although things have calmed down with General American, we continue to believe and have always believed that institutional products have greater risks than other ordinary types of life products. We do recognize, though, that not all products have the same risk. We would review them on a continuum. At the bottom end, without a doubt, we'd place the seven-day put funding agreement, and at the other end the full-service pension GICs. We do believe though, despite the risks, that these products can be an acceptable supplementary line of business, given proper risk management.

Now everybody asks us, what is the number? What are acceptable exposures for experienced issuers? For experienced issuers only, 20-30% of general account liabilities may be acceptable, and I emphasize experienced issuers only. All exposures will be determined on a case-by-case basis.

There are a lot of issuers now getting back into the business having been in it and having had troubles before. I don't know that we would necessarily consider them experienced issuers. When we make our determination of what we feel comfortable with, ownership and paternal support can be key factors.

What about companies that make funding agreements or institutional business their primary line of business? Well, the less that they look like insurance companies and

the more they look like investment banks or finance companies or hedge funds, the more we will use or apply the ratings of those latter companies. Quite frankly, finance companies and investment banks generally have lower ratings than insurance companies because they have a higher risk profile.

Let's take a step back and look at today's institutional market because it has changed since last year. First of all, on a short side, the seven-day putable product is pretty much gone in terms of sales. We believe this is a good thing. It was a flawed product to begin with.

In the other maturities, for 30-, 60-, and 90-day put products, there has been some sales growth but it appears that companies are replacing their 7-day products with longer products.

The real growth is in the funding agreement note issuance programs market at the longer end of the market. There are your medium-term note programs and asset-backed commercial paper (CP). The reasons for this growth is, first of all, to stem the decline and traditional GIC portfolios, to offset shrinking general account assets as products moved to separate accounts, and to add to their spread earnings in the income statement. All of these reasons are acceptable in moderation as long as the proper risk protection mechanisms are put in place.

What are our views on the risks today, a year later? Well, since we're mostly in the longer end of the market, the biggest risk of Euro medium-term note (EMTN) programs is rollover risk, which means the inability to roll your paper when it comes due. But there's also liquidity risk although most people associate this with putable products.

If you can't roll your EMTNs when they come due and you have year after year of maturities coming due, you could have a liquidity problem, particularly if you have troubled assets or interest-rate risks or A/L mismatches. There's also ratings spiral risk.

Again, we saw this with General American, but it also applies to other products and other areas where there are downgrade provisions. For example, ARM Financial had three asset-backed CP deals where the ratings downgrade provision had unwound the deals when it hit a certain trigger level. I was in a reinsurance treaty discussion and heard that there are ratings downgrade provisions in reinsurance treaties, which caused recapture. In our view this is a risk for spiral.

A next risk is inadequate alternative liquidity and, finally, overconcentration. You'll see all, or at least six out of seven, of these risks were real problems that General American encountered. These risks are still here today in our view.

We do believe though that there are mitigating techniques for these risks. The first would be for the company to limit its exposure on the short end of the market as a percentage of its total institutional business.

A company can ladder its EMTNs so that they don't come due all at once in big chunks. They can limit asset quality or interest-rate risk in their GIC segment. What we're seeing already in some of these EMTN programs is huge exposures to commercial mortgages.

It seems that management has short memories because this is what started the old GIC crisis at the end of the 1980s and the early 1990s, so we have to watch out for that. Companies can cash-match close to maturity. They can have formal committed sources of alternative liquidity, and, more importantly, make fire-drill plans so that they don't have to start thinking about what assets they're going to liquidate at the very last minute when it's too late. Finally, they can diversify their customer basis.

Now with this presentation we are not advocating that everybody get into the institutional product market. We're certainly not advocating that companies should ramp up their exposures to 20-30% from zero of general account liabilities.

Companies are getting into this market. It's a fact, and we figured it's better to comment on what companies are doing rather than to let it pass us by. We do believe these products can be acceptable, with supplementary lines of business, given proper risk-mitigating systems.

Mr. Larry M. Gorski: We've had one speaker talk about liquidity, and I think maybe it's time to give the regulatory definition of liquidity. When I say the regulatory definition, I'm only speaking for myself right now. There are a few other regulators in this room. They may have a different view. There may be other people in the Illinois Department who have a different view.

This is my working definition. Liquidity is the ability to meet all cash demands as they arise on a timely basis without experiencing financial statement losses.

One of the key words here are "all." That means even very stressful scenarios "as they arise." You need to consider that the exercise of options "on a timely basis" means on demand, and that has a sort of interesting sideline to it. Later on in my comments I'll be talking about some of the work of an NAIC working group and the work being done by the New York Insurance Department and some of the advice being given to those two groups by the AAA and the Life Insurance Council of New York.

