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## Session 20 PD Chief Risk Officer Forum

**Track:** Risk Management

**Moderator:** David N. Ingram

**Panelists:** Beverly S. Margolian  
B. John Manistre  
Randy E. Tillis

*Summary: A panel of chief risk officers (CROs) discuss their roles, responsibilities and challenges in implementing and managing risk within an insurance enterprise. Topics related to the measurement and management of risk to be covered are: organization of the risk management function; key CRO responsibilities; measurement infrastructure; process of measuring and managing risk; risk culture and assimilation of risk into the organization; management buy in and support; operational risk; credit risk; risk aggregation; the role of risk (economic) capital; and Committee of Sponsoring Organizations (COSO) enterprise risk management framework.*

**MR. DAVID N. INGRAM:** I'm hoping today to start a conversation about this chief risk officer idea. As we heard in the general session this morning, the chief risk officer is the culminating idea in the evolution of company risk management. What we see in the environment right now is a number of companies that don't have chief risk officers and that aren't doing any enterprise risk management. There are also companies that don't have chief risk officers and are doing enterprise risk management through a committee structure. There are companies that have hired chief risk officers from outside the industry, and then there are the practitioners that have actuaries as chief risk officers. That's what we'll focus on today.

We have with us this morning three actuaries who are chief risk officers, and let me just give a brief introduction. When they give their comments, they'll fill you in on

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more of the background of what they're doing. Bev Margolian is the chief risk officer of an international Canadian company, Manufacturers Life Insurance Company (Manulife). John Manistre is the chief risk officer for North America for an international non-North American company. Randy Tillis is the chief risk officer of the life unit of a multiline company. I think we have some fairly different perspectives there, and one of the things I hope we'll get into is how those differences work into the job.

The format we'll try is, as I said, a conversation. I have a number of questions to ask the panelists, and we'll start having a conversation. If you all want to join in on this conversation at some point, let us know, and we'd be glad to have you join. We hope to spark some ideas that you can take back to your workplaces, continue this conversation there and then bring it back again to the Society of Actuaries. We can keep developing these ideas and this conversation.

So to kick it off, what are the key responsibilities of a chief risk officer?

**MS. BEVERLY S. MARGOLIAN:** When I took the job of chief risk officer at Manulife, it was the first one that we put in place three years ago. It has probably been the most interesting and most fun job I've had in a long time at Manulife. It's a really exciting position. We just acquired another company. When the chief investment officer was talking to his new management team from the other company, he said, "Bev is the chief risk officer. She can ask you any question she wants. She can ask you for any material she wants because she needs to understand your businesses, and you have to support her." That's very good and strong support for the role.

If you ask 10 different companies what their chief risk officer's mandate is, the answers would be very different, because the chief risk officer's mandate very much depends on the organization of the company, the business model and the particular skill set. If it's an actuary in a life company or if it's somebody from a bank who has credit experience or whatever, the mandate of that chief risk officer will be very different. It also depends on the driving forces behind the companies' establishing the position of the chief risk officer. As Dave mentioned, I work for a large multinational company with a very diverse set of businesses operating in about 15 countries worldwide. We have tens of thousands of employees across the globe, so it's very important for us to have some centralized and coordinated processes.

Even though I'm chief risk officer, I always think of our chief executive officer as being the chief risk officer. He is certainly accountable to the board for all of the risk-taking activities of the company. He's delegating his responsibilities to me. If your chief executive officer isn't feeling that he's accountable for the risk-taking activities of the company, you don't have a strong risk management culture and risk management agenda from the top. I'm very fortunate because at Manulife, risk management has been ingrained in our operations for as long as I can remember, and I've worked there for longer than I care to say. It has certainly always been a

very important part of our culture and one of our core competencies.

My job as chief risk officer is to develop and administer our company's enterprise risk management program. Basically that means I must ensure that all the worldwide risk-taking activities for the CEO—and, in fact, the chief financial officer (CFO)—are being managed. I also champion the risk management practices and culture across the company. I'm charged with ensuring our risk management framework is appropriate. When I say "our risk management framework," I mean our risk governance structure; our risk policies and processes; our risk exposure measurement, techniques and processes; and reporting around risk—the way we manage risk exposures around our limits. Aside from putting that framework in place, I must ensure that management makes decisions within the framework. It's a living, breathing risk management framework; it's not something off to the side.

Also, my role is to ensure that both senior management and the board of directors have the information they need to monitor the risk positions and compliance with our risk policies. Our board has a committee with a specific mandate for risk oversight. Our audit committee is actually an audit and risk management committee, and I have the role of updating them formally and regularly regarding our key risk exposures and emerging risks related to the company. We also make sure we take all our risk policies to the board regularly for review and approval.

In summary, it's about making sure that we have policies, processes, practices and a culture in place throughout our global organization that allow us to manage risk, not as a separate process, but as part of managing our business, and ensuring that all of the business management buys into that, understands it and makes decisions under the risk management framework that we put in place.

**MR. INGRAM:** John or Randy, is there anything either of you want to add on chief risk officer responsibilities? Do your responsibilities differ greatly from that?

**MR. RANDY E. TILLIS:** Because I am a risk person in a unit, as opposed to the total company, my focus tends to be more on my unit's concerns and risks. With a life part of a multiline company, we deal a lot more with the product areas and our investment areas than we do in looking at the total risk. But we do also deal with our parent company in looking at certain exposures. What happens if the hurricane season is worse than expected? We're the ones who have to provide them with the life company perspective. Here's our exposure. Here's what we think the additional pieces can be. With that said, we're sometimes still trying to work out these rules with our parent and how to take it to the board. Our role is more one of helping to define a good way to view the risk at our level and hopefully getting it all rolled up in a complete package.

**MS. MARGOLIAN:** I'll just add to that. I was trying not to go into all the detail, but my group consists of about 40 people. We do set the rules of the game in how to measure risk and how to manage it. We certainly work very interactively with the

business units. We're not up there developing policy and reporting risks at the back end. Our group approves every product before it's launched. It approves every investment strategy and asset/liability modeling (ALM) strategy and deals with credit policies in situations. Our group does not make the credit approval decisions. It's very much working interactively with units like yours. It's not an independent review function, such as an auditor, but is very much a partnership with the business units to see how we can improve the risk management practices. How do we get those risk management practices living and breathing daily in the business decisions?

**MR. B. JOHN MANISTRE:** We're one year into a program, whereas Bev is a little further into it. I would certainly say that's where we want to be. That's not where we necessarily are right now, which is another issue. I'm sure Bev wouldn't say she's where she ultimately wants to be either, but it's a long, long path there. The role I see myself in is somewhat in between the two roles. I have a chief risk officer in the Hague who is charged with the responsibility worldwide, more or less in the same role as Bev. I'm one notch down from there. In my portfolio, so to speak, I have close to 15 almost independent business divisions in North America. Part of my job is to ask myself, "How do I turn around to my chief risk officer in the Hague and convince both myself and him that things are being done the way they're supposed to be done?"

