

# 2004 Valuation Actuary Symposium \*

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## Session 4 OF Is Your Company Ready for Sarbanes-Oxley?

**Moderator:** Judy Strachan

**Panelists:** Patrick D. Studley  
Darryl G. Wagner  
David Lawrence White, Jr.

*Summary: Section 404 of the Sarbanes-Oxley Act of 2002 requires management to report on and provide assertions to its auditors on the effectiveness of the company's internal control structures and procedures. This session discusses the links among shareholder value, investor trust and Sarbanes-Oxley compliance. Approaches to designing, documenting and implementing sustainable control structures as required by Sarbanes-Oxley will be explored. Uses of these control systems to monitor, sustain and improve performance are discussed.*

**MS. JUDY STRACHAN:** This is an open forum, so we're going to try and keep our comments relatively brief. We're hoping for a lively discussion at the end of the presentation. Please hold your questions until after the last speaker, and then, like I said, we hope to have a lively discussion.

We have three speakers. Darryl Wagner is a principal with Deloitte Consulting based in Hartford, and he leads the Deloitte U.S. life actuarial practice. He has over 19 years of experience in the life and health actuarial field, including involvement in statutory and GAAP valuation and financial reporting, mergers and acquisitions, demutualizations and GAAP conversions. He's a frequent speaker at industry functions and has participated in AICPA deliberations on the development of GAAP guidance regarding demutualization and long-duration contracts. Darryl will be doing an overview.

David White is a director in KPMG's Atlanta office. He has a 22-year career in the insurance industry, including experience with two life insurance companies as an

actuary performing product development and financial reporting functions. For the last 10 years he has been a consulting actuary working on due diligence and transaction-related assignments, GAAP and statutory financial reporting, asset modeling and cash-flow testing.

Pat Studley is a vice president and actuary with Metropolitan Life. He has 27 years of experience in the life and annuity business, with 12 years in financial reporting. He is the appointed actuary for MetLife and directly supervises most of the reserve valuation of Met and its affiliates. He led the actuarial team in 2003 that participated in the implementation of Sarbanes-Oxley Section 404.

**MR. DAVID LAWRENCE WHITE, JR.:** I'm going to provide a brief overview of the Sarbanes-Oxley Section 404 and the Auditing Standard No. 2, from the Public Company Accounting Oversight Board (PCAOB). I will also discuss some brief comments about an NAIC overview.

There are four primary components of management's annual report on internal control over financial reporting. First, it must state management's responsibility for establishing and maintaining adequate internal control over financial reporting. The second is it must identify the control framework used by management to evaluate the internal controls. Third, it must contain management's assessment, as of the year-end, of the effectiveness of the controls, including a statement whether or not controls are effective. Fourth, it must contain a statement that the independent auditor has issued a report on management's assessment of the controls.

The independent auditor must attest to and give a report on the assessment in accordance with standards that are issued or adopted by the PCAOB. The most relevant standard that we would be discussing today is Standard No. 2, the audit of internal control over financial reporting. It was issued earlier this year. The current effective dates are for issuers other than foreign private issuers. If you meet the definition of an accelerated filer, which would be most U.S.-domiciled companies, you would be required to comply for fiscal years ending on or after November 15, 2004. All other issuers, including the small business and foreign private issuers, will be required to comply with the new rules for fiscal years ending on or after July 15, 2005. There's a bit of a delay for some, but for most of us it would be effective as of the end of this year.

How many people are currently working on the Sarbanes-Oxley implementations with your company? Virtually everybody. Just in terms of looking at the implementation dates, you should be (hopefully) quite far along if you have to report by the end of this year.

The final rules don't specify a methodology to be followed or procedures to be performed by management, but there are a couple of points worth noting. First of all, just inquiry is not sufficient. Second, you need to be able to have collected evidential matter to provide reasonable support for your evaluation as to whether a

particular control is designed to prevent or detect material misstatements or omissions, a conclusion that the tests were adequately planned and performed and a determination that the results were appropriately considered. Along with documenting processes and controls and the tests of controls, you need to have everything organized in a fashion that the management statements can be adequately supported.

While it doesn't give a specific framework to use, most insurance companies that I'm aware of are using the Committee of Sponsoring Organizations (COSO) framework. It covers the control environment, which is kind of the underlying basis. The control environment sets the tone of the organization influencing the control consciousness of its people. The second major area is risk assessment. Every entity faces a variety of risks that must be assessed both at the entity level and the activity level. Control activities are policies and procedures that are used to ensure that management directives are carried out. It must include information and communication to support the other components. Finally, there must be a strategy to monitor the internal control systems, which would help assess the quality of the system's performance over time.

With respect to management's assessment process, management must accept responsibility for the effectiveness of internal control, evaluate effectiveness using suitable criteria, support this evaluation with sufficient evidence (including documentation) and present a written assessment regarding the effectiveness of internal control. Management's failure to support assessment results would result in a disclaimer of opinion by the external auditing firm. Inadequate documentation by management is a deficiency in and of itself in the internal controls. Again, the external auditing firms are guided by the PCAOB Auditing Standard No. 2.