One of the items these groups are working on is some type of supplemental reporting to regulators on liquidity—an analysis of demands and resources. One of

the elements of the reporting requirement is that cash demands would be identified taking into account all forms of insurer-deferral rights, which is something I don't think makes any sense from a regulatory perspective.

When I'm looking at liquidity, I want to know what's on demand today before implementing any type of deferral rights. Last, "financial statement losses" means the difference between statement value and fair value.

When the General American crisis broke, we all put our heads together to try to determine what the causes of the problems were. I think Laura did a very good job of identifying all the causes, so I won't spend much time on that. We all walked away recognizing there was an extreme concentration in a single product, reliance on an inadequate business partner, the reinsurer, and an unrealistic assessment of the significance of options written.

There's one point that Laura failed to mention when she had her chronology of events. I think some of the early dates were July 29 and 30 and early August of last year. That coincided with my vacation so I think one of the causes of the failure was I was on vacation that week. That was a joke.

After the problems with General American were identified, regulators wanted to start taking some action in this respect. We met with the industry as we normally do. The normal industry response to any type of regulator inquiry is to say, "Well, you guys already have the ability to handle problems like this," and we go through a laundry list of regulatory tools. Invariably we talk about reserve requirements, including asset adequacy analysis.

Clearly that tool doesn't really get to liquidity concerns because asset adequacy analysis focuses on moderately adverse deviations and experience, not the kind of run-on-the-bank situation we were witnessing with General American. Once we discount actuarial opinions and asset adequacy analysis, people point to risk-based capital (RBC) requirements, and the same story applies here.

RBC was never designed to deal with very extreme events like a run-on-the-bank scenario. In fact, whenever we would talk about liquidity within the context of RBC, the industry and the actuarial profession would point out very quickly to us that that RBC was not designed for this purpose, even though it does take into account more stressful scenarios than asset adequacy analysis testing.

The model investment law does have some impact here. While only a few states have adopted the model investment law, there is a requirement that the board of an insurance company adopt investment guidelines. The investment guidelines are supposed to address the liquidity needs of a company and take into account all aspects of the company's operations, the kinds of products it sells, its investment

strategies, its appetite for risk, etc. Illinois is one of the states that adopted the model investment law. We adopted the law in 1998.

One of my responsibilities is to review board-adopted investment guidelines. I have to report that it's been a very disappointing experience. From the documents that are provided, and there may be other investment guidelines that are not submitted to us when we ask to see them, the board-adopted investment guidelines usually read something like, "We'll do everything the investment law tells us to do and nothing more."

It's a pretty terse form of compliance and it's really kind of sad because when the model investment law was being developed, the industry was hoping to have a "prudent-person" approach taken in the investment law. The focal point of that investment law was going to be the Board-adopted investment guidelines. Well, for various reasons, that never came to pass. It was decided to put the idea into the pigeonholed version of the investment law with the idea of using it as a testing ground so at some point in time we could move to a prudent-person approach. Well, with the experience I've had at least with board-adopted investment guidelines, I'm not sure that day is ever going to get here.

The last item that we considered is using the policy-form approval process. As Victor said, when this issue with General American broke, my immediate reaction was disapproval of all funding agreements, GICs, etc., because of the extreme amount of liquidity risk associated with contracts sold into the institutional markets. I changed my view a little bit on that. Maybe we need to think more seriously about the products that we are approving. The question here is, "Can liquidity needs be accurately assessed and covered to avoid situations like the General American event?"

Once we went through a laundry list of items on our agenda to deal with liquidity concerns and we all walked away with the belief that the items were not able to do the job, our attention moved toward a regulatory approach that focused on risk management, including a better understanding of a company's risk-management tools and identification of best practices in this area. The emphasis now is to try to identify appropriate risk-management tools as a way of mitigating risk associated with these products. Well, frankly, I don't think it's going to work. How many here have ever read the layman's book on chaos theory?

I'm sure a few have at least looked at it. The book is several years old now. If you recall in the first couple pages of the book, there is a discussion about the butterfly effect. Basically, it's a discussion as to why you can't forecast weather more than five days in advance and it goes something like this. You're going to have a butterfly in South America flapping its wings, which is going to affect the weather there. Eventually New York's weather is affected by a butterfly down in South America. I think the same thing applies here. Some action taken by some party,

somewhere, is going to affect someone else and affect someone else and eventually find its way up to the company level where you'll have a disaster on your hands.

Laura talked about the problems at the reinsurer with a write-down of some assets. That problem caused a problem with the financial status of the reinsurer, which in turn affected the financial status of General American. That is the butterfly effect.

Another reason why I don't think that risk-management tools will really get the job done is something I call "professional arrogance." I initially called the idea "actuarial arrogance," but in my effort to tone things down I'm calling it professional arrogance. Here's a perfect example of it.

