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Session 25I
Investment under the Risk-Based Capital (RBC) and Rating Agencies Requirements

Track: Investment
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Panelist: JAMES F. REISKYTL
Recorder: MICHAEL J. COWELL

Summary: Insurance companies' investment decisions are influenced by RBC and rating agencies requirements. An interview session will be conducted to help provide answers to the following questions:

- *How to evaluate needs?*
- *How to evaluate whether the expected net return will outweigh the RBC/rating agency penalty of added surplus requirement from a return-on-investment perspective?*
- *What if volatility in returns is factored in?*
- *Should assets with high RBC requirements be used to back product portfolios, required surplus portfolios, or free surplus portfolios?*
- *What are the limits on amounts of various assets?*

Mr. Michael J. Cowell: I'm with UNUM in Portland, Maine. I've been involved in risk-based capital from the beginning as far as the NAIC is concerned. I was involved with the Industry Advisory Committee on Risk-Based Capital that came up with the NAIC's current formula, and I spend probably more time on this subject at UNUM than I do on anything else. In the audience is my helper, Jim Reiskytl, from Northwestern Mutual. Jim has also worked on this same industry advisory group. We've been working on this and its related derivative activities approximately six years now. Jim has a great deal of experience in this area. He has also spent a large amount of time on the Asset Valuation Reserve (AVR) Task Force and is involved in many other NAIC, ACLI, and SOA activities involving investments and risk capital.

This is the audience's program. I'm just going to ask questions and get responses. I'm not going to go through the program item by item. These questions are supposed to get to the issue of how risk-based capital is changing companies' investment strategies.

We spent quite a fair amount of time at UNUM on how to evaluate what we call indifference spreads that tell you more or less what you need to know. If you're invested in risk-free Treasuries, and you want to make a move to some other kind of investment, how much do you have to earn over and above what you're yielding on Treasuries?

The critical factor that drives this formula is the rate of change of the risk-based capital relative to the C-1 factor, which you can calculate very simply. How many in the audience have worked with the NAIC risk-based capital formula and understand it? (About two-thirds to three-fourths indicated yes.) So you understand what the C-1 component is and what the total risk-based capital is. It's just a matter of taking your current calculation and adding $1 million to C-1 and seeing how much it increases your RBC. Depending upon the relationship of C-1 plus C-3 to C-2, this result can vary a great deal. That's a critical component. The other factor is your target ratio. What is your company trying to hold its RBC level at?

As an example, you'd need two basis points if you were going to move from risk-free Treasuries into the NAIC's category risk, which has an RBC C-1 factor of 0.3%. You'd need six basis points for the NAIC risk 2 and so forth across the various categories of investments. The only change is to common stock investments where I have a federal income tax rate of 35% across all the other investments. I assumed a slightly lower rate because more of the common stock earnings are achieved by capital gains rather than ordinary income, and that has a slightly lower marginal federal income tax rate. This gives you a fairly good idea that you need anything from 2 basis points for the least risky, to 157 basis points under this particular scenario for the most risky departure from a "risk-free" investment. Then, if you change things like your target risk-based capital ratio to 200% instead of 175%, all of those numbers increase. If you want a return on capital (ROC) goal of 18% instead of 15%, then the numbers also increase; it's a fairly simple algorithm.

Let's get some comments from the floor as to what you do on either of the first two items—evaluating net returns or determining whether or not your net return will outweigh the cost of the added capital requirement. This is of course on the NAIC RBC basis, but the same concept can be applied if you're using Moody's or Standard & Poor's (S&P) formula. As you know, they have sometimes used the same approaches as the NAIC, and sometimes they use slightly different factors in their risk-based capital calculations, but the concept is similar.

Mr. David C. Florian: When you increase the amount of C-1 that's necessary, are you calculating the C-1 on the C-1?

Mr. Cowell: The C-1 on the C-1?

Mr. Florian: In other words, if I need to put up say, an extra $10,000 in C-1, are you then calculating the C-1 for that extra $10,000?

Mr. Cowell: Yes, but the impact of it at the margin is quite small. If we would be looking at a very substantial departure, shifting our current structure, we would be concerned with the capital requirement for assets to support capital itself. What you're asking is about a second order difference.