The reality is that risk can only be managed by the people who are actually there on the front line. I have more than a half-dozen physical locations in North America where substantial operations of my company take place; I can't possibly know what's going on in each of them. What I can do, obviously, is set policies and ask that people who are close to the front line see that there are capable professionals doing the things that need to be done where the work needs to be done. At best, I can set standards and practices for those people and ensure that those practices and procedures are, in fact, being followed. Obviously, it also has to be done in a way that allows me to aggregate risk across the organization and, at the same time, allows those businesses to function with the amount of independence that they should have. It's a stated part of my own organization's culture that business units are supposed to function as autonomous businesses. That's a stated part of the organization's culture, so I have to respect that as well. I often view the chief risk officer role and that desire for organizational autonomy as being somewhat at odds, but that's part of the challenge.

**MR. INGRAM:** Let's try to get a little more specific. We talked about roles and responsibilities. Can you give some specific examples of what you've been doing the last year and what you're thinking of doing in the next year?

**MR. TILLIS:** In looking at what we've done in the last year, the key item that we've been trying to focus on is helping to develop the culture—sort of what Bev was talking about. We want people to look at enterprise risk as a total thing. We're not trying to go in and say to the product people or to the investment people or to

the ALM group, "This is the way you should be doing your job." That is their responsibility. They know what they're doing. They're the professionals. But we want them to consider what the risk management can do. What can we do as an enterprise that would help if you look at it more holistically—the total picture? Just because you want to invest a certain way may not fit with what somebody on the other side of the product aisle is trying to accomplish. A lot of what we're doing is trying to keep those communication channels open, to help cross-pollinate ideas on what people are looking to do and to help develop the risk profiles that the company is willing to take and to communicate that out among everybody in the company. Hopefully, everybody can work together on it.

With that said, another part of what we've tried to do in the last year is to keep current on what's changing out there in our environment. When the Committee of Sponsoring Organizations (COSO) came out in September or October, that was a big surprise to a lot of people. Here was a pronouncement that everybody should be doing something. What did it all mean to our company? How can we react to this? What should we be looking at? A lot of what I've been doing in the last year or so is to help develop the way that we want to interact, to help change the culture and to help people feel comfortable that we're not trying to do their jobs. We're trying to help them do their jobs better. That's the main focus.

**MR. INGRAM:** Do you have any specific things you've done that you can share?

**MR. MANISTRE:** So far, we have been focusing on coming up with things that we call a risk inventory. What are the things that we think we should look at? What can be used to quantify those, and what information do we have that allows us to quantify those things now? Following on with what you called the COSO idea, quite a few documents have been written in the past few years that talk about essentially one way of looking at risk management. On one dimension, here's an inventory of risk. From another dimension, here's an inventory of risk management activities. At each intersection in that matrix, you can say, "What are the things that I should be doing to mitigate each risk, and am I, in fact, doing them? As chief risk officer, I have to know what the answer is at each intersection on that matrix, and do I?"

The answer is, no, I don't. Obviously I know some of them, and some of them I don't. Some of them are relatively easy to get a hold of, and some aren't. Obviously one objective is to say, "What are all the risk mitigation activities in the policy setting, which is to say, what constitutes too much or too little of any given risk?" Are there both quantitative things and nonquantitative things? We've reached a state where we think we have, for now, a framework of what this matrix looks like. We've quantified as much as we can, arguably without going out and demanding more of our organization than it has been doing so far. But now it's time to go further. For example, I may say, "I can't answer this question now without installing a new process in the organization." Ergo, now it's time to install a new process.

**MS. MARGOLIAN:** If I look back over the last three years since I've become the chief risk officer, a kind of evolution is happening. I was lucky because risk management, as probably in every insurance company, was a foreign concept, and we already had a strong corporate culture and corporate center, so enterprise risk management was not that foreign of a concept at Manulife. I could pick my spots. One of the first things we did, like John, was to do the risk inventory, map that and get the reporting the way we wanted with the level of processes and the tools we already had. Then we sat back and said, "What do we want to do to move our risk assessments to the next level?"

One of the things that we've been focusing on is the development of an economic capital-at-risk framework and also an earnings-at-risk framework. The economic capital-at-risk framework will tell you about your extreme tail risk, your risk of insolvency. But that's not all you have to worry about, because your shareholders are worried about earnings volatility. So, we'll have to look at a framework for managing the risk in the normal range and then the way of managing, pricing and costing for risks of extreme events. We've been busy doing that. The important thing that I've focused on is not just developing a huge framework for calculating a bunch of numbers and not working out how we will use them. There's just as much focus on how we will use these measures and what we'll use them for, rather than getting the perfect quantification, because you'll never get the perfect quantification.

We have already embedded, in terms of our pricing and our analysis of investment strategy, some of these economic capital concepts. We're looking at the distribution of returns as well as the typical expected returns. That has been very helpful for management—financial management and business management—to understand some of the differences in the products. We've been able to tweak our products to get the best match between what has the lowest risk and what's the most saleable to the marketplace. If you really understand some of that, you can come up with the best intersection of that. Certainly that has been a big priority for us in the past year.

**MR. INGRAM:** The next question is, what steps has the management of your company taken to understand the key risks of the company and the risk management issues better? John, why don't you go first on this one?

**MR. MANISTRE:** The enterprise risk management activity ultimately was driven from the top on down. They started at the very highest corporate level, where the organization formed what it called a Risk and Capital Committee, which consisted largely of the CFOs of the largest operating units of the organization. It, in turn, said it wanted reports that tell it, at the highest possible level, how much market risk do I have? How much of this risk do I have? How much of that? That would allow it to see where that risk is coming from in the various parts of the organization. That demand then filtered down to the next level. In our organization, that essentially is the country unit level. Each country unit can be anything from

one to maybe 15 different business units.

It's gone down one level, and it's in the process of going down to the next level. In each case the desire initially is a reporting request. "Tell me how much of this I have." That means you then have to decide how you measure it, how you quantify it and how you roll it up in such a way that when you aggregate it, you get something that makes sense. Again, this cuts back to the risk inventory issue that I was talking about. There are some things you can quantify relatively quickly and easily. For example, credit risk was already a very highly developed process where all kinds of reporting already existed. ALM was relatively well-developed. While reporting in these areas is not perfect by any means, there were extensive tools already there. Then you find yourself with other areas for which there's very little infrastructure; you have to start building things from scratch.