If you take a look at your meeting agenda, there is a list of topics to be discussed. The first topic reads, "What happened at General American and why did regulators and rating agencies miss the problems?" My contention is we didn't miss the problems.

To understand my position, you need a little bit of a history on the regulatory interest in this issue and the positions that regulators took. You have to go back to about 1992, which is a good seven years before the General American situation. At the NAIC Life and Actuarial Task Force, we had a discussion about GIC contracts with downgrade provisions.

We didn't talk about contracts with put provisions, but the idea of optionality in the hands of the contract holder or some type of automatic provision was clearly part of our discussion. We took the position that on a public-policy basis insurance departments should not approve those products. That goes back to 1992 or so. Push forward to December 1998. We had the same discussion. We took basically the same position.

One of the members of the task force was asked to draft what was called a "fact sheet" and to distribute that fact sheet to other insurance departments to make them aware of the kinds of products being marketed today, the risk associated with those products, and the public-policy issues associated with those risks. I was the person who was asked to draft that letter and I did.

At the March 1999 meeting I circulated the fact sheet to the members of the task force for discussion and requested a go-ahead to release that to the other insurance departments that may not have been up to speed on this issue. Well, all I can say is that the industry and the actuarial profession went ballistic over that.

Every argument possible to try to convince regulators not to disseminate the fact sheet was raised, and for various reasons the fact sheet didn't get out until after I

went on vacation back in August 1999. To imply that regulators and rating agencies missed the problems is wrong. I don't think we did. I think it was a professional arrogance that prevented dealing with the problem in the way that I think we should have. You also have managerial pressure and competition. While there are a lot of positives about competition, there are also negatives. I won't dwell on that, but for all these reasons I don't think looking at risk-management practices is the end all and be all in trying to deal with liquidity risk.

Having said all that, I probably should spend a few moments to talk about why I think regulators should be interested in this issue. I view our role as protecting the little guy. Some of us are little guys here. We buy insurance from this company or that company, and we expect to be treated in the same way as other policyholders. I see contracts with 7-day put provisions, 30-day put provisions, and downgrade provisions as giving the big guy the advantage over the little guy.

Frankly, I just think that's wrong, so I think it's a public-policy issue. My efforts have been to eliminate the difference in treatment between the little guy and the big guy. We don't need to get into too much detail on that, but that's my feeling. I think that's the regulatory role in this situation—to look after the little guy.

I have dealt with several major insolvencies over the past 25 years. I know the problems the little guy has. Even though there is a state guaranty fund, people have to wait three, four, and five years to get their policy proceeds while the proceeds are accumulating at a very low rate of interest. On the other hand, a large institutional buyer with a seven-day put takes his or her money and goes somewhere else; I just don't think that's right.

Now, having identified the problem, determining that existing regulatory tools really don't address the situation, and concluding that risk management is not the answer, what is my answer to dealing with liquidity risks? Here is a brief outline of the things I'd like to see in a regulatory toolbox.

First, exposure limits. Exposure limits include all such products sold in the institutional market. The key word here is "all." Oftentimes when we deal with problems, it becomes a very piecemeal exercise where we look at one product. We develop standards for one product to the disregard of other similar products.

Second, a minimum standard for contract language requiring put-provision notification periods of no less than 60 days. Contracts with 7- or 30-day put provisions don't have a place in today's market from my perspective. Even though I've moderated my stance a bit from disapproval of everything, I am drawing a bright line and saying that you can't cross over it.

Third, required contract provisions. This issue really doesn't have, as far as I know, much to do with funding agreements and GICs. It comes out of the discussion we

had concerning products being sold in the corporate- owned life insurance/bank-owned life insurance market. I have not seen this firsthand. It was something that was relayed to me by a company actuary. He became aware of the situation when a company was issuing products with the right type of provisions to deal with liquidity concerns, but the company was waiving those contractual provisions in some type of noncontractual way.

That reminds me of the kinds of problems we had with reinsurance treaties in the past where a reinsurance treaty would contain some provisions, and there would be a side agreement eliminating those provisions or modifying those provisions.

I think every product, whether it's sold in the retail market or institutional market, should have an entire contract provision. I would also require immediate notification to the Department of Insurance of any attempt to put a contract by an insured or to exercise any right to accelerate benefits. The key is immediate notification. Based on my beliefs that we should be protecting the little guy in this situation, anytime a contract does have a put or downgrade provision, I think we should be notified immediately of any exercise of that provision. This will give the regulators time to assess the situation and, if need be, take the company over and put everyone on the same playing field.

There's no way on earth we're going to prevent insolvency. It's going to happen. It's the normal activity in any type of competitive free market. On the other hand, I do expect everyone to be treated in the same way.