Mr. Florian: Right. I noticed that we've done this exact same project. As we moved up in NAIC-risk 4, it did become at least material to us in the investments that we could get. In other words, if we wanted 25 basis points because you calculated it, you may not want to move to NAIC-risk 3 or NAIC-risk 4 because of the C-1 on C-1. I just began to wonder if it made sense to take that into consideration.

Mr. Cowell: I think it would depend on whether or not you were making a decision about whether to go into that kind of investment, or whether you were simply trying to optimize your investment return. If your sole objective was to optimize your investment return, then you probably would take it into consideration. If you were just using this to make a basic strategic decision as to whether to go into mortgages or common stock, I think ignoring the second-order difference would be satisfactory, unless you were going to make a major shift in investment strategy. It's a very good question. It gets fairly complex; you get an auto-regressive formula, and I have not tried to build anything that complex yet. What are other companies doing?

Mr. James F. Reiskytl: I'll comment on one of the questions just asked. Clearly you're going to get different answers depending on whether you assume that the additional surplus you hold is going to be in a Category 4 or not. I don't know if your question implied that you had extra surplus, because you assumed that the surplus would also be in Category 4. Clearly that wouldn't have to be the case. I agree wholeheartedly with Mike. You have to take into account the asset default risk along with any other risk that exists when you have an asset. You'll get a different answer if you invest in a Treasury or whatever it is that you're investing in. If you methodically go through the formula, you may end up with a much higher factor than what you would get in reality, depending on what your philosophy was.

The answer might be right if you, in fact, intend to hold that surplus in that particular risk level here; it may be wrong if you're not; that's fairly obvious.

I wonder how many people here view the surplus requirement as a penalty. Speaking for myself and Northwestern Mutual, we look at this as being a reasonable way of looking at what the risk is. The fact is, the RBC factors are probably imperfect; we'd admit that. But I think they're a very good estimate, and they're probably somewhere in the ballpark. There may be occasional asset classes that aren't quite precise. One may get into some detail about that, but I don't view it as a penalty; I view it as just good sound management that enables you to make decisions. How many people here view it as a penalty, and how many view it as just good sound investment philosophy?

Mr. Cowell: I think that's a very good area that Jim's touching on. Could I see another show of hands before we get specific answers to Jim's question? How many of your companies have made a major change in your investment strategy over the last two or three years, as a result of the NAIC's, Moody's, and Standard & Poor's formulas? By the way, I think Moody's and Standard & Poor's are now following the NAIC lead. So I think it's sort of one question. How many have made some significant changes in their investment strategy as a result? (A few hands raised.) It looks like it has had a relatively minor impact, Jim.

Mr. Reiskytl: There were only a few hands, but if you look at the overall results, one would assume either this group is not representative of the industry, or there are other areas in which they have made significant changes. I think the latest Townssend and Schupp study clearly has shown that risk-based capital has produced stronger results for the industry over time. Something is occurring. Let's go back to that first question. Very few people were influenced in their investment structure and their investment philosophy by risk-based capital, so that may also make it clear that they, in fact, have been recognizing something like this in their decisions already. The risk-based capital just gave it a formality.

We've done an analysis that is similar to yours. I would introduce a couple of other comments. I think you can get very wound up in the mathematics and actuaries love to do that. Then we use a term that we call the optimal view. You might conclude, for example, that junk or big bonds are the way to go, but you may not wish to do this for other reasons. This analysis by itself is useful, but it may not be a determinant of your investment philosophy, and you may get into that aspect of it.

Mr. David Levene: I'm with Metropolitan Life Insurance Company. I would be interested in knowing how the investment departments of many of these companies view NAIC risk-based capital. At Met Life I see a questioning of a number of the

RBC factors, and whether or not we, as a company, should work our investments around NAIC RBC requirements. Should we be looking at changes in economic value or total return and perhaps not be quite so concerned over RBC factors? I think the common stock factor is one concern for our company. We think that if a company is operating close to the RBC threshold level, that's one thing. But, if a company is way over the threshold and has the ability to take a long view, perhaps the factor might be a little too heavy. I think the investment department has its own views aside from what the NAIC might have. I'd be curious to know how and what other companies do in their investment departments.