So, there's a desire at the most senior level of the organization that then filters down to the senior levels as you drill down to where we're looking at this idea of essentially having what I would call a risk and capital committee, whose job it is to set policy. This is the group that I view as my major client. It is their authority to set policy. They look to me for advice on what that policy should be, but ultimately it's their responsibility. This is the group to whom we report, and this is one way of knowing that this is the group of people that is paying attention to what the risks are and that is, obviously, very aware of all the shortcomings of what we can and cannot do at the present time.

**MR. INGRAM:** Any comments on that, Randy or Bev?

**MR. TILLIS:** Our CFO is one of the major drivers for us to develop some of these reports. Some of the metrics are, as you say, the very standard credit, interest rate risk and equity risk. That's a lot of what our focus has been. As it's expanded in our organization, the property and casualty side has gotten much more interested in doing it. They've now built out more of an enterprise risk council, which does have as members the chairmen and the presidents of the business units, and they expect to meet every couple of months to discuss how the risks are. How does it look? So it's getting a lot of attention from that standpoint. People really are trying to lay out what is an important item and then trying to decide which of those are actionable, which I think is the whole point of what enterprise risk is about. Besides giving some guidelines, you have to give them opportunities to better their units or to help move the company forward.

**MS. MARGOLIAN:** We've tried to involve management more as we've gone along—senior management and the general management of the businesses. We've always had a global asset/liability committee, a global credit committee and a global product risk committee. They're the techies of the world, not the general managers. This year we implemented—because we had to find another name—a corporate risk management committee, which consisted of the six general managers of all of our businesses worldwide, as well as the chief legal counsel, the

chief information officer and every chief you could think of in the company, basically to take it out of the technical hands. We meet every couple of months, and we look at things such as, what are the biggest risks we're facing?

I do a quarterly risk report to the board of directors and highlight the top five things I'm worried about right now for the company. This group sits and discusses what is happening in the company. What does our profile look like? They're not using those exact words, but those are the kinds of things that they're talking about. We also need to approve all of our risk policies before they go to the board. The general managers—not just the techies and the board—are buying in to all of our risk policies. It has been very helpful to engage them in the process.

**MR. INGRAM:** What I find is that in any discussion you have of risk management or enterprise risk management or however you want to characterize it, every subject overlaps with every other. I think one of the primary aspects of risk management is paying attention to the interrelationships of things, and that applies to these questions and answers as well. I've gotten a lot of pieces of the answer to this question already, but I'll ask it again anyway and see if you have different ways of phrasing it this time. What is the risk management mandate in your company? Bev, why don't you go first?

**MS. MARGOLIAN:** I've written down a formal enterprise risk policy for the company. It says that our company employs an integrated enterprise-wide framework to manage all risks across the organization, and it guides all of our risk-taking activities and ensures that they're aligned with the company's overall risk-taking philosophy, as well as shareholders' and policyholder expectations. It's a nice "motherhood" statement. Important in that is that we acknowledge in our risk management mandate that we do have to take risks, and it's necessary and integral to achieving our business and strategic objectives. A very important piece of our risk management framework is the understanding by everyone that it's not a separate and distinct process; risk management is part of business management. It's part of every business decision and every operational process, and it has to be taken care of that way. It has to be carried out that way.

The mandate of our risk management—and, indeed, our business management—is to make sure that we only take on risk that we can measure and manage. If we can't understand the risk, we won't take it on. We hopefully know about it, but we're very careful in our risk assessment processes with some of our new ventures, new products and new investment strategies to make sure that we do assess and understand those risks. We hold capital that's appropriate to the risk, and that's a combination of looking at both economic-based capital and local regulatory requirements. You can't fool yourself if you have to hold more than maybe you think you need because you have to support what you have to put into the local operations. We target an appropriate return on the risk-based capital. We obviously limit our aggregate level of risk, and we hope that we can diversify the risk.



One of our mandates is to ensure that we provide, as risk management professionals, the best information about risk to the business decision-makers so that they can make the most informed decisions and plan for the contingencies. There are probably lots of presentations here about trying to perfect the quantification of risk, of risk assessments and risk measures. While we're trying to do that too, we all recognize that no numbers and no amount of metrics and numbers can take the place of good managers who fundamentally understand the risks in their business. So many organizations have gotten fooled by looking at the numbers and not taking common business judgments. Part of our risk management is to get the best information out there but not to use it blindly. You have to have strong business managers who believe that managing risk—managing the bottom line—is their responsibility. The business managers are our first line of defense. We're the second line. They have to understand their business. We hope to be able to give them the best information we can, but it's up to them to manage those risks and also to know that we're all trying to manage a lot of different risks.

I spoke before about the tail risk, the risk of insolvency. I talked about the risk of volatility in earnings. Those are two financial risks, but there are a lot of other risks that aren't obvious and don't immediately impact your financials. Those include reputation risk and the risk of being able to open up your shop and operate. Those will hit your earnings or your stock prices slowly or quickly. It's very important to have a holistic approach—not just financial, but operational, strategic and reputation as well.

The last thing regarding what we think is important about our risk management mandate is that the expectations of everyone—your clients, the investors, regulators, rating agencies and professionals—are changing rapidly. The world around us is changing rapidly. The only thing we know about risk management is that it will change and that our mandate is to make sure that we, hopefully, keep ahead of, but at the very least stay up with, the changing needs of our businesses and the changing environment out there. That means doing research and development and championing new risk management practices, new measurements and new techniques around management. It's all part of our mandate.

**MR. INGRAM:** John or Randy, do you have anything to add to what you said already about your mandate?

**MR. MANISTRE:** I don't have a whole lot more. It's a distributed group of risk managers. The higher you are in that chain, the more responsibility you have for giving direction to what's going on lower down. You have to ensure both consistency and quality of that work. In my role, in part, I'm looking to provide leadership to the rest of my particular backyard. It's also partly my job to respond to leadership initiatives coming from further up the chain. But fundamentally, what's the mandate of the function, regardless of where you are in this hierarchy? I'll come back to my matrix analogy. Do you have in mind the appropriate inventory of risks for whatever it is you are doing? That could be very different for a business

unit that has institutional clients versus a retail business.

Are you engaging in the appropriate risk mitigation activities? If you can answer that question at the business unit level—or within a given business, it may drill down even deeper—and then orchestrate it in such a way that there's a unifying set of principles that allows that to be aggregated, even when you have a very diverse mix of businesses, then you've gone a long way toward achieving your objective.

**MR. TILLIS:** I've only been told a couple of times that the real mandate is to be aware of the risks that will have x effect on our share price. That's one of the key things that comes up. Then you get into, "Let's look at this" and "How much income, in fact, would that have?" Those are the two repeated, but sometimes not codified, mandates that come out quite often.