The mom-and-pop and institutional policyholders should all be on the same playing field. I don't like someone coming away with 100 cents on the dollar today and someone else coming away with 95 cents on the dollar 5 years from now.

Another element of my regulatory framework is required periodic reporting of exposure and sources of liquidity. This is really at the heart of the work of the NAIC Liquidity Risk Working Group and the New York Insurance Department.

The development of some type of supplemental reporting that will provide information to regulators on liquidity exposure is the goal. I've expressed some concerns over the New York approach, at least the one that was implemented last year, in that there were certain companies exempted from providing information. I don't think anyone should be exempted from providing information.

In addition, I'm not sure all of the potential cash flows have been identified. For instance, I don't think the reporting dealt with health liabilities. We're talking now about GICs and funding agreements. If a company happens to also be a large writer of health business, it may have an awful lot of health liabilities on the books. Those cash outflows should be identified in any type of liquidity report. As I said

earlier, I think the report should be on a basis prior to utilization of any deferral rights.

Within the last couple of weeks I came across another situation, which I don't think any of us had really thought about. It's a real-life situation. I was reading a company's 10Q, and there was a discussion in there about the impact of the holding company's downgrade on the swap contracts the holding company had entered into. Basically, as the holding company was downgraded, the swap counter party had the right to either terminate the swap contract or to require additional collateral.

Well, in any event, for the contracts being terminated, there was a liquidity demand of $30-40 million and for the other situation for additional collateral. Additional collateral had to be posted, so in both cases there were additional calls on the company's assets to the detriment of the holding company. It wasn't at the insurance company level, but it could have been. We do have a domestic insurer that is a big user of swap contracts.

The whole point is that I think we need to go beyond the insurance contracts when identifying liquidity needs. We need to look at the whole program, including things such as swap contracts.

Next, part of my regulatory framework is the existence of adequate company-wide risk-management systems. Having said negative things about risk-management systems, why would I even ask for such an element of a regulatory framework? In the end, there's going to have to be some reflection of risk management. I can conceive over time some of the other elements of my regulatory framework being modified. The question here is, how will the appropriateness or adequacy of a risk-management system be determined?

Of the 51 insurance departments there are probably no more than a couple of people who have had any kind of experience in evaluating or understanding risk-management systems. I don't think it's something that can really be done effectively by insurance departments.

As an aside, and maybe people here aren't aware of this, the NAIC response to the adoption of the Gramm-Leach-Bliley Act (HR-10) was to initiate work in about 12 or 13 different areas. One of the topics under consideration is the granting of federal charters to insurance companies. This work comes under the aegis of the National Treatment of Companies Working Group. That working group is very early in its work, but it has identified various criteria that would be applicable to a company that has been given a federal charter.

At the NAIC level people are thinking about the question of who is going to evaluate the risk-management systems. It seems to me one way of doing that is to have

an NAIC team to review such a system. I don't say that flippantly because I know in general companies don't like when the NAIC gets any more control over regulatory matters.

But in this case I think the door has already been opened because the industry is asking for an NAIC team to review policy forms on a national basis. It only makes sense to link policy-form review, in this case, and review of risk-management systems.

Next, required notification to department of new product features and products aimed at institutional markets. This makes sense if we're going to put any type of trust or credibility on the information. We have to make sure that reporting is up-to-date and we are gathering information on relevant products. We need more information on new products before they're actually used in the marketplace.

That's my personal view of what I think should be in a regulatory framework. As I said before, there's an NAIC group called the NAIC Liquidity Risk Working Group, which is also looking at the same issue. I can't recall how many people are on the working group, but both New York and Illinois are very active participants. The working group is analyzing questions such as increasing the depth and frequency of regulatory information related to liquidity, which we've already talked about.

One of the issues here is, should it simply be quantitative information or should there be more interrogatory-based questions with the responses to the interrogatories being a way of screening companies for providing more information?

The other major topic is the identification of characteristics of a good risk-management system. Assuming that both of these projects will be completed some day, the question then becomes what will we do with the above? Should information on liquidity be the basis of an RBC charge? I don't think so.

I would agree with the Academy and industry that liquidity is not really an RBC issue. I'm not looking at RBC addressing the issue. Should information on liquidity be the basis of regulatory intervention? The answer to me is clearly, "Yes, it should be."

Should the existence and use of a good risk-management system be a necessary part of policy-form approval? I think it does play a role there. I think the existence of a quality risk-management system needs to be considered.

The problem as I see it is that if regulators start taking that into account, the industry is going to respond by saying, "We have a nonlevel playing field." One regulator in this state thinks this system is OK, so their domestic company can write this business. A regulator in another state feels differently and they can't write the business. Once we start bringing these kinds of judgments into a

regulatory process, we're going to hear more and more about the nonlevel playing field. And lastly, should we simply defer to the rating agencies and marketplace to answer these questions?