Mr. Steven P. Miller: I work in the investment department at Mutual of Omaha. Whenever we talk about RBC or whenever my boss talks about RBC, he talks about "what those actuaries did to him." That might help in answering your question.

Do I think there's a penalty? There are some things in there that are very good. If anybody works in a derivative house, they love this stuff because they can find two things that are totally economically equal with totally different RBC requirements. For example, what if I hold a stock? Let's say I hold a Standard & Poor's 500 index fund, and I go into an over-the-counter call option or a put option on the S&P 500. In five years I have a 30% RBC factor multiplied by all those numbers, so I'm probably going to have RBC equal to 50% or so of my surplus. If I do the same thing in an equity-linked note, with exactly the same economics, I have a AAA bond. That is one of the major things that I think the investment department gets frustrated with in our company. However, I tend to agree, in most cases, that the relationships between a C-1, C-2, and C-3 bond are probably very good indications of the relationship with risk.

Mr. Cowell: I sense that investment departments look at these capital requirements as penalties rather than opportunities. I think it depends on where they're coming from. Certainly when we, on the Industry Advisory Committee, developed the numbers, we knew in advance that there was no one set of numbers that was going to be perfect. We were not trying to come up with the kind of precision that I think has been imputed to the process in the last three years. Our charge from Terry Lennon of the New York Department, who led the NAIC effort on the life and health side, almost became a mantra. The whole purpose of the process was to distinguish well-capitalized from poorly capitalized companies. But what has happened now is that people get very paranoid over minuscule differences in their NAIC ratios and particularly their S&P ratio or what they think their Best's ratio is. Since the C-1 risk ratio, for many companies, drives the process, these factors for the various investment classes are quite critical. One of the problems is that the whole process of insurance accounting and investment accounting for insurance, and this gets into the AVR and IMR as well, is in such need of an overhaul. Given what we

had to do, we had very limited tools with which to work. The kind of situation that Steve describes is going to continue. There is a great deal of work going on; we had many discussions at our last task force meeting, for example, on mortgages. This formula is not likely to stay static, but then again it's not likely to get a major overhaul unless it does a poor job of really distinguishing well-capitalized companies from poorly capitalized ones.

Ms. Charlene Marie Barnes: I work for UBS, a derivative house. I can tell you that it is very true that investment departments look at our RBC as an obstacle to overcome. I think the real problem here is the way it's centered so favorably on fixed-income instruments. To the extent that you can match perfectly, I believe and a lot of academic theory supports that a perfect fix is what you want and that takes care of all risk, and, therefore, you should be satisfied with a Treasury return. If you can't get that perfect match, simple portfolio diversification says you should be investing in other things. I think stocks are clearly a good thing to invest in because they have capital risk. The difference between loss of principal and loss of income is a book-value risk. It's not a real risk, instead the loss of economic value is the real risk. The entire thing centers too much on the fixed income, and there's too much of a penalty, and there are too many ways to get around it.

Mr. Cowell: Charlene, to what extent do you think that this is driven by the statutory accounting "going out of business" balance sheet focus on the concern? If you have a 20% or 30% decline in common stock on December 31, you're going to have perhaps an instantaneous shrinking or volatility of return. How do you address that?

Ms. Barnes: Obviously it very much is driven by that and that is a real concern. I also don't believe that, if you have an immediate drop in stock prices, that it's okay. You cannot hide it through fixed value either, and I do think there's a very real loss-of-capital problem. I think that if RBC were looked at in the correct way, then it could solve many problems. I mean 30% is a lot to hold, but in the big scheme of things, because you're talking about extra return and diversification, it's not that bad. You should have capital. There is such a thing as too little capital because you are in too much danger of losing the value of your salesforce that you'll never get back. There is such a thing, however, as too much capital because you just invested in capital markets and are being taxed on them. What's the point? I think that the direction they're going in and what they're trying to accomplish makes sense. A loss of market value is a real economic loss, even if you make it up later, but the focus needs to be more on the entire picture. I realize that it is a very difficult thing that cannot be done in a formula.

Mr. Cowell: Yes, it is difficult to do in a formula. Again, the formulas that we're working with were developed in the light of two recent, major failures in the United States, we've had another one in Canada. I think the regulators were very concerned that there not be another Mutual Benefit or another Executive Life. I think the feeling is that we probably have got a formula that prevents the last round of problems. But where do we go from here?