**MR. INGRAM:** No surprises?

**MR. TILLIS:** No surprises. How can we avoid the surprises?

**MR. INGRAM:** I know the history of risk management in banking. A huge driver there was the regulators coming in, seeing problems that banks had and mandating responses to those problems. At least in the U.S., there have been no such regulatory mandates. In your different organizations and in the different regulatory environments that you all operate in. What is really driving and pushing the existence of your position and of the risk management effort in your companies? Randy, do you want to start with that one?

**MR. TILLIS:** I have three or four things, but I think one of the things that helped drive it was outside consultants. They came in and convinced management that it was a good idea, which is always helpful. Having those people spearhead it lays the groundwork sometimes. Some of the other drivers were our CFO and our chairman. They want to be aware of what could possibly go wrong. We've had some bad experiences in the past few years. There were some problems with the credit risk. A few people probably had some mortgages or bonds that defaulted. We had some problems in our company with some variable annuity risk that we didn't quite understand. At the time, we were starting to put on a lot of business. Those are the sorts of things that prompted them to focus on what else is out there. What can we start focusing on that will help us be prepared going forward?

Another driver, I think, were the rating agencies. As people have said, it's not required yet, perhaps, but there's a lot of, "What can you share with us? What else can you tell us about this? What have you done internally to help support the way your company is behaving?" Looking at some of those things, beyond liquidity or other measures, gives the rating agencies a better feel for what you as a company are doing. Some of those things are the drivers inside of our company of why risk management is important, and we need to look at it as more than just individual product line management or individual strategies.

**MR. MANISTRE:** My own organization has, as I mentioned before, a European base. The Basel Accord has had a huge impact on the banking industry worldwide but, in particular, more so in Europe than North America. I don't think there's quite the schism between insurance and banking in Europe that we have here in North America, so there have tended to be more ideas flopping back and forth between the two industries.

If you're an insurer with a European base, and there are people in your head office in Europe who are more familiar and perhaps more accepting of a lot of the ideas that are developing in the banking industry there, I think that's certainly a motivator. I think the other issues—some of which have already been mentioned—include that the time is coming when *not* having a pretty solid enterprise risk management process in place will be viewed as a negative by the various publics that you have to deal with, be they rating agencies or regulators.

The insurance regulators, certainly in the United States, haven't come down and said, "Thou shalt do this." There are certainly lots of indications from other jurisdictions where you have a more centralized insurance. In fact, in a few countries, such as Canada and Britain, where you already have one regulator for all financial institutions, they sit down and say, "This is a good idea. It makes sense for banks. It makes just as much sense for insurance companies." To me it's only a question of when, not if, we'll all essentially be held to a very similar standard. Having said that, I think it isn't a huge leap to say that certain organizations will go with that flow a little quicker than others. Obviously, for the reasons I've just articulated, a European insurer will react to that perhaps more quickly than a purely domestic U.S. company, but the pressure will be there. It's not "if." It's only "when."

**FROM THE FLOOR:** I didn't understand your allusion to Basel.

**MR. MANISTRE:** Basel is to the world banking community what the NAIC is to the U.S. insurance industry. That would be a rough analogy. Again, it has no particular authority, but it's an association of all the banking regulators across the world. It does research. It develops regulations, which member countries can't largely do. In fact, there's a great deal of uniformity in banking regulation worldwide simply because most banking regulators pay a lot of attention to Basel.

**FROM THE FLOOR:** So, like with the NAIC here in the United States, if an NAIC rule or law is adopted, it becomes law in that state.

**MR. MANISTRE:** The question is, does Basel operate in the same practical way that NAIC does, to the extent that certain states basically say, "Once NAIC gives it the stamp of approval, then we do, too."? I really don't have enough knowledge. I only understand how the United States and Canada work reasonably well. What I can say is that certainly like different states here, some have more infrastructure for regulating industry than others, and the same will be true country by country

with banking. I think it's fair to say that all countries pay a lot of attention to what Basel says. Will they all implement it verbatim? Not necessarily.

**MR. INGRAM:** I don't think Basel ever recommends anything that a G7 country would disagree with.

**MR. MANISTRE:** Yes.

**MR. INGRAM:** An example is the Basel Capital Accords. There has been an awful lot of talk and press about those, and that is not mandating but allowing banks to use a company-developed model to calculate their capital requirements. In the United States, the Federal Reserve has decided to apply that new standard only to the larger banks, so they've exempted 75 percent of the banks in the United States from the Basel Accords. That's one example of how it's implemented. Other countries just say the entire industry has to do that. The exact way of implementing it varies from country to country.

**MR. TILLIS:** They get such a relief from the capital for doing this, too. The larger banks can hold a lot less *per se* because they are meeting all the guidelines and requirements of the Basel Accords.

**MS. MARGOLIAN:** The interesting thing about Basel is that for many of the types of risks, it applies only to banks right now. But a credit risk in an insurance company is the same as a credit risk in a bank. In Canada, the supervisory organization, the Office of the Superintendent of Financial Institutions (OSFI), jointly regulates the federally regulated banks and insurance companies, which is the bulk of them, and they're sitting there saying, "Why are we not implementing the same thing for the insurance companies?" Credit doesn't worry me that much because it's probably quantifiable. We can quantify it the same way the banks do. The one that kind of scares me—it's probably a topic we'll talk about—is operational risk. What the banks have to go through to quantify their operational risk exposures could employ a lot of actuaries and other people for the next 10 years at insurance companies. We have to figure out the value of that.

**MS. THERESA M. RESNICK:** Do any of you coordinate your activities with the individuals who are coordinating your Sarbanes-Oxley activities?

**MS. MARGOLIAN:** Yes. The general approach we take in the risk management area is that there are a lot of areas of risk that are being managed by other, let's say specialist, groups. My role as chief risk officer is to make sure it happens, not to do it. In fact, our Sarbanes-Oxley activities are being coordinated through our controller's group. Of course, people from my group are participating on the task force steering committees, et cetera, but it's being centrally coordinated through our corporate controller.

**MR. MANISTRE:** I'll say two things about the whole Sarbanes-Oxley issue. One,

you have to understand that the chief risk officer is interested in all risks, and Sarbanes-Oxley has a very narrow focus. The one thing I don't like about the Sarbanes-Oxley process is that it's what I would call a rules-based exercise as opposed to a principles-based exercise. I hold the view that at the end of the day risk management ought to be a principles-based, as opposed to a rules-based, exercise. I've often been asked, does enterprise risk management ultimately mean taking that kind of a thing and just expanding the scope out to everything? My answer is no. That's not what I view enterprise risk management as being. But you have to do it. It's there, and so you may as well integrate it into your process and make use of it because there's a heck of a lot of work involved. You certainly want to get the most value out of it that you can. One of the things, for example, that comes out of it—we haven't talked about operational risk and key risk indicators yet—is that a number of key risk indicators can be drawn out of a Sarbanes-Oxley process, which is potentially useful.