Mr. Zahid Hussain: As Vic mentioned initially, I work at Aegon's Institutional Market. I'm going to show you my personal view of what the institutional market is about and why I continue to view it as somewhat attractive despite what both Laura and Larry pointed out as some significant problems in this market. I don't disagree with most of the things that they said, but I think there's some additional information that I wanted to go over with you.

First, I want to talk about institutional business. In this business we sell very large investment contracts, probably $5-50 million. In fact, a $100 million contract is not all that uncommon.

The customers that we sell to are pretty sophisticated. They know exactly what they're buying. They are generally investment managers in their own right. They've done significant due diligence on the company that they're doing business with. They know exactly what the terms of the contracts are. It is a pretty competitive, sophisticated marketplace. As Laura mentioned, the computer systems have been developed to a point that everybody knows exactly what options are on each contract. At any point in time most of our customers know what's on first and who's on second. I am saying that relationships are important in the process of selling contracts in this marketplace.

Since a lot of this business involves repeat business, people don't want to do business with people who they don't feel comfortable with; who they don't think can get the contract done. Despite relationships being important in the sales process, nobody should kid himself or herself about what the fiduciary responsibility of our customers is. If our credit or pricing disappears, all the business could dry up very quickly.

One of the things about this market that I think is somewhat different from other markets in the insurance industry is the expectations of our customers are somewhat reasonable. They can put themselves in our place pretty effectively. They generally have a good idea before they ask for something as to whether or not we can deliver it to them.

I'm going to talk a little bit about the critical core competencies that you need to be successful in this business. When I say "core competencies and being successful in this business," I don't mean that you can't write a lot of business without these competencies, but to be a successful long-term player you need to have at least these three things. General American obviously was able to write a lot of business quickly, but it was not necessarily the cheapest, the stickiest, or the best business they could have possibly written.

The most important thing to be successful in this business is a very strong independent risk-management process. Another very important thing is a sophisticated sales staff. I think it's very important that your sales staff be risk managers who know and understand what can and cannot be sold.

The negotiating of contract is a fairly long and complex process sometimes. Having an experienced salesperson who knows when to say "no" without killing the deal is actually very important. They're the people who can get you the best transactions if the people on the front line actually know what's going on.

I think it's important to have a dedicated and specialized staff. People have referred to this business as being opportunistic. I don't think that's a fair characterization of the business. You really need to know what it is that you're doing. You need to be a long-term player. You need to understand what the customers want, what they expect, and what they'd like you to do when things go wrong. You can't be in and out of the business. I think you have to have a consistent presence in the business. You need to be active in segments of the market at all times. You need to have a staff that is used to dealing with this market and has very close relationships with the customers.

I think risk-management needs to be independent of the sale process. It needs to be integrated. It needs to involve people from the product line, which is the business. It also needs to have an equal partnership with the investment area. You also need a corporate actuary. I think risk management should be headed by three disciplines at least. You also want to make sure that each of these three disciplines is represented somewhat equally in the process. No one person speaks louder than the other person.

Three people should have roughly the same level of responsibility. You also want to make sure that this risk-management group, in addition to reporting to the business head, also reports directly to risk-management committees. You want to make sure that the reporting relationships are set up right so the risk-management groups report outside the business group for some things.

What should the risk-management teams be charged with? I think these are probably the four most important things. You need to make sure your assets and your liabilities are well-diversified. Asset diversification gets a lot of attention. Liability diversification so far has not gotten enough attention.

Interest-rate risk management is also an important component of risk management for insurance companies. I think this subject has been discussed a lot for the past ten years or so. By now most insurance companies are pretty good at managing their interest-rate profile. Liquidity management is very critical to be an institutional business. It's probably more important in institutional business than it is in any other business. Institutional business doesn't necessarily mean funding

agreements but some other institutional businesses like reinsurance. I think liquidity management processes are basically the same.

Also, a function of risk management ought to be to identify economic risk in a particular transaction and not necessarily rely upon capital formulas set by RBC ratios or by rating agency capital evaluation models.

Liability diversification, as I mentioned, is very important. I think it is important that you make a conscientious effort to diversity your liabilities. Within the funding agreement business, for example, you can write liabilities to stable-value funds. You can write liabilities to define benefit funds. You can write liabilities to Euro-note, cash, and municipal reinvestment markets.

It is important that you have different sources of funds available so that at any point you're not relying on a single customer or a single type of product. You also need to diversify your liabilities by maturity. You can't have a huge ton of money maturing at the same time. Diversify market segment, customers, and cash-flow risks. All of these diversifications help with managing the liquidity risk in case things go wrong.