If there are outside consultants that are used or the internal audit group is used, the external auditing firm may not use the work of others in testing controls relative to the control environment, which would include fraud programs and controls. In performing walk-throughs, the conceptual framework for evaluating the nature of controls focuses on the competence and objectivity of the person performing it. The auditor's own work must provide the principal evidence for the audit opinion. While the audit firm would be looking to what management has done because it needs to see that, the audit firm's own tests of controls would be its evidence. The auditor uses his or her own judgment to determine the interaction and appropriate extent of re-performance. When a company uses self-assessment as a test of operating effectiveness, it will be important to note the individuals performing the tests are not considered objective.

With respect to some recent activity on the NAIC front, right now the auditing standards, of course, only relate to companies that are SEC registrants or reporting entities. There are discussions at the NAIC level with proposed changes to the Model Audit Rule requiring management to assess and to annually assert to the effectiveness of the company's internal control over financial reporting in a similar

fashion as the way that is considered for the SEC companies. The SEC companies document, assess and monitor internal controls over the statutory financial reporting. I think the current proposal is for companies with \$25 million or more in premium.

Although I'm not willing to project with a lot of confidence the outcome of the NAIC discussions, as it stands right now this may become effective as of the 2006 year-end. With the same disclaimer, the proposed level of compliance is at the holding company level. So, it would not be going down to multiple statutory entities. It will also, though, require a report by the external auditor on management's assessments.

I have a couple of comments on some actuarial considerations. If you look at the evaluation process, it actually follows a very similar process in terms of the annual requirements, as if you were doing it for the first time. There are various steps. They are essentially: plan and scope the evaluation, document or update your documents of controls, evaluate the design and operating effectiveness, identify and correct deficiencies, prepare a written assertion on the effectiveness of the internal control over financial reporting and, finally, prepare for the independent audit of the internal control.

There's a lot of discussion that's going on or that has gone on in companies in relation to the project scoping. The criteria that you would use would clearly be criteria of materiality or volume of transactions, the potential impact of fraud or misstatement on operations, specific high-risk areas with regard to financial or operational, judgments and assessments or estimates that would be in particular affecting actuarial balances and then product mix. The product mix includes the size and quality of controls if you have various locations doing business. All of the principal business units should be included in the project scope, just from a qualitative concern standpoint.

Significant areas of risk within life companies where control failure could cause misstatements clearly include the policy reserve balance, because it includes calculations with assumptions, estimates, interpretations and modeling—all of which are areas of judgment. That would be one critical area. Another critical area would be the deferred acquisition cost (DAC) and value of business acquired (VOBA) assets, particularly if you've got a great deal of volatility underlying your calculations. In some cases you may have issues with claim reserves. The processes and the controls vary quite significantly among companies with each of these areas, but they should be given a great deal of consideration in setting up the internal controls.

I will give you an example of the actuarial process in sub-processes. You might have, for example, the overall business process defined as the actuarial valuation. Sub-processes would include the reserve valuations, the DAC and VOBA and unearned revenue liability valuations, assumption-setting, loss recognition testing,

reinsurance (either ceded or assumed), and then, finally, a review and sign-off of the valuation results by the chief actuary or the corporate actuary. Those are virtually always included in scoping.

What we've seen in terms of diversity company by company would be to what extent experience studies are included in the scope. They obviously go into the assumption-setting process, but whether they're considered a separate process may vary by company. Tax reserving is another issue. Pricing, product development and underwriting vary quite a bit, but a lot of those are not considered in scope from a number of companies. Finally, embedded value might be in scope to the extent that it affects your GAAP valuation process.

**MR. DARRYL G. WAGNER:** I'm going to talk along the lines of, what does this mean to us as actuaries? We've got all these requirements. Sarbanes-Oxley is new to us. David talked to us about how you scope out and decide what's involved in the Sarbanes-Oxley process, which is an important discussion because Sarbanes-Oxley is not meant to deal with all types of risk. It's kind of an enterprise risk management act, if you will, but it's focused on financial reporting risk. When you're talking about what Sarbanes-Oxley affects, it's important to keep in mind that the end game is, does it create a risk in terms of what goes into the financial statements that I'm presenting ultimately to the public? That's the acid test we work against.

I've developed a high-level checklist for what's involved in a Sarbanes-Oxley implementation. The first thing to check is the scope of the organization and what parts of the financial statements are affected. The next aspects to look at are risk assessment and control assessment. We're going to talk about that. Most of these discussions focus on controls, but obviously the reason we have controls is because there are risks that need controlling. Having determined the scope, the next step is to take a look at what risks I've got to deal with. Do I have the right controls in place to deal with that? Comprising a lot of the work as a practical matter on these implementations are getting and documenting evidence. You need to make sure that there's evidence around the control but also document around what that control is and what that evidence is. The final step is self-assessment, which I generally think of as testing. Have you got a way to test and be able to demonstrate that those controls work?