**MR. INGRAM:** I don't know if we had finished talking about risk management drivers. Bev, do you have anything you want to add to that?

**MS. MARGOLIAN:** Sure. It was a hard decision for Manulife to decide to appoint a chief risk officer and develop an enterprise risk management group because we thought, "We have great risk management practices. Why doesn't everyone understand that? We're managing risk well. We haven't had many surprises. We know what we're doing. Each area looks at things globally." We had this conversation for about 12 to 18 months, and we finally came to the conclusion that our business operations are growing and expanding, and there are areas of the company that aren't as well developed as others. There are mature operations that have their risk management practices down. There are fledgling operations, and it would be very useful to have an area focusing on helping those along and setting the standards for those in one holistic way.

Also, just to expand on John's point, in Canada the regulators do, in effect, require risk management. OSFI has set out their standards of sound business practice, which require a lot of policies and practices that are effectively risk management practices. Basically, they audit for our risk. They assess the risk and the quality of our risk management practices. They're not actually doing the ticking and blocking anymore when OSFI comes along, and I think it's actually an improvement. They're trying to understand the businesses and the risks in those. They're doing industry-wide audits—often of particular issues, not focusing on one company—to understand those issues. Also, the Canadian banks have had chief risk officers in their stables for some time. They regulate the banks, too. They're saying, "It works for them. Why doesn't it work for you? Why can you do it without it?" There are a lot of forces coming together, but the regulatory influence, as well as our own internal needs, was important in making our decision.

**MR. INGRAM:** It's quite possible that a number of you don't know this, but the NAIC is developing a parallel to the supervisory framework that Bev just mentioned

that OSFI has. They haven't formally adopted this yet, but it's in a very late draft stage. The audit function of the state insurance departments will be changed to a risk management-based audit so that they will do an analysis of risks and of risk management activities to determine where they will look in their audit, just as Bev just described, as opposed to trying to make sure that they can reproduce your financial statements with 17<sup>th</sup> century equipment or something.

**MS. MARGOLIAN:** OSFI goes so far as to give each company a risk rating. It's confidential, it's not public and it's a bit controversial, but they're actually attempting to understand and rate the risks and risk management practices of those companies very seriously.

**MR. INGRAM:** The NAIC draft pretty much took the OSFI material word for word and added a lot to it. They did not subtract anything. Coming attractions for those of you who operate in the United States will be more regulatory push toward risk management.

John, I think you did mention operational risk, so why don't you say something about that then? What are you doing with operational risk now, and in a perfect world, how would you like to be dealing with it?

**MR. MANISTRE:** I'd say those two questions have two very different answers. Let me talk about how I think it perhaps should be done. When I think about operational risk, I think of two kinds of very different things. At one end of the spectrum, I think of Nick Leeson taking down Barings Bank back in the mid-1990s. A rogue trader was allowed essentially to put on a bet so big that he took down his entire company. Obviously, that doesn't happen in too many organizations. It's not the only time that it has happened. There are some commercial firms that have actually tried to build databases of events like that. That's what I would call the low incidence/high severity kind of event, which drives the tail. If you are actually trying to set capital for operational risk, that's the kind of thing that you ultimately have to think about.

At the other end of the spectrum, you have things like a poor quality process that, for whatever reason, has a lot of errors, and people have to spend a lot of time fixing it. It doesn't matter really what process it is. If it's an internal financial process, that means it chews up a lot of time and energy for someone trying to figure out what the heck it is when it's wrong. If it's actually dealing with customers, the potential for damage is much higher. I think some of you may know that just last week at the World Canadian Bank, someone put a program into production without properly testing it and caused a huge problem—a very public problem—with its inability to process transactions properly. In the end, after the course of about a week, they were able to recover from all of it, but by that time the public relations damage was done. From what I understand, obviously the bank had processes for testing something. For whatever reason, it wasn't done, with the result being that they lost production. It put them behind, and the first attempt to

fix it made the problem worse, not better. By the time it was done, there was a week's worth of headlines. To me, that would be the information technology (IT) professional's nightmare. It can happen. You look at that and say, "That could happen to just about any organization."

You want to be doing things that prevent these large events from happening to you, whether it's Nick Leeson or a major IT service failure. We don't know what the quantification of that is for that institution, but I think it's pretty serious. Down at the lower level, you essentially just want to install a culture, which means that you don't have sloppy processes. I think that Bev has mentioned that any number of times. Perhaps the real challenge is creating what I would call the risk management culture, which means that people are inherently not sloppy about the way they go about doing things so that these things don't happen in the first place.

In terms of quantification, we have to set capital. The Basel method is labor-intensive, to say the least. We've looked at it. We're not going there right now, but again, to me it's not a question of "if." It's only a question of "when." It's not on our list of immediate priorities, but we will get there. We have to come up with methods for quantifying the big stuff, but the key line of defense on operational risk is having this risk management culture in place, which means you don't make those kinds of mistakes in the first place.

The big events drive the tail of the distribution, but the little stuff probably drives the mean. In terms of your return on investment, my guess is that there's probably a substantial investment there in making sure you don't make those high-incidence but low-severity events and in getting rid of those. There's probably a big payoff on those, but you won't do that without adopting the right culture.

**MR. TILLIS:** For operational risk, a lot of what we're looking at and saying is exactly down the same line. You can't quantify everything all the time. You're trying to take estimates of what will be and won't be important. One of the things that we've tried to do, besides getting the risk management profile out there and getting people to understand that, is putting in what I'll call "somewhat corrective" things. Our company is heavily developing Six Sigma processes and programs to help control some of these operational risks. There's no one panacea, but you need to look at all the different tools you can start using to reduce the mean, so to speak, so that you can shrink back where you're losing money consistently. You'll always have the rogue trader, the execution risk and the fact that something could go wrong. You try to protect for that, but you can't do as much on that as you can if you have a claims area that's wire-transferring funds to everybody every day instead of sending them a check in the mail. All those nickel-and-dime things add up quickly, and if you can eliminate some of those types of operational risks, things can be much better for the company overall. Getting the other tools that you can use to help reduce operational risk is a key factor of your risk culture.

**MR. MANISTRE:** This is the area in which I think the European banks seem to be

ahead of a lot of other people. If you want to ask who has actually already made a lot of headway there, my perception is that the European banks are further ahead certainly of insurance institutions in North America, but obviously some are better than others.