Mr. Anthony J. Zeppetella: I'm with Phoenix Home Life. I also was involved in the formula development somewhat, and for the past four years, I've been in an area called "corporate portfolio management" at Phoenix Home Life. We set our guideline investment limits and our allocations between asset classes. In that entire time, I don't remember a single decision that was affected by risk-based capital. That's because we feel comfortable with the level we're at just as was mentioned before. If we're in a comfortable zone, we're not making individual investment decisions based upon risk-based capital. Also, it's not just that we're in a comfortable level, but we also have other considerations that we take into account in making investment decisions. Equities are particularly volatile. Desire for stable return, stable growth, and surplus, make it very difficult in planning if you don't know whether your stock portfolio is going to be up $50 million or down $50 million in the next year or even the next month.

The same concept applies to below-investment-grade bonds. We have a limit which is the percentage of surplus, and we stick to that limit. I think, to a large extent, this has been what many companies have done before risk-based capital formulas were developed. If you look at the history of life insurance asset allocation, you'll see that equities have always been, on average, 2%, 3% or 4% of the invested assets with just a few notable exceptions, like companies with high surplus levels. Of course, there have been problems when some companies got overexposed in certain asset classes. I think that's the value of the risk-based capital formula; when the exposure becomes inordinate in certain asset classes, and the formula shows something. The surplus levels are not enough to support it.

Mr. Cowell: Tony, as you said, for most companies there are other investments, besides common stocks, that seem to concern many people. For most companies, common stocks represent 2%, 3% or 4% of investments. But what happens if their overall statutory surplus is only 5% or 6%, so that for those common stocks, the market value represents say 50%, 60%, or 70% of their total surplus? The second question, relative to your point, is What tools do you use? What analysis do you use to balance the long-term greater return you can get from equities against their volatility?

Mr. Zeppetella: I think when it is something as volatile as stock or below-investment-grade bonds (NAIC-risk 4 or risk 5), it is a matter of how much surplus you want to expose to risk. You can get very fancy and complicated models. You do have to have some idea of the correlation between events, like when the stock market falls versus delinquencies or defaults on below-investment-grade bonds, and delinquencies on mortgages, and so on. There is some reliance on modelling these factors, but the basic question is how much surplus do you want to expose to risk?

Mr. Cowell: Does it become essentially a management judgment rather than a mathematical algorithm?

Mr. Zeppetella: I think that's the way to look at it. There are those who say, "Why not be like a pension fund that typically has 50% or 60% in equities." But even the most ardent supporters of equities are not proposing that for life insurance companies. Instead, they propose 25% of assets or something like that. But, if your capital ratio is 5% and the market falls by 20%, there goes your capital margin. It's not a comfortable position to be in as you're waiting to see whether you're going to be solvent at the end of the year or not. And of course, some say, "It's just an accounting problem," but I don't view it that way.

Mr. Cowell: I've heard it said that if we had rigidly applied our current statutory accounting during the 1930s, many companies would have been bankrupt. Many were, but did not know it.

Mr. Zeppetella: Yes, some would have been bankrupt even with GAAP accounting under *FAS 115*. Mike, early on, I computed numbers like extra spread required, and I never used them. Do you use them?

Mr. Cowell: Yes, we use them. But again, as I distinguished earlier in discussing David's question, between trying to optimize at the margin as contrasted with are we going into that investment in a major way? I'd say there are good indicators for the latter. If you're going to use them to try to get the absolute optimum return, then I think you need a more complex process to respond to David's question. You have to anticipate how much additional surplus you need on the surplus. You either come up with a very complex order of recursive formula, or you simply model your whole balance sheet out under the new scenario.

Mr. Armand M. de Palo: I'm the chief actuary at Guardian Life. Guardian is one of the companies that considers common stock a very important part of the overall investment philosophy of a company. In fact, we probably have proportionately more common stock than most companies. The flaw with where the regulators are going on the investment laws and on risk-based capital is that they do not

distinguish between free surplus as an investable asset independent of the rest of the portfolio versus what is needed for liabilities.