It sounds like most of the people in attendance are working on an implementation for this year. How many of you are into the testing process? Some of you are in the testing process, but certainly not all. We're going to talk about these items on the checklist. My experience has been that this is a fairly sequential path. Obviously it doesn't make sense to do the testing until you've established the controls. You do do some iterating, though, as you may get to a point, realize something is missing and go back to the top.

There is a high-level timeline for what's involved in a Sarbanes implementation. I won't go through it, but you can break it roughly into three stages. The first stage is that scoping exercise. Ask yourself, "What's our game plan?" Look at starter control sets, which refers to the format you are going to use to document the controls and so on. The second stage is where most of the heavy lifting is taking place, in terms of fleshing out what those controls are and documenting them. The second stage includes assessing gaps and remediating. That's an important point to keep in mind. This is not just to be an exercise in documenting the controls that you already have in place, but is really about the harder thinking. Sarbanes-Oxley is saying, what's not there that should be there? Where are my controls not adequate or where am I not controlling something I should? Remediate means to remediate that. Maybe I develop a new control, change an existing control or what have you. That's an important thing to keep in mind.

The third stage is developing a sustainable process, which I would say is going to begin when people actually issue reports at the end of this year. This is meant to be an annual process that will be with us going forward, so developing a sustainable process is important. My experience would be that most companies at this point are in some part of the second stage, hopefully looking to get to that assertion in the third stage by some time early in 2005, but it does vary. Smaller companies that I've worked with are closer to the first stage. Larger companies are pretty deep into the second stage. There are certainly differing levels of progress at this point.

Look at insurance and the amount of judgment that goes into the quantification of reserves and things like that. David talked about things like estimates. Estimates tend to be a red flag for accountants when they think about Sarbanes-Oxley. If you think about the actuarial world, there are bells and whistles going off all over the place when you look at actuarial functions. I think, because of that, insurance companies have found that they need to involve people like actuaries and underwriters in this process, perhaps even more than we've been involved in disclosure and control-type processes in the past. That creates more work for everybody, but a couple of good things come out of that. It gives actuaries more of a seat at the financial table, if you will, around some of these things, which I think generally is a positive. The other thing is that it will give others, the non-actuaries in the company, a better view or a better understanding of what we do as actuaries. The more dialogue we have around this, the better for all involved. That might be one of the things we debate later, but we'll see.

What are actuarial controls? I found that there is a bit of a language barrier when you talk about "controls." When we initially started talking about Sarbanes-Oxley and talked to a group of actuaries, they said we didn't have any controls. I interpret that to mean that we don't have anything that we've traditionally called a "control" the way accountants use the word "control." The verbiage for that whole internal control framework historically has been used more for some of the accounting-type controls. What we've found is that it's not that actuaries don't have controls in their work, it's that they maybe haven't referred to them that way. One of the first

things that you have to do is get over that language barrier. By sitting down and talking about the verbiage, that in and of itself creates some healthy dialogue. That helps the actuary and non-actuarial parts of this understand each other better.

I have found that there are four broad categories for most any high-level actuarial control structure. As David said, it might be reserving or it might be DAC. They tend to form a pretty good framework. You could utilize different processes. You may have more emphasis on one of these categories than another, but I think they're all important.

The first category is methods and assumptions. To me this is the softer end of the spectrum. Before I get a computer involved or anything else, how do I know that I've got the right guidance being followed, that I've got assumptions that make sense for the kind of product that I'm valuing or that they've been set the right way? We'll come back to talking about how you deal with that, but that is important. If you want to talk about risks, in many ways the methods and assumptions have the most judgment involved of any of these four categories, which is not to say we don't trust actuaries to do the right thing, but if we really want to think in terms of risk and control, then we've got to include that.

The next category is data integrity. There are obviously a lot of data that we rely on for the different processes. It's important that that data be accurate. That obviously typically involves a lot of other people, not just those in a kind of "actuarial organization." So that's important.

The third category is accuracy of the calculations. Data integrity and accuracy of calculations typically have been well-addressed and well-controlled. When you talk about historical controls, accuracy of the calculations is something that has been recognized for a while.

The final category is, ultimately, disclosure. I might have done the right calculations, but did that accurately calculated number find its way into the statement the way it should? Is it in the right place? Does it have the right adjustments? Is it just reasonable at a high level? When I'm thinking about a control this would be my top-down view. I may have a bunch of detailed steps, but have I covered these broad categories sufficiently for whatever process I'm dealing with?