**MS. MARGOLIAN:** If I asked all of you, what percentage of your exposure do you think is operational risk—do you think it's 10 percent, 20 percent or 30 percent—I bet you'd all say a pretty low number relative to your financial exposures. The one area in which I'd say that would be different is in the area of black holes—market conduct, reputation, mutual fund practices and fiduciary practices. It's important to have operational controls. It is the job of the business managers in each operation to make sure they don't do stupid things and that they have the basic controls in place. But our largest operational risks involve some of these reputational risks—lawsuits, et cetera—and that is the area in which we're focusing from a global perspective in terms of enforcing codes of business conduct and ethics and having people sign off on these. New employees have to sign off. Officers have to sign off. We have just instituted a disclosure committee so that any kind of public disclosure is going through a committee to make sure that there are not inadvertent kinds of disclosures. Our focus on operational risk management right now is managing the big reputation-type risks.

One of the other things I want to do for the other side is to understand how much some of those small events have cost us, because we haven't tracked them. We hear about one or the other every so often, and I don't know if it's a few million dollars a year, \$20 million a year or what it is for our company. Without doing Basel-type quantifications, we're just trying to do some base data gathering on the smaller incidents.

**MR. MANISTRE:** Just to reiterate, I'd say within our own organization some of the biggest debates on operational risk are precisely on that issue. People coming from the banking background tend to focus on small stuff. The actuaries tend to say, "Well, wait a minute."

**MR. INGRAM:** Where's my tail?

**MR. MANISTRE:** Yes. I'll articulate a view here with which people can agree or disagree. This is probably one of the areas in which I think there is a legitimate difference between banking and insurance. In particular, the fact that we take on very long liabilities means that the act of putting on new business is a much riskier venture for an insurance company than it is for a bank. Obviously if we go out and sell a bad product and sell buckets of it, we have to live with that for a long time. It's not that banks can't make big mistakes. They can. As actuaries, one of the things we were trained to think about is putting on profitable new business and not making a mistake at that point. You can still blow that, and if you do, the consequences, I think, are much more drastic than perhaps sending a claim check to the wrong person (not that you should be sloppy about that). That tends to be



an area in which actuaries tend to see the world a bit differently from the people who, for example, are coming from more of a banking background.

**FROM THE FLOOR:** How would your companies manage and monitor the sales practices litigation exposure that's out there in terms of sales force?

**MS. MARGOLIAN:** First of all, we have very strict processes around approving literature that goes out there and approving sales practices and signed illustrations—all this kind of stuff that grew out of the vanishing premium kind of world back then. We have areas in each operating unit consisting of lawyers, et cetera, who scrutinize each piece of material that goes out. If your distribution channel is through third-party distributors, such as the Merrill Lynchs of the world, you have another line of defense because they have their own compliance functions to look for as a first line of defense. You're the second. Maybe later I'll talk about our product approval processes, but part of our process that occurs in my area to approve each product involves looking at the value to the customer, the marketing pitches and the sales materials to ensure that there's nothing we're putting out there that would not provide the right value to the customer or would cause problems in understanding or complexity. So there's a holistic approach to it, and the product risk managers and product managers are responsible for looping around.

**MR. TILLIS:** I would add that we have compliance areas in all the different distributions. We also try to follow up on the IMSA and things like that as they come through the industry. We try to communicate among all the different areas as much as we can. If something crosses our desks, we try to share it. That's one of the things with which I think the risk function can help. Last week, for example, some information came from the National Association of Securities Dealers (NASD) and SEC on suitability. They were taking their best practices and proposing how to make that official. You had to follow these in any variable product sales. Well, that's a risk. All of a sudden you have a lot more exposure to that third-party vendor or whoever sells for you.

From the risk perspective, you can communicate and you can make sure you have the right tools in place, but it gets back to what Bev said many times. The business unit manager has to follow up on it. You can tell them that this is the best way, but it's like giving a teenager the keys to the car. The teenager has a driver's license, but you can only take him or her so far.

**MS. MARGOLIAN:** I don't know if our operating units do that or not. We keep track of customer complaint issues. We get records of that. There may be. I just don't know.

**FROM THE FLOOR:** For example, suitability.

**MR. TILLIS:** I don't in our area, but I know that our head of the broker-dealer

groups can get those reports and has the ability to produce those reports if they're requested. They do have to develop answers because some of the questions, when I was going through them, made no sense. If you have a high-net-worth individual, is a variable annuity the right product? Yet they say it is? Okay. What sort of investment? So there are a lot of different risks that are out there, and you can't quantify it all unless you get a grid like we've talked about that's 10,000 by 10,000. But you can try and put the tools in place to get those answers.

**MS. MARGOLIAN:** Some of it you just have to leave to the operations. You have to assume that you have instilled that culture of risk management and internal controls and then know that they'll do that because that's part of daily life at the company.

**MR. MANISTRE:** The only thing I would add is that new business risk is one of the big items on my risk inventory for all the reasons that we've just been discussing. It won't appear in the typical Basel.

**MR. INGRAM:** The list of risks is different for insurance companies. Why don't we move on to a very related topic that Bev has mentioned a couple of times. How does the chief risk officer interact in the process of looking at new projects, new investment strategies and new products?

**MS. MARGOLIAN:** I'll first focus on our new product approval process. We have a very formal and very rigorous product approval process. We don't even call it pricing risk. We call it product risk because there's a lot more than financial risks in the product. There are administration risk, operational risks and reputation risks that go along with that. We have a group within the chief risk officer's operation, probably about three people, and a large part of their job is to have set product design and pricing standards and guidelines—corporate-wide, global standards.

We also have, as I said, a very formal new product or product change approval process. We have formal, designated pricing officers for every business unit. We probably have about 30 business units across the organization. They have specific responsibilities in carrying out and complying with the product design and pricing standards. They also must fill out a compliance self-assessment every year, and then we have internal audits of the pricing and product development function.

We also have an annual new-business planning process in which they have to produce all of the financial metrics and all of the risk assessments, both operational and financial, for their expected product sales portfolio for the next year. When we get that in, we do a bunch of assessments, and this is followed up by senior management reviews of the product portfolios, both from a strategic perspective and from a competitive-position perspective, as well as assessing the risk and returns. We're doing all this to ensure that all the product risks are understood and are being managed properly, consistently and appropriately across the organization.

The product design and pricing standards are developed by the chief risk officer group, and we have a product risk committee that consists of the chief risk officer, the appointed actuary and probably the five or six divisional CFOs of the company. Their role is to approve the pricing standards and product design standards. They look at emerging global product risks, and they make sure that these standards are implemented throughout the company and that issues are shared across globe.