This is the meat of the presentation. I'm going to talk a little bit about the type of products that are in the marketplace and the liquidity issues from my point of view.

These are the six main products that people think of when they think of the institutional GIC marketplace. The first type of product is essentially the pension GIC. This is probably a product that is most common and familiar to most people. They sell pension GICs to stable-value plans, mostly to defined contribution pension plans. Ticket sizes are probably $5-10 million; maturities are three to five years.

Generally there is no unilateral right for the employer to terminate a GIC. Most of the time the money stays locked in for three to five years. Some companies do offer contracts where monies can be withdrawn before maturity. Usually when companies offer contracts with early termination, there is significant penalty to fair-market value. It generally happens with a delay of 120 days or so.

I don't think the pension GIC poses a significant liquidity problem, especially if it's done right and there are no early termination provisions available.

Defined benefit (DB) investment contracts are another product that is associated with this market. Most of the time this product is sold to the DB plans as an investment that they hold. The performance of the investment, or the performance of the contract, is linked to an outside index, and it generally tracks some equity or London Interbank-offered rate-based index.

Again, in this product the money is deposited for a term of three to five years, and contract holders cannot surrender a policy before the term expires.

Funding agreements for capital market programs. This has been a very popular product lately. A lot of companies have been doing it. I think sales for last year were $16 billion or so. Basically what you do is you sell an investment contract issued by a life insurance company into a trust or a special purpose vehicle (SPV) and that SPV goes out and issues bonds into the debt market. Again, the money is pretty much locked in for five to ten years.

The problem with this market, as Laura pointed out, is that ticket sizes can be extraordinarily large. You need to manage the maturity ladder so that you know that you don't have a huge amount of money maturing on a given day. But once the money comes in, it generally stays locked in to the maturity period. You do need to manage the maturity ladder.

Synthetic GIC is the next product. It's mostly an off-balance-sheet product. It doesn't have any significant liquidity issues. It does have other risks.

Municipal GICs is another product. It's perhaps the most complicated product. A municipal entity would issue a bond and the proceeds from the revenue bond fund would get deposited into a GIC. They will draw down the GIC as needed; for example, fund a construction project or to construct a highway, stadium, or whatever.

The maturities of these contracts are pretty short; they're generally less than three years. They also have no early surrender rights. The contract holder cannot surrender a policy before maturity. However, these contracts have what is referred to as a downgrade provision. If the insurance company were to get downgraded below a certain trigger, the contract holders have the right to ask the insurance company to make them whole so that bond issue will not get downgraded as a result of an insurance company downgrade. At that point, it is at the insurance company's option to decide what to do. The customer cannot demand cash.

The insurance company has the right to decide whether to collateralize their obligation by posting bonds in a trust account or to assign the contract to a third party. They can get a surety provider or they can agree to pay out in cash. I think municipal GICs do pose a liquidity issue for most companies that are writing them.

People who write this business should be very careful about how they manage downgrade exposure if it were to come about. If you're expecting to collateralize your liabilities, you better have a good plan on hand to make sure that you know exactly what happens when a downgrade does happen.

The final product is floating-funding agreements. This is the product that got General American into trouble. I'm going to talk about it in a little bit more detail. As both Laura and Larry mentioned there has been a lot of concern about short unconditional puts. These floating-funding agreements are generally sold to cash funds.

Cash funds can take many forms. They can be short-term investment funds; they can be security-lending funds. There are many different types of cash funds, but there's one particular type of cash fund, which is a 2a-7 public money-market fund. There are pretty strict SEC requirements for these funds.

One of the requirements is that at least 90% of the investments by a 2a-7 fund be in liquid investments. The SEC defines liquid investments as something that can be converted into cash in a period of seven days or less. They do have a 10% illiquid basket. But the majority of the funding agreements that were sold by General American were sold into the liquid basket of the 2a-7 funds. To satisfy the SEC rules on liquidity, they had a seven-day put that meant that the 2a-7 funds could get their money back in seven days.

General American had felt that they would not exercise the seven-day put because it was granted more as a technical provision as opposed to an outright option. Obviously, that feeling was wrong. A seven-day put is a significant option. They've been sold to a very credit-sensitive buyer. It is important to know that not all funding agreements that are sold to cash funds have a seven-day put.

It is possible to sell contracts as long as a 12-month put if you were to sell into the illiquid basket. That's where the salespeople get very important. You need to have the right kinds of salespeople because selling into an illiquid basket of a 2a-7 fund is considerably harder than selling into the liquid basket with a seven-day put.

The 12-month put business is effectively all that Aegon does. We actually like the business. It's a perpetual contract. The contract holder can't get out of the contract unless they give a 12-month notice. Part of risk management is case-specific underwriting. Each ticket, as I mentioned before, is pretty large and a lot of risk management needs to happen at the individual sale each time you make the sale.