As an example, we had to invest a tremendous amount of effort to get the model investment law that's in front of the NAIC changed from a 10% limit on common stock up to a 20% limit. We had very few supporters, because they didn't think of it as an issue—even though, at the same time, property and casualty companies can invest 25%. The current New York state limit is basically 20% plus a 5% basket. So a company could go up to 25% under New York State law. And New York was, in fact, one of the drivers behind the new investment law. It was moving along because no one was opposing 10%. The regulators just don't understand equities; they think book-value liabilities give a greater protection.

If you studied the risk profile of a bond at market and common stock at market, you'd see that they aren't all that different. The ability for a bond to depreciate during interest rate spikes isn't that dissimilar to the loss and value from a discounting stream of common stock. The only difference is how you choose to account for it in an annual statement. When you also consider that common stock is building up an AVR provision, in many respects, the common stock has a much of the market value appreciation put aside in the AVR, so the regulators' fear is real. They truly fear common stock, and when we try to sell them on the idea, at least for the investment law (we never tried to do it on risk-based capital because we always had such high ratios), it didn't really seem to be a constraint to us.

They wouldn't buy into the idea of having a separate segment for the assets backing your liabilities versus a segment for free surplus or investable surplus. That's free money to do with as you see fit. If you're like the Guardian, you would take the common stock portfolio and say, "Let's pull it out of surplus; let's pull it out of the company's books." We throw away this amount of surplus, take the common stock with it, and then calculate RBC without that asset. There's no liability, there's just surplus in this segment. We'll have a higher RBC ratio in many cases than if we bring it back in. That is where the flaw is, and I tried to get some input, at least on the investment law, but they didn't want to deal with the question of allowing companies with high surplus having an investment advantage against other companies. It was the best I could see from the logic. It just became too complicated. You should be able to invest that way because you have more surplus. They did not want to get into that discussion. But in the last 20 years, Guardian has added real return to our policyholders as a result of having maintained 10–15% of our assets in common stock.

Mr. Cowell: This is a very good point, Armand. I don't know what the short-term solution is. I alluded to changes in the entire insurance accounting and statutory

regulatory process. I'm not sure that there is a solution within the existing regulatory and statutory accounting framework. I think it would require some major new "outside-the-dots" thinking along the lines that you've discussed. What can the actuarial profession do here? Is there a role for us to take in this arena?

Mr. de Palo: I think if you study it from the point of distinguishing between the liabilities and the assets that back liabilities, and partitioned off what is "planning surplus," or "entity surplus" of the organization for its future health, and allow them to be invested differently, you would be able to address it. I believe the obstacle to that is that it is viewed as the larger, stronger companies have an advantage over the weaker companies. I think that's where the regulators will oppose it.

You can get around it a little bit, and Guardian does this also if you think about it. You can invest in convertible bonds, get them onto your books to a great extent with a bond type profile, and still have some of the upside of the equity market.

Mr. Cowell: Maybe you should argue that it is the successful company that can do this and the unsuccessful ones that cannot. Therefore, they ought to be encouraged. But then I think some of the regulators would say, "Well, Executive Life had the appearance of being successful." However, I thought theirs was a junk bond problem, not a common stock issue.

Mr. de Palo: If you don't have a great deal of surplus, you probably shouldn't be heavily in common stock with risk entities. But if you do, you should be allowed to do it.

Mr. Miller: Somebody asked a question about whether we did anything about this analysis. We've done that same analysis.

Mr. Cowell: Yes. I think Tony Zeppetella asked what we do with this.

Mr. Miller: There's a question that we should be asking our companies regarding the target RBC ratio and a return on capital (ROC) goal. Are we at or above our target RBC ratio? The main question I have is that if I don't use this surplus, what do we have in our back pocket that's going to earn 18%? If we don't have anything, then I think that the analysis right there is missing the actual opportunity cost of holding extra RBC.

We talk about our goals, and it's my opinion that our goal is actually just more. We'd like to have more money than we did before. An ROC goal or a hurdle rate ought to be able to tell us the point at which I have enough investment opportunities that I know I could earn 18% with my next dollar of surplus. Is that the actual

answer? I don't believe it is in my company because I think we're quite a bit higher than our RBC goal. If that is the actual answer, then this is a very valid comparison. If it's not the answer, then you're just fooling yourself into how much it costs to have extra RBC.