We also have a global underwriting and claims committee that operates under the umbrella of the product risk committee. It brings together the chief underwriters from all of our businesses across the globe regularly to deal with things such as medical underwriting issues—really focused on individual insurance—retention management, global retention—checking all this kind of stuff. We deal with that as well.

Some of the topics that are covered in our pricing standards and guidelines could be a database of maybe 100 pages or something. It's a very extensive set of standards and guidelines. It covers the roles and responsibilities globally among corporate, division, business unit, pricing officers, general managers (GMs) and everything with respect to product risk and product approval. It discusses the pricing process required and the approvals required. The approvals required include things like the pricing officer, the CFO, the business unit GM, corporate, et cetera. There's a whole matrix of standards around the use of reinsurance and how that's built into pricing, standards around setting assumptions and profitability targets, and standards for software. We have standardized software we use across the globe and set standards for documentation of all of the financial metrics, risk assessments and readiness with respect to administration, valuation, marketing materials and sales practices before the products are approved.

We designate pricing officers, and their responsibility is to ensure that when a product is designed and before it's launched, it complies with all of these pricing standards and receives all of the product approvals. The people who are appointed as pricing officers must be approved by the chief risk officer and the appointed actuary of the company, because that's our first line of control. We must make sure of the competency of these individuals. These officers also participate in regular global networking and educational forums. All of the pricing officers worldwide meet two or three times a year.

We have what we call a "gated" product approval process. Every product change, whether tiny or big, is communicated at the earliest stage to the business management as well as to the product risk management group. I'm informed of every single change, whether it's a simple commission change or not. We instituted this two years ago, and there haven't been a lot of complaints because we've done it in such a way that in 90 percent of the cases, we say, "Fine, go ahead." They inform us through an e-mail or something, so we know what is happening. We're not surprised by anything. In 10 percent of the cases we'll say, "You know what? We're not delegating the product approval back to you because we're concerned

about it." We look more closely at variable annuities with guarantees and universal life (UL) with secondary guarantees. There are some hot buttons and hot issues or certain territories. They're not as far along or as capable, so we choose when to delegate and when not to delegate. Our goal is to get back to them within a week so we don't slow up the product approval process. Then we keep our head in it when we need to.

We've found that this process has worked very well. When we asked for feedback from the divisions about this after about a year, I was thinking, "Oh, my. We'll get such terrible responses." But for the most part, they said this has been a good process. They already had pricing and product design processes that these fit into. They just have to inform us at certain stages along the way, and it stopped us from saying at the back end, "Corporate doesn't like this," and them not knowing about it until the week before they were to launch the product.

It has helped with early communication and with improving the standards of pricing across the globe. It also has helped where it's necessary—such as a variable annuity operation—to work together interactively to get the risk profile and the attractiveness of the product to a point that it's a competitive product and we're comfortable with the risk. It has been a process that I think has worked well. It's a rigorous process. That's the product process. The same kind of thing happens when we look at investment strategies or ALM strategies. That involves slightly different players and slightly different processes, but that same kind of rigor is involved, down to the corporate approvals.

**MR. INGRAM:** John, do you have a comment on that process?

**MR. MANISTRE:** Setting standards for things such as reinsurance and pricing are definitely part of my responsibility. Obviously that has to make sense in the context of where you're doing business. Standards that make sense for institutional business will be different from standards that make sense for retail business. Different standards will apply for Canadian business or U.S. business, et cetera, so all of that must be worked out. We do have some of that. I would say we're probably not as highly developed as the structure that Bev described, but essentially that structure exists as well. That definitely is part of the chief risk officer's function.

**MR. TILLIS:** I'd like to say we're near some of this, but we're not quite that far along. We lay out some projection-setting guidelines, and we control the range a little in the capital needs and the product needs. We tell them that this is a sort of factor we can apply for this internal calculation. For the return on required capital, we set those factors after looking at the risks of the various products. We're not as heavily involved up front or in some of the decision-making for the product design or the processes, but before they finalize them, we always get a chance to look at them. We may say, "Here's something else. How much extra capital do we need if we add in a return-of-premium benefit or this enhanced death benefit? How much

extra capital is required for this product to go on the street?"

**MR. INGRAM:** We've gotten this far in this session, which is most of the way through, and we haven't had much technical discussion at all. I think that's key for everybody to realize. Underlying a lot of this is a lot of the technical rigor that we all know and love, but the real front line of the work for the chief risk officer is not there. Let me ask one technical question just so that everybody doesn't go away completely dissatisfied. Talk about your models of risk. I can think of three different things you could focus on there. Maybe there are more than three, but you look at values that are based on market values, on financial statement values—to the extent that they're different than market values—or on cash-flow models. What's the underlying model for your risk calculation? John?

**MR. MANISTRE:** The answer is "all of the above." Fundamentally, my particular organization is a public company. It publishes what I would call not quite U.S. GAAP, but something you may as well think of as being U.S. GAAP financials in the public domain. It publishes embedded value, as do a number of others. The first thing you ask of it when thinking about a given risk is, how does it affect either of those two metrics? The second thing is a little bit more local to my backyard. All of the entities operate through a number of different legal entities, most of which are subject to U. S. statutory accounting, which obviously drives the capital requirements.

The bulk of the organization focuses around three metrics, which is to say when you think about a risk you want to understand three things. What could it do to earnings? Depending on the product, it could be a short-term issue—for example, if it's a Financial Accounting Standard (FAS) 60 product—or it could be, for another example, mortality. If you plan to change your mortality assumption on a FAS 60 product, that has relatively little earnings impact. It hits your embedded value right away because the embedded value calculation capitalizes the whole present value of the impact of the assumption change. It would have no impact on capital because it doesn't affect the statutory balance sheet. Those are the three primary metrics, and depending on what the product is and how it's accounted for, you can wind up with all kinds of interesting mixes of things that can be bad for one or good for one and bad for the other.

Fundamentally, when we report risk, we're essentially trying to understand and quantify the impact on those three primary metrics. I'll call them financial reporting metrics. We also do look right now at other metrics. On equity risk, for example, we try to calculate our aggregate duration exposure. If you were to go out and hedge all of your equity exposures today, how big a futures position would it take to hedge all of that fully? We found that to be an interesting metric because you can find equity exposure buried in all kinds of little places in your balance sheet, most of which are on the liability side. That's an example of another metric that doesn't get as much focus because that's not a published financial statement kind of metric.

When we talk about operational risk, for example, the key thing people like to talk about in the banking industry is key risk indicators. We're at the very beginning stages of trying to develop what they should be. Those are examples of quantitative things that you can look at. I would say the one thing we haven't done yet is go to what I call a full-blown economic capital model but, again, that's in the cards. Those are the metrics we look at.