You need to have a substantial underwriting and review process. The underwriting is probably best handled by an independent party outside of the sales group. You also need to have very clear lines on quality based on ticket size. You need to be able to know what person can sign based upon the ticket size. You also need to have very good operational controls. You can't really afford to make any sloppy mistakes on the cash-processing side.

Finally, I'll talk a little more about how I look at liquidity management. The liquidity needs of each product should be supported by its own A/L strategy. Essentially each product as you design it should have its liquidity needs identified and be explicitly modeled against the type of assets that you are expecting to hold for it. Liquidity position should be measured and reported to senior management on a periodic basis. When you talk about liquidity position being measured and monitored, you need to talk about all kinds of liquidity provisions. For example, we do things such as what happens if you have a three-notch downgrade? What happens if every contract with any sort of a withdrawal provision, no matter how puny the withdrawal provision might be, gets exercised?

The numbers don't look pretty—not just for institutional business but for all kinds of other business. But you need to measure liquidity draws, even in the worst circumstances, and know what your risk exposure is and then understand what you need to do if the worst were to come about.

Liquidity management is an entirely different discipline from interest-rate management. It is not the same as interest-rate risk. I agree with Larry; it's not covered by C-3 RBC charge, which is for interest-rate risk.

I don't think businesses, especially the institutional business, should rely upon assets from other lines of business for surplus assets. I think each product needs to have its own asset support whatever its liability requirements might be.

I think it's OK in certain instances for institutional lines to rely upon assets from other lines, but you should not be able to do that unless there is an explicit understanding between the two lines of business. Line A is going to rely upon line B in case there is a huge liquidity draw. You can't afford to have any mistakes or miscommunication.

Back-up liquidity lines. Both Larry and Laura mentioned that. I think they're very important. To be a big player in the institutional business, even in the insurance business, you need to have formal and committed lines of liquidity. These lines of liquidity provide a great deal of flexibility in a fire-sale scenario. You can access banks for liquidity when you need it most, but one of the things that insurance companies need to be cautious of is that you cannot rely upon these back-up lines for solvency purposes.

There's a difference between relying on back-up lines for flexibility versus relying upon them for solvency. It is our belief that in the A/L process, the liquidity needs of the product should be matched with the assets underlying the investment portfolio. Back-up lines of liquidity provide a great deal of flexibility, but you can't rely on these back-up lines for the solvency of the company.

A part of the problem is that banks don't expect to make loans under those liquidity lines. What do you do if you get into an argument and the payment is delayed by seven days or something? You may be right, but the company would still be insolvent.

As a result of General American, and actually preceding General American, the institutional business has been getting a lot of regulatory and rating agency oversight. I think generally it's not bad. I think it's a positive. It gives us an outside perspective on how other people see our processes. It also sets up a feedback loop and it prevents the worst abuses that go on the marketplace.

General American tainted the industry with a black brush. I think whatever we can do to prevent another insolvency like that is good. We need to think about what is the best way to regulate the business.

I think it is important that insurance companies continue to be able to design new products and to come up with new and innovative solutions to whatever problems are posed to them by their customers.

It is also important that insurance companies be able to do that in a reasonably quick time frame. You need to be able to respond to a customer within a period of two or three months. I think within those constraints, regulatory and rating agency oversight is very important. One of the things that you absolutely need to do is to have a better dialogue with the regulators about what processes you're following and how you expect to deal with contract contingencies if they were to come about.

In summary, I think institutional business can provide a profitable line of business. Aegon has been in it for 17 years. We've been doing it consistently through many business cycles. We have a staff who has been doing it for five to ten years. They know exactly who the customers are. As important as the institutional business is for our company, it does not define our company. It's only about 5% of our worldwide profit.

From the Floor: I have a question for Zahid. You were talking about how liquidity needs of each product should be supported by the A/L strategy, but then you also said that liquidity is completely different from interest-rate risk. I think that's not entirely consistent. I agree that liquidity is not exactly the same thing as A/L management, but a large part of liquidity is A/L management.

Mr. Hussain: I think I misspoke. What I mean is that liquidity risk is not interest-rate risk, but it is tied to A/L risks. Liquidity is different from interest-rate risk.

From the Floor: But not entirely different.

Mr. Hussain: I think it's somewhat different.

From the Floor: Because it's management of cash flows basically.

Mr. Hussain: Right. But interest rate can be hedged by using swaps. For example, you can change the interest characteristics of your liability flows by doing different swaps. You can change the interest-rate characteristics, but you can't change the liquidity characteristics of your assets and liabilities.

From the Floor: I don't know that I entirely agree with you there either. I do agree that they're not exactly the same.