I'll give you an example that has nothing to do with stocks. Is the RBC on a mortgage much greater than the RBC on a credit tenant loan (CTL)? We had some CTLs whose main impediment to being a CTL was that the insurance company that was insuring the properties wasn't good enough. The question came out, would it be worth it to buy the insurance for them? The answer is, yes, if you went through that allocation. Is that the amount of money that we should get? Avoiding opportunity cost was actually greater than the amount it would cost to buy the insurance. In that case, I think we actually did because the insurance was an additional policy. That's a question that comes up often in the investment department. I think it just depends upon what you have in your back pocket and what else you are planning on investing in.

Mr. Cowell: Yes, that's a very good point. Have other companies struggled with this question? I know we often talked in Committee about how the risk-based capital formulas are potentially leading to a great deal of gaming. I think this probably would be more of a concern to the regulators, if companies were becoming more risky, but I think the perception is they're becoming less risky. There's some concern that they're not taking sufficient risk, and this goes back to Armand's point of generating the right kind of return for their policyholders and stockholders. Does this issue come up in your companies? In your organizations is it the RBC process that inhibits you from doing what you think is the best course of economic action?

Mr. Reiskytl: I think we addressed that question earlier, Mike, when people asked whether RBC was a controlling factor in our decisions. As a member of the group that put this together, I had a fundamental concern with it. Clearly, as Mike commented, risk-based capital was never designed to take 175% of anything, and to do that is just a distortion. I think we've said that every time the committee has talked about this subject. Hence, through this analysis, you should realize you are misusing the risk-based capital. Just start with that premise. It's wrong, but if you want to do it go right ahead, it's your prerogative. We actuaries all know the old marginal and separate line theories. Even if your target is 175% in aggregate, you're going to get different answers and different results depending on how you do it. So I caution you: if you do this analysis, be wary that you're doing it wrong.

Second, what is right? I believe the correct way and the way we do it is to use your own surplus formula. You should have an internal surplus formula. Any tie to

175% may be just pure coincidence or dumb luck. When you start doing this analysis frankly, in my opinion, what you ought to be doing is looking at your own risk. I didn't say it before because I wanted to see what the group would say, and I was very pleased to see that very few people were using this analysis.

What you want to do is make sure you understand what risk you have. If you're going to be a well-run company, you had better know what risk you have, and you ought to be investing when you're looking for returns over risk. Let's not get mired down into mathematical analysis; let's get at the practical issue. If the asset is acting like an equity, then maybe it deserves the risk of an equity. And if you think that equity risk is wrong, then come up with something else, but be prepared as an actuary and an investment person to defend what the risk characteristics of that particular investment are. We on the committee know that people find a way around the rules. They'll collaterize assets and do other things to work around the rules. That's the free enterprise system and that's fine.

Nevertheless, don't get away from the fundamentals. There is risk involved in other investments. They're clearly at risk in equities and you better have the surplus to support it, and you ought to be a responsible member of management.

Mr. Florian: My point is that we saw NAIC risk-based capital standards come out, and I think many companies were concerned that the press or someone would pick it up and misuse it. I think there was a beauty contest by most companies in the early years of risk-based capital. Everybody seemed to be strengthening their RBC ratios. That seems to have passed somewhat now. I think the reality has been that the companies and newspapers like *USA Today* haven't jumped on the bandwagon and said, "Oh, this company has gone down three, or up five, or down seven points." I think companies are free now to use risk-based capital as an important tool, and I think it is an NAIC tool. But do not run your company based on NAIC risk-based capital. I think the rating agencies and others are looking to see what the insurance companies can do to really add value. Our competitors go beyond the insurance industry, and we have to add value to our customers through expense control investments, or in whatever way we can. I think that should be the main focus on adding value.

Mr. Cowell: Jim raised a question about using your own formula. How many companies here have a formula that is distinct from the NAIC? (Almost half of the audience raised their hands.) That's encouraging. Of those who have a formula that's distinct from the NAIC's, how many of you, when it really comes down to the crunch, err on the side of your formula versus theirs? (One.)

Mr. Reiskytl: What do you mean by err?

Mr. Cowell: Tell us how you do that, Theresa.

Ms. Teresa N. Carnazzo: I'm with Principal Mutual. We calculate both the RBC formula and we calculate our own internal method, and we take whatever is greater. I believe it's on a line-of-business basis.