**MR. TILLIS:** Probably the metrics we look at vary across some of the different risks. One of the key ones we always do look at is the earnings in the next two years. What impact does this risk have on our earnings? In our area, we also like to look at the embedded value because that can help with some of those risks that are farther out. If you're looking at a lapse guarantee, a UL or a XXX-type reserve, that doesn't necessarily have a lot of risk, it doesn't seem, in the next two years. Fifteen years from now, you could be in big trouble. We like to look at both of those to get the long- and short-range perspective, so that people don't kid themselves that there's no risk involved. Then, as John was saying, we tailor it to the different types of risk. We'll look at liquidity risk. We'll look sometimes at duration risk. It just depends on the parameters and the types of product or operational risk we're looking at. But we definitely look at earnings, and we like to look at the embedded value.

**MS. MARGOLIAN:** We look at very similar things. We do try to look at the tail risk exposure, the economic exposure. The CGAAP earnings impact and embedded value earnings impact are very similar, if we're not worrying about U.S. GAAP, which we do. But with CGAAP being our primary reporting basis, the impact on earnings and embedded value, economic value, are all very similar.

**MR. MANISTRE:** I agree. That makes your life somewhat simpler.

**MR. INGRAM:** That ends the questions I brought. What's the best book you've ever read on risk management?

**MR. TILLIS:** I thought *Who Moved My Cheese?* was kind of interesting, applying it to risk management. You constantly must be looking at what is the environment? What's going on? It's very light. It's not heavy into numbers, but it suggests that you think about what you're trying to do, not just what some formula gives you as a result.

**MR. MANISTRE:** In terms of technical books, the one I like best is Christopher Matten's book, *Managing Bank Capital*. I think it's a very well written book, for one thing, and whether or not you agree with his perspective, you'd certainly get a lot from reading that book.

Having said that, I've looked at probably just about every book on the subject that has come out—reams of them now. You get to the point where you think, "I've seen that. That doesn't help me do what I'm trying to do. I've moved past the point." I

don't look at the books anymore. I understand what I'm trying to do. I need help in doing it.

**FROM THE FLOOR:** Since our time is short, rather than talk about things that work, what things should we look out for in trying to implement an enterprise risk management culture into a company? Where are the pitfalls? What are some mistakes that we would make?

**MS. MARGOLIAN:** Trying to change too much too fast can be a problem. It should be evolutionary, not revolutionary, because there are such limited resources for everyone at the company. Walk before you run. Every company has different needs and different problems, and therefore, the priorities and the hot buttons should be different. You have to focus on one or two things that are most important for your company—where you think you can make the most impact. If you try to do too much too fast or make too much change, you'll get rebellion, and it won't work.

**MR. TILLIS:** One of the problems that we saw initially is the witch-hunt mentality, and that's something that's just cultural. It's tough to get around some people when you try talking about what risk is in their business or their line. They start thinking, "Are you picking on me? What are you trying to uncover? Is there something there?" That's not what we're trying to do. We're trying to help people and communicate and lay things out in an open way. There will always be some people who feel very protective about their process and their view of the world. It's hard to make some people understand that's not what you're doing.

**MR. INGRAM:** It's like the old joke—I'm from the federal government, and I'm here to help you.

**MR. TILLIS:** Yes.

**MR. MANISTRE:** The only thing I would add to that is that in my own particular organization I find myself competing with various other similar corporate initiatives, such as, for example, Sarbanes-Oxley, and my organization also has to be getting ready for international accounting. Those are examples of two very pervasive things that are all essentially coming down from the corporate area, which is saying, "We have to do this." Sooner or later, there's somebody somewhere in hinterland who is on the front line who has all the models and tools. By and large it's the same guy you're going to every time. You have to be sensitive to the fact that you need your slice of that professional's time. But he has to get his quarterly financials done. He has to get his budget done. He has to get his cash-flow testing done. He has to comply with Sarbanes-Oxley. He has to start building new tools for international accounting. Now, here's this turkey coming along and saying, "I want blah, blah, blah for risk management." You have to come at it with a story that this is not just another compliance exercise; this is something that you want to do for you, not for me.

**MR. INGRAM:** We'll do one last question.

**MS. VALENTINA ISAKINA:** My question actually builds directly on your comment. There is a lot of discussion right now in the risk management community about the place of enterprise risk management on the company's strategy map. We've heard a lot about risk mitigation at this session, but this question is more about the value that enterprise risk management is adding to a company. How do you show that value? Is it possible to identify those strategic opportunities and explore those opportunities through enterprise risk management rather than just mitigating the risks that are in existence? How do you take that next step and help the senior management of the company make value-added strategic decisions for the shareholders based on the enterprise risk management that's in place?

**MS. MARGOLIAN:** I don't know what enterprise risk management versus risk management is. It's motherhood. But with proper risk management and proper assessment of risk, you'll hopefully make the right decision about where to deploy your capital. If you can do things, like ourselves, with understanding the risks better and assessing risk on an economic basis, you may be making different choices about what businesses or products to invest in or how to design products to be more competitive because maybe you view things a little bit differently. On the other side, maybe it allows you to avoid some of the pitfalls that maybe others don't have. I think it's in the area of trying to get the optimal capital deployment in the end, but it can help.

I've had discussions about how you performance measure the enterprise risk management group. We don't even try. We don't try to do it quantitatively. Basically we try to say, "Are we making progress? Does senior management think we're managing risk better? Are we making better decisions? Are the businesses being helped by this?" It's a qualitative assessment. I'm still here, so that's a good sign. It's hard to value it from a purely quantitative perspective, and I don't know if it's worth even trying.

**MR. TILLIS:** An analogy I'd throw out is one I've used before. If I look at the enterprise risk management process, how is it any different than a sales report? What value does a sales report give you? It shows you what you've done, but it also shows you where things are going. Hopefully, your enterprise risk management perspectives will do the same. They'll show you what risks you've identified and what potential problems might be down the road, but it won't always give you the right answer. It's just something to help you along the way.

**MR. MANISTRE:** An enterprise risk management process can do two things. It can set standards, and it can also facilitate the communication of best practices across the organization. A multidivisional organization means you have 15 actuarial shops, 15 IT shops, 15 accounting shops and so on. If you sat back and said, "I'll give that one an A. That one is a B," then the ideal would be to sit back and say, "They're all As." I'll bet you that no matter what organization you look at, they aren't all As. In



any professional service, whether it's IT, actuarial, accounting or what have you, it could be a good shop, or it might not be. Helping the management of the division that perhaps has a C rather than an A and getting it to a B is adding value.

**MR. INGRAM:** That's what risk management does. It gives you the ability to look around the table and figure out whether or not you want to be sitting at that game.