One of the challenges to actuaries is the balance of hard and soft risks. An example of the hard risk is when I'm using an age in the calculation. Is that age right or wrong? It is a very quantitative thing. Another example would be, did I get every policy valued? That's a hard risk. The soft risks would be the things around setting the assumptions. Have I recognized and taken into account every new piece of GAAP literature that applies to what I'm doing? Did I choose an assumption in the way that complies with that? The soft risks are greater. That's why we get paid the big bucks, so to speak. That's what we do—we make those judgments. I think

that's a fourth of our job. Again, this is a chance for us to demonstrate that and have other people understand it. A question that we may need to come back to is, how do you control professional judgment? How do you put a control around that? I'll just pose that question now. We'll come back to it. I'm hoping somebody might be interested in talking about that later.

There are a few practical considerations. I mentioned top-down versus bottom-up before. One of the goals here is to make sure you've got the right controls. I think companies tend to start the process from either of these directions. With bottom-up they are saying, "I'm going to document what we do now, catalogue that and then call that out and make sure I've got the right things," versus a top-down approach which is to say, "What should we be doing? If I take those four categories, what are the controls we should have?" There are pluses and minuses to both of those. Either way you need to meet in the middle to come up with a prioritized list of the key controls, but there are two ways of getting that.

Corporate actuarial versus lines of business may be important, particularly in a larger company with multiple lines. Typically both the lines and corporate will have some specific roles around controls and will have some of their own controls for which they're responsible. It's something to keep in mind. As far as practical versus comprehensive prioritization, say you get a list of 10,000 controls. It's not going to be very practical because one of the things you're committing to under Sarbanes-Oxley is that each of your key controls will be executed each quarter and that you can kind of check off the fact that they've taken place. If you get too many, that becomes impractical. However, you need to have enough to cover the risks. There is a balancing act there, but typically it involves some prioritization.

It's important that each control have a process owner, ideally one person, so you can do that accountability of the controls. You would not want to check with 100 people to make sure that the controls were taken care of. Have one person that says "yes" or "no."

Granularity goes to, how many controls do I need? Do I need to have a separate control? If I do DAC for five different products, do I need to have a separate control five different times? The answer is maybe. Of course you knew that. But these are some of the things to consider. Also consider lines of business, product, owner and systems. By that I mean if the process is similar enough, if it involves the same system, involves the same people and same type of processes, then it probably makes sense to combine that. If you're dealing with two systems and you've got to do different things for those different systems, then that may suggest that you need a separate control. You need to look at what's happening in the processes and where the similarities and differences are.

As I mentioned before, particularly around things like data, you're probably taking a lot of data out of administrative systems to do some of these calculations. Somebody needs to make sure that all those data are accurate. It's quite likely that

that somebody is going to be in the administrative or even an IT area, and that's fine. Interaction with these areas is important. The onus is on us, as users of that information, to make sure that that's happening. That doesn't mean *we* need to do it, but it needs to get done, and you probably want to at least be reviewing what has been done in that area to make sure there's nothing falling between the cracks.

I have just a couple of thoughts on documentation. The first one is really just journalism. Who? What? Why? Where? When? In terms of the control, those questions need to be answered. Another thing to consider is this concept of key versus secondary controls. By the time you get to testing, you're going to have determined which of the controls are key. Limit your list. You just want to cover who, how often and what happens with that control.

In terms of characteristics, certainly the goal here would be to leverage from existing documentation. Again, I think you'll find most of these controls are in place already, and you probably have some level of documentation. It might be someone's job description. It might be the documentation of a process. That's fine to leverage it, but just saying you've got that in somebody's job description is probably not enough. You'll want to try to have that identifiable and in a central place and have some consistent format. Again, there's a balancing act here between saving work and making sure you've got the right level. One of the roles of the external auditor, I think, will be to serve as a check and balance on this process. As the person who's going to sign off on this from the outside, we'll typically get some guidance on that.

There are a couple of things on testing that I would like to discuss. We talked about significant control. Again I'm using this key controls concept. Once those are identified, you need to have a test plan and assign responsibility for testing. Testing becomes almost a whole separate process once you've figured out what the controls are. It should go without saying, but the nature of the test should reflect the nature of the risk control. The types of official versions of testing that we see are referred to as inquiry, inspection, re-performance and walk-through.

Inquiry is just asking somebody, "Did you do this? How did you do it? How did it turn out?" Inquiry includes those kinds of things. It is very basic. That's probably something you need to do on every control. Inspection is being able to look at what happened and look at the result of it. Re-performance involves going further and saying, "I'm going to redo some of that control. I have to make sure that I get a consistent result and that I don't reach any different decisions than the person who originally did it." A walk-through is a little bit of a hybrid of some of the above. You take a process and walk through the whole thing while including some of the controls that were done. There's a little fuzziness in that one versus the other ones, but those are generally the Sarbanes-speak descriptions of tests. One of the challenges we have as actuaries is converting these into what this means for an actuarial process. Types of testing might be systems-based, or might be as simple as reviewing documentation, doing recalculations or sometimes a what-if scenario.