Mr. Cowell: I can tell you we're in the process of reviewing the risk-based capital formula for one of our major lines of business. The major concern is not all the technical work that we're going to have to do to do it, it is how it is going to stack up against Standard & Poor's and Moody's formulas. I used to work for a mutual company and now I work for a stock company, and I can see the difference. You can be as theoretical as you want, but if you're battling perceptions out there, all of the analysis in the world isn't going to do it. You have to do it, but you have to do much more; you have to somehow sell it and communicate it.

Mr. Reiskytl: I think since this is designed as a minimum requirement for a weakly capitalized company, if one has a factor that is lower than one of these factors, you ought to at least examine your own underlying data, or your own underlying assumptions, to be sure that you can demonstrate that that, in fact, is an appropriate assumption for your company.

When you do your own formula, you understand your company so much better. It's difficult in the asset arena. In the C-2, C-3, and C-4 area, you know what your risks are, and that can be better represented than you could ever expect to do by a general formula applicable to the industry. It's probably a little more difficult to suggest that your asset default risk is different than that on an asset than is generally recognized by the industry unless you have a basis for it. We, in fact, have run into this when we have compared the risk-based capital results to ours in order to be sure that we're comfortable with our factors relative to RBC.

Mr. Cowell: In theory, Jim, I totally agree with you. This is only one perspective of risk-based capital. Think of risk-based capital as an extension of the reserve process. If you're holding your reserves on a gross-premium, zero-margin basis, you have approximately a 50% probability of not having enough money to pay off your obligations. If you look at this in a purely theoretical context, as you add additional capital or subtract capital, you come up with a nearly logistic curve. It is logistic in theory. That is, it is symmetric around the 50% point with zero capital. If you're holding 175%, 200%, or more of RBC, then those additional increments are very inefficient.

The problem that I see, at least with the rating agencies and to some extent with the press, the public, and the regulators, too, is that they have a sense that the more

capital you add, the stronger you're going to be. They don't see how quickly the curve flattens as you add more capital, but, heaven forbid if you are perceived as having insufficient capital. The public perception is that, if you go down below a certain level, you reach a credibility problem or a crisis of confidence threshold, and the next thing you have is, sometimes literally, policyholders standing at the front door. I think the problem in any risk-based capital approach is to convince the public—the policyholders, your stockholders, the regulators, and the press—of your solvency. How should you communicate this syndrome?

We're getting slightly off of the subject of investments. We're getting more into the general approach of managing a risk entity for risk capital. Let's hear what another speaker has to say.

Ms. Barbara L. Snyder: I'm with General American Life. My comments and questions won't clarify the matter; they'll just muddy the waters more. I am chairperson of the Financial Reporting Steering Committee of the AAA. One month ago I received a letter from the NAIC asking us to coordinate a cross-discipline task force to specifically respond to the NAIC and make recommendations about how to approach risk-based liquidity. In particular, they are questioning whether it should be a separate requirement. Should it be an additional factor to risk-based capital? They also threw in an issue about coordinating consistency of factors among the Health Organization Casualty and Life formulas. Our response to them is, we're not going to look at that; we will address their issue of risk-based liquidity. We're dealing with many issues on risk-based capital, but what are we going to do with risk-based liquidity? I'd be interested in getting some feedback from SOA and AAA members about that.

We had a small task force that has had one conference call, and what we anticipate doing is giving a progress report to the NAIC in September and a recommendation in December, although we're very unspecific about what that recommendation may be. It may be a recommendation that we need to study the topic more. But the NAIC is pushing on this issue, and they expect to see some type of response from actuaries. In fact, the NAIC has asked us to work with the other disciplines. It's a task force composed of life, health, and casualty actuaries to look at risk-based liquidity.

Mr. Cowell: It's an important question and issue, Barbara. Let me just give you two perspectives: One, most of the work that was done for the NAIC, and continues to be done, builds on the work that the SOA started 20 years ago. When the Committee on Valuation and Related Areas (COVARA) was formed, its various task forces and committees generated thousands of pages of analysis.

This was our base. There was an actuarial scientific base that was built. We didn't easily get to our solution, but I think we got there much quicker than we would have if we hadn't had this basic research on risk.