Mr. Gorski: I think the question and the discussion concerning your question illustrates a very important point when regulators and industry get together to discuss these issues. Oftentimes there is a language barrier; a lack of complete understanding of what one side is saying versus what the other side is saying. The very item that you were discussing has come up in many different times in our own conversations.

I think what we're trying to do now is to take the idea of liquidity risk and look at it at from two different levels. When I say "we," I mean the regulators and the AAA. One is a more day-to-day cash-management issue, which is clearly part of interest-rate risk considerations, while the other is a catastrophic run-on-the-bank situation, which probably falls outside of interest-rate risk. We're trying to bridge that language barrier also.

Mr. Frank J. Longo: Most of the discussion has been about General American, but I'm more interested in knowing what the panelists think about what happened at ARM. Why was the reinsurance company's rating as high as it was when evidently there had to be some sort of mismatch occurring there? I don't know exactly what kind it was, but something went wrong there. It seems to me it's partly a due diligence issue on behalf of the direct-writing company, but at the same time, it still is a ratings issue with regard to the reinsurer. Could you please comment on that?

Ms. Bazer: We had Integrity-rated Baa1 for insurance financial strength. I think a preferred stock rating of the holding company was noninvestment grade. Those are not strong ratings. That was before the crisis. I think part of the problem was in reporting. I was the analyst for both companies. It took me a couple of years of digging to understand what exactly was going on. I think that was the case for most of the industry. I rated the company in 1996. It wasn't clear until 1997 that the company was busily doing this. The extent to which it was involved with General American was not clear until later.

Mr. Frank J. Robertson: I have a question for Larry. In the institutional market when you're looking at policy forms, if you have an institutional buyer that wants

some kind of specialized investment strategy, and this is handled by perhaps putting assets in a separate account, what would be your view about a policy provision that said for liquidity purposes that there would be payment of actual ownership shares of the assets in lieu of cash, i.e., an in-kind payment?

Mr. Gorski: I guess I probably have a dim view of that type of provision, because I have to believe the kind of assets that would be transferred to the institutional buyer would be high-quality, short-dated assets with a very close relationship between fair value and statement value. I'd probably look at it as pretty close to transferring cash. I don't see much difference. I don't think I would react any differently in that situation than to other types of ways of accommodating institutional buyers.

Mr. Richard B. Pitbladdo: Zahid, you suggested that businesses should not rely on other lines of business for liquidity support unless specifically agreed to by the parties. I happen to be involved in a line of business that can be a net provider of liquidity. I'm wondering if you have experience in overseeing or being part of any specific agreements between lines of business where one line of business is providing liquidity to the other to relax the liquidity constraints on the one business.

Mr. Hussain: We don't have that. I don't really have any specific agreement. I think that was my point: if you were to rely on other lines of business that there would be a dialog between those two lines of business so that each party agrees exactly with what you are relying upon because the second line may have their own liquidity issues. Line A can't assume that line B will be able to lend its liquidity. I'm not very familiar with going through an experience where two lines got together and explicitly decided that one line is going to rely upon the other. I just haven't seen that.

Ms. Donna R. Claire: Zahid, in terms of liquidity and relying on other lines of business, what would your opinion be of an agreement of "we're in trouble, we will overcollateralize?" How is that not relying on the other lines of business?

Mr. Hussain: I guess when I think of a line of business, I'm thinking of a business like institutional business. In that case, let's say, for example, we downgraded and we have to collateralize a municipal block, we would be collateralizing by assets within the institutional block.

Some of those assets might, for example, come from the funding agreement that is sold to international investors, but it could be from a business or a line of business and you would not be drawing on assets outside that management group. Does that answer your question?

Mr. Darryl D. Button: It appears to me that liquidity is a risk just as mortality, morbidity, and financial companies disinter mediation risk. The AAA Task Force is

looking at liquidity. The approach that we're taking is looking at risk-management systems and adequate risk management. I guess I'm a little disappointed in hearing your comments, Larry, about risk management not cutting it. We're possibly going in a different direction.

I do have a specific question for you, Larry. In your definition of liquidity I'm having a little bit of difficulty understanding that last part where you talk about without experiencing financial statement losses. I'm just asking for you to expand on that a little bit.

Is that to indicate that at no point am I ever to rely on selling a bond where I might experience a loss? It seems to me that would indicate that I should be holding a portfolio of Treasuries or something like that, which doesn't seem very appropriate either.

Mr. Gorski: No, I wasn't trying to imply that at all. What I was just trying to do was to give a measurement to the losses. I was simply saying that the losses I'm referring to in my definition of liquidity risk are differences between statement value and fair value. I was not trying to say that under no circumstances should you experience those losses. I was just giving a metric or measurement to the loss.