What if somebody had wanted to make a change right at the end of the quarterly process? Talk about those kinds of things.

Sometimes there's confusion around testing. When we talk about testing, what we're testing is the control, not the process itself. You've got a process. You've got a control which is really a test on that process. You've got a test of the control. So it's a test of a test. The test of the control may be re-performing something that is re-performing the original process. Then your external auditor is going to come along and perhaps re-perform that. You do get into some layers, and some of the terminology can get confusing. Here are a couple of examples. Risk reserve assumptions don't reflect policy characteristics. The control may be a quarterly sign-off on that. Maybe the way I test that is looking at the minutes of that meeting, for example. Just keep in mind that when you say "test," it's a test of the control.

In terms of timing, it's more of a challenge ever year. The SEC has been decreasing the amount of time that companies have for filing. Not only is that happening, but we've also got to do more than we had to do before in terms of signing off Sarbanes-Oxley. It's obviously going to be a tough year-end to get through all this because of that advanced planning around things like testing. If you haven't already started with these testing plans, I would absolutely recommend that you do that as soon as possible. You don't want to be dealing with that in December or January with everything else on the plate.

**MR. PATRICK D. STUDLEY:** MetLife was not the only company that implemented Sarbanes-Oxley 404 in 2003, but we're one of the few. We're probably one of the biggest companies that did. We did implement Sarbanes-Oxley 404 in 2003, and we went through all four of the things that David mentioned. We even got the opinion from our external auditor that they agreed with management's assertion that our internal control environment was proper, that everything was fine and that it was operating effectively.

Some of the things I would like to discuss are going to repeat a lot of what we've already heard. They put it the way auditors say these things. I'll use our own terminology. You'll start to see that I'm describing things a little differently than the way they did. That shows the language barrier that some of us have had to go through. I've been dealing with auditors for a long time; our auditor comes in every year. They have to audit our financials. They get big files of our reserve files and test calculations and all those things. But this was dealing with auditors in a way we've never done before. We've had a big learning experience because I never heard the term "re-performance," "walk-through" or terms like that until we started doing Sarbanes-Oxley, even though we've had controls in place for years. Like Darryl said, maybe we didn't even know that that's what they were called.

Here's some information about MetLife, just to give you an idea of our size and where we're located. One of our affiliates is Metropolitan Life Insurance Company.

That's probably 98 percent of the whole thing. We have a lot of other affiliates from acquisitions and mergers with New England Mutual and General American and some of the various affiliates they have. So it all rolls up. We demutualized in 2000, and so the holding company is MetLife, Inc.. That's the entity that this is about. I'll be interested in the discussion about statutory because from my point of view, this whole thing applies to the SEC entity, which is MetLife, Inc.. Our individual and institutional businesses are about equal in size, and everything else (auto and home, reinsurance, international) is relatively small.

I'd like to talk about how we managed the project last year and a I'll talk a little bit about this year. First we have a steering committee. It consists of senior financial management, officers of all the different kinds of financial persuasions. We also have representatives of our external consultant and our external auditors. The steering committee meets about two times per month and it gives high-level direction to the project. It continues to operate this year. The project management office (PMO) is the group of people who are organizing the day-to-day work. They're the ones who started this early last year and got everybody else involved in the July 2003 time frame. They are all from the accounting profession. They're the ones who run the show. They manage the deadlines. They keep the project on track. They make frequent presentations to executive management of the company and to the audit committee of our board of directors.

The work of documenting the processes and risks and controls was carried out by about 10 teams from the major lines of business and in corporate areas. The corporate teams include actuarial, investments, tax, etcetera. The IT department is a special team because they dovetail with all of the other teams. I was the team leader for the actuarial team. In 2003 it was the teams who did the basic implementation. The team would have the team leader. It would have various subject matter experts. It would have representatives of internal and external auditing and our outside advisor. I imagine any large firm has to have an outside advisor and a lot of outside help.

The team leaders dedicated about 50 percent to 100 percent of their time from July through December 2003. Some of the other team members also dedicated 100 percent. The process owners were involved, but there wasn't really time to get them to feel ownership of Sarbanes-Oxley. They had to run the processes all year long. To pull them off and do a lot of this wasn't feasible. We brought in all these outsiders and sat down with them to do the documentation. Our goal for this year is to get that to change and move in the direction of changing that so that it's more a matter of the process owners themselves feeling like this is their product. We're seeing movement in that direction. It didn't just flip over in 2004, though.