The second point is that every time we seem to bring a new member on board, the NAIC Risk-Based Capital Academy Task Force's immediate concern is invariably, "What about liquidity?" Once they've been with the process for a while, I think most of them realize that it is a related, but somewhat distant cousin of what we're talking about. My suggestion is that we strongly urge the NAIC not to rush ahead with this, but to do the solid groundwork that needs to be done to analyze liquidity. The idea that you could take off from RBC and come to a quick answer, I think, is not going to get you where you want to be.

Ms. Snyder: I agree. I think that's the concern of the actuaries involved. That doesn't keep the NAIC from insisting that something be done, or some type of recommendations be made. It's almost, "You the actuaries come up with something or at least, give us a reasonable response, or we, the NAIC, will then take it into our own hands and do it for you." It puts you between a rock and a hard place. Either you react or you are acted on by others and you may not get something that makes sense to actuaries. We are saying that we will make a recommendation and we will not be specific as to what that recommendation might involve or how concrete that recommendation will be, but it is going to be a thorny question.

They are looking, in particular, at the Mutual Benefit and saying, "Yes, Mutual Benefit had a run on the bank." They also had illiquid assets and were not able to respond to that run. There is some type of measure or factor applied in looking at the liquidity of assets, the business you're writing, the probability of a run on the bank, or all these other factors that build, either independently or as part of the risk-based capital formula, into a liquidity factor.

Mr. Cowell: This is a very good issue. I'd like to talk with you later on some of the experiences that Jim and I have had in dealing with regulators. It gets you into an environment that you were not trained for in exams.

Mr. de Palo: I'd like to comment on liquidity because the subject was brought up. The NAIC will probably go to the least common denominator. They will not distinguish between what types of liability the companies have. We want a formula approach that, if you have this amount of assets, you have to have this amount of liquidity. Most companies that have annual-premium-type products don't have a high need for liquidity because they have many renewal premiums coming in. Single-premium products, on the other hand, tend to have a stream going out. Certain companies, like Confederation, had a different problem. They were into

block-type insurance products. They had the characteristics of an annual premium, but in many respects they were single premium in nature because the entire block can move.

Similar situations existed with Mutual Benefit. What I was speaking of is large corporate-owned life insurance where the decision maker is not buying the insurance purely for the insurance need, but actively looking at the whole block for the ability to move a block in unison. If you don't have assets that are at risk of being moved because the consumer is going to stay around, and is not going to react rapidly, you can have a different profile. But when you have a bank-owned reinsurance block, or you have a corporate owned life insurance (COLI) block of business, someone can say, "Your ratings went down from AA to A, or AAA to AA. I am going to move the entire block of business." I've actually seen this in some of the proposed agreements between companies that want to go into these lines of business and some of the large brokerage companies. The brokers wanted a guarantee that the company would facilitate the movement of the block if the rating of the company ever went down. New York state had to react to this, and there's an outright forbidding action to allow such a guarantee. The reason for that is very simple: if you have a class of policyholders that are sophisticated investors, and this maybe is a mutual company issue, and you have people who are individual policyholders, the sophisticated investor can pull out the good assets, at the expense of the individual policyholders. That's a problem for a mutual company.

It is probably a problem with any company. I think this run on the bank can be better served by having circuit breakers, so a large client cannot move the block. If they can move the block, there should be a market-value adjustment. The regulators have to make a distinction between individual policyholders. We want to give them access to their money. There is a need to say to someone: "If your cash flow is negative for the month, you have to go to the regulators, and if it's due to large clientele, maybe it's time to freeze the outflow of money before the large clients get the money, leaving everyone else to pay the bill." I think that's the real issue.

Mr. Cowell: I think you've touched on an area, Armand, that surprised me that it didn't come up explicitly throughout this whole discussion. We've heard about the valuation actuary and the sales illustration actuary. We've had some not entirely facetious discussion about the need for a risk-based capital actuary. I would ask, why not address the issue of an extension of the valuation actuary's responsibility to make sure not only that the assets are sufficient to back the reserves, but also that the risk-based capital is sufficient to protect the interest of the policyholders at a certain level of statistical confidence? This is a rhetorical question, and the answer is both yes and no. Should we be looking at the responsibilities of the risk-based capital actuary?