In 2004, the teams that are still functioning are trying to be more responsible for oversight, coordinating, collecting materials, etcetera and trying to get the process owners to take more ownership. The teams are a little smaller, and the process owners are more involved, but we're still using a lot of outside help. Also in 2004

we've put into place an electronic Sarbanes-Oxley system that collects all the documentation. I don't know if some of you have looked at some of these for documentation. They should cover a substantial portion of significant financial statement line items. It's no small task to validate the portion that documented processes contribute to the total value in any one financial statement line. We broke each process down into smaller activities. For each activity we listed all of the things that we could think of that could go wrong. For each risk we needed to show what control either prevents that risk from occurring or detects that the risk has occurred. This generated a very long list of risks and controls. I don't know the number offhand, but if somebody said 10,000 it wouldn't surprise me if it was on that order. We've probably been able to get it down. This is not actuarial; I'm talking about the whole company. It's probably somewhere between 5,000 and 10,000 if you go to all the different teams and all the different processes. I'll get in a little more detail on the actuarial side in a moment.

The next step is to identify which of these controls are the key controls. This is where we're putting our effort in 2004. This is probably the most difficult for us. It's the most subjective. You go to one line of business that had 700 controls, and they think 600 of them are key. I'd say they kind of overdid it on what's key. You might have another one who had 700, and 100 are key. I don't know if that's too low. Maybe it's right. But you're not going to get anybody to define "key." Your external audit may take a different view on what's key than you.

The key controls have to be tested. They have to be judged to be effective or partially effective or ineffective. I don't know if this is generally agreed upon, but I believe that you can have a set of partially effective controls that overall make for an effective control over some risks. When we had weaknesses, then we had to develop plans, and they had to be such that they would mitigate the risks by December 31, 2003 so we could get the opinion we wanted.

I've already mentioned that testing. In 2003 we spent a huge effort on the documentation. We did testing that we had to do. This year the emphasis changed because we're not re-documenting everything. There are some changes going on there. We found new processes that we want to document or we documented a process. Then we realized this year that we didn't need to do that. It's not material. This year the emphasis has changed to the testing side, with almost as much effort going into test plans and auditing the test plans before you do the testing, and just gets layered on and on.

The actuarial processes are very dynamic, at least at our company. They're changing all the time. We've been through large valuation system re-engineering, trying to get legacy systems to some extent going into more software vendors. Every time you make any kind of change, you have to redo the whole Sarbanes-Oxley testing and documentation. I mentioned before that having a tool will help you out if you do what we did, which is that we implemented first last year. Now

we're moving that documentation into the electronic tool, which has made some extra work this year.

The major financial statement line items that the actuarial team took responsibility for were future policy benefits claim liabilities, dividend liabilities, unearned revenue, deferred acquisition costs (both the capitalization and the amortization) and most of the premium receivables, including ceded reinsurance. It turns out that the policyholder account balances were given to the line of business teams to document, even though the actuarial team might calculate some of the interest credits. We said that we were doing that, but it's a line of business responsibility. It's not an actuarial function. At least we didn't think so.

One of the differences with the actuarial processes is that all the other teams that are basically documenting things, such as transactions that happen daily, are booking premiums and claims and tracing from administrative systems all the way through into the financial reports. There are lots of transactions going on all the time. For the actuarial processes, many of them are only running quarterly or monthly. When they talk about sample size, it's kind of hard to say what that means. I ran the valuation once. I can't sample multiple valuation events.

We had a bit of a leg up because we had done a lot of process-mapping beforehand. We already had across the enterprise what we would call 250 reserve processes, like our individual disability income, which has its own system. Our long-term care has its own system. The top 30 of the systems make up a vast bulk of the whole thing. We documented for Sarbanes-Oxley on 30 reserve processes, and a few of those aren't even reserve calculation systems. They're things like, how we get the numbers into the ledger? How do we assess whether we have to do loss recognition or not? With those 30, we documented well over 98 percent of our future policy benefits for MetLife, Inc.. One judges it that way. You want to get substantial coverage on financial statement line items. Last year, what I would consider a large block of business, like individual disability income, might have been completely left out. This year we may be putting it back in.

Some interesting things came up on what might not be in scope. Virtually everything on that list that might not be in scope for us was not in scope. We did not document the way we do experience studies. We did not document anything about professional judgment because I don't think professional judgment should be a thing that you try to control in a certain way. On the other hand, if someone pulls an assumption out of the air, if that's the assumption and they're deciding, by all means that person should document that. Then if you trace it through into the financial reports, you want controls over that. We took the position that we're not going to try to document how I exercise my professional judgment, but once I've exercised it, and there's a product of that, from that point it needs to follow through. We didn't document pricing. We didn't document underwriting. The answer on whether that should be documented or not is more a function of how closely it is tied into your GAAP financial reporting. If you have very strong linkage between

pricing people, pricing assumptions, and how that gets into your GAAP reserves, it might be almost like a kind of automatic flow-through. Then I would say pricing is part of your financial reporting process. If it's less weakly connected, then you probably can justify not putting it in your financial report.

We have what might be considered a generic process map for most of the valuation processes. For each of the following steps we asked ourselves, what are all the things that can go wrong? The steps include loading current data from the inforce systems into the valuation system, updating formulas and assumptions, running the valuation and loading the reserves or DAC into the corporate ledger. We relied on the lines of business to document the risks and controls over the administrative system—the administrative data—but when we extract from data from the valuation system, we thought we should document that. These handoffs that you see from step to step are the main places where we find that things can go wrong.

What can go wrong? I will give you a very small sample from things that were on those four major activities within a valuation process. The sample consists of things like records being dropped or duplicated, inaccurate data, applying the wrong FASB pronouncement, assumptions changed by someone who wasn't authorized to do that, updating assumptions incorrectly, making program changes that aren't being tested properly, the valuation system not doing the right thing or numbers getting into the ledger in the wrong place or not at all.

It took a lot of effort to keep things at the right level. Some people would take things to too much detail when trying to find out what things could go wrong. They could say this particular macro on this particular Excel spreadsheet wasn't tested. To us that's making things a little too detailed because then you don't have 10,000 risks, you have 100,000 risks. Sometimes we ran into what I would call a generic risk, like people aren't trained properly. This is an example of where we were learning a lot from the others because it never occurred to me to even ask that question. When we had outside help, it wasn't just valuation people coming up with all these things of what can go wrong. We had outside help from people with audit background and they'd ask, "How do you know the people are trained properly?" When it was general we sort of kicked that back to the project management office and said that they ought to have some corporate risk about training. We didn't want to put that on ours because then every single other team has to put the same thing, and that would be kind of silly.

It's also easy to confuse a control with an activity. For example, I would call the reserve analysis that the valuation units do a major control, but I wouldn't call that an activity that has to be documented. Now sometimes the reserve analysis is so intricately part of the valuation process that you probably ought to document something about it. Clearly it's an important control and needs to be tested. People may start saying, "What can go wrong with your reserve analysis? What control did you have over the numbers that went into that analysis report?" To me you're talking about putting controls on top of the controls, and I don't think Sarbanes-

Oxley was intended to do that. Certainly an important control like that has to be tested because you have to make sure that the analysis is operating effectively.

Here's a short list of controls we documented. Some of these might be very automated, like the valuation system flagging duplicate lives or having sophisticated edits on the input data. How do we know that we assigned the right FASB designation to a product? Well, we might have, for new products, a new product working group, and they do the assignment. Hopefully they've got some sort of documentation around that so we can say, "Look, here are the minutes of that meeting," and things like that. When we change assumptions, if an assumption change memo is required, then that memo could probably be considered a control if management is required to review assumption changes. You may have IT standards that require use of acceptance testing on important system changes. Valuation units reconciling their numbers that land in the ledger would be a good control, too.

I consider the general reserve analysis a rather important control. When we were talking about what's key and what's not key at one point, some people said the preventive controls are more key than the detective controls. That's probably right in some of the more transactional-based processes, but I think that if you're putting in these preventive controls on things like reserve valuation, they might be very specific to prevent one little thing from going wrong. Whether it goes wrong or doesn't go wrong might not be material. The reserve analysis we do covers almost everything. After everything has happened and we're doing the reserve analysis, we might be able to find mistakes that are either significant or even at a level that's below materiality thresholds. It can make it so that even if you have some weaknesses in some of the other controls, this reserve analysis might be able to cover many, many things. I would submit that that would be considered rather key.

There are some challenges. Challenges in 2003 include that the scope of the project kept changing. It was like running a marathon, and just when you thought you were getting near the finish line, they moved it five more miles down the road. We started to see what was being produced and whether it was going to make management comfortable. We got a lot of input from our external auditors from the beginning, but appropriately they couldn't commit to much until they had seen the material coming out of it and finding out what was going to make them comfortable also. Some of our recent acquisitions resulted in having quite a few financial processes without anyone who really knew how they worked. That's a primary for control breakdowns. With respect to staffing, we had been on expense-saving initiatives for the last 10 years. We did not have the staff to do this even on an ongoing maintenance basis, let alone do the implementation.

The challenges include the trust factor. I don't know if it's specifically actuarial; maybe it applies to the other areas. But we're used to trusting people. I'm used to trusting the people who work for me. When we were sitting down with process owners to ask what could go wrong, they'd say that things never go wrong. "I've been running this for five years, eight years. It's never gone wrong." They're used

to that. We're not used to asking, "How do you know that person looked at that control report? He or she gets a report. How do you know that person looked at it?" Well, I'm used to trusting people. They do their jobs. That's good to have. I don't want anybody to get rid of that, but it might not be good enough for your external auditor. We've had to say, "You have to sign the report." It sounds trivial, but we get lots of people who are now initialing the reports and dating that they looked at the report. How do you know that somebody who's not authorized to change the program didn't change that program? We would say, "They're not allowed to do that." How do you know they didn't do it? It's not necessarily that we put in structures to prevent people from changing things they weren't authorized to change, but their job description now includes the fact that they're not allowed to change that program. That might be enough of a control.

Testing also brought up some interesting difficulties for us. We wrote up the test plans of how we were going to test the key controls. Then when our internal auditors looked at it, they said that it was no good at all because we basically didn't understand what re-performance and walk-through meant. There's still a lot of room for subjectivity here. For example, if a key control is an analytic report, what does re-performance mean? Does it mean somebody else independently completely regenerating that report from scratch? That would be a horrendous task. Might it be that somebody else takes the report, re-performs what the person doing the analysis did, and see if they get to the same conclusion? Maybe that's re-performance. But maybe somebody ought to pick a few of the numbers on the report and try to generate them, get numbers out of the ledger or out of the valuation system. There's no real clear definition.

We have seen many benefits already. Actuaries are familiar with thinking about business risks, but some of us haven't spent a lot of time thinking about financial reporting risks. It's learning a little about the way auditors see the world, which some of us didn't really know. For the first time, many of my colleagues in the accounting areas have gotten to learn more about our valuation processes. This has given them a new appreciation for the complexity of many of the reserve processes. They felt that it was reserves and they didn't want to know about it. They can't say that anymore. They don't have to know the details of what's going on, but our comptroller and line-of-business segment comptrollers have to get comfortable that the reserve processes are controlled. It's not good enough for just me to be comfortable; people in accounting areas also have to get comfortable.

Many of our associates in financial areas have had to learn how some fundamental business processes actually work. This is helping them do a better job at the accounting and also the reporting on the financial results. Another benefit is that people have learned more about where their data comes from and what other people are doing with the results they produce. I think that's going to be a big help down the road. Also, certain valuation processes are in drastic need of improvement. Complying with Sarbanes-Oxley is a great impetus and justification for getting improvements. This is going to drive a lot of processes because the IT

controls are much more reliable than manual controls, and preventive controls are more reliable than detective controls.

Another benefit we will get is that putting the valuation systems into more of an IT production environment is going to accelerate the monthly and quarterly closes. That will help us down the road when the SEC starts accelerating the deadlines. Good documentation is obviously beneficial. It's not a bad idea to actually have evidence that GAAP reserves were approved, and so this is something close to a concept of having a GAAP-appointed actuary. In case you were wondering about the scope of the effort at MetLife, you might be interested in the fact that we documented 500 business processes. This is the whole company, not actuarial. We documented 500 business processes, 300 system processes and 40 risk summary memos. I didn't go into risk summary memos, but basically, even after we did all of this detail, people want to know how it all comes together. You've got 30 reserve processes, but how do I know it all hangs together? We had to write these summary memos, which could have been 20, 30 or 40 pages of summary of the results of the detail. In 2003, we put in over 100,000 hours of internal people, and our external costs for advisory and audit were over \$10 million.

**MR. JEFFREY D. MILLER:** I'm a consulting actuary. The most effective control I've ever seen for actuarial processes and actuarial assumptions is peer review. I didn't hear any mention of either formal or informal peer review in the context of your internal controls. Has that topic been discussed at all?

**MR. STUDLEY:** That's interesting, and I didn't bring it up. Before this year, we had done a certain amount of third-party independent review on some reserve processes. It generally was product development people believing that our reserves were too conservative. They wanted us to go to an outside consultant to get an independent review, and we did that in a few cases. What came up this year was coming directly from the audit committee of our board of directors. They asked the question, "Have you ever had independent review of your reserves?" That led us to beginning a program this year where we plan to have all of our major reserve processes over some cycle—I don't know if it's three or five years—go through a complete independent review from a third party. It will not be through our internal auditing or external auditing. That's probably the most thorough way of doing that. There are probably lots of other ways to do that on a more limited basis.

**MR. WAGNER:** I'd certainly agree with that. While we didn't use the term "peer review," when I think about that category of soft risks in particular, the way you effectively deal with that is essentially through peer review. The example I gave was the quarterly review memo or quarterly review meeting. Pat gave the example of a working group talking about the FASBs and sign-off memos and things like that. The key behind a lot of that is that you've got more than one person involved in a process. You've got a second person looking at it. You're right, that term didn't get used, but it's certainly inherent in a lot of the controls, particularly on those professional judgment softer risks.

**MR. STUDLEY:** For things like the assumption set, it's not necessary. At some places the actuary picks the number and puts it into the system, but at a company the size of Met, it's generally going to require some committee and some discussion. There are lots of constituencies who care about that number, like for new claim reserves or certain new business products, and it's bound to have a lot of eyes looking at it. I think that would fall into your category.

**MR. DAVID M. RUIZ:** Pat, you mentioned that you perform a reserve analysis as part of your control process, but you didn't document the reserve analysis. I'm confused as to what that means. Doing this in a past life and then in this life at Scottish Re, one of the key issues with our auditors is, what do you review? How do you know it's done? How do you know that the person doing the review actually did it? I'm wondering if you could expand on that a bit.

**MR. STUDLEY:** First, the analysis takes a lot of different forms, depending on the area and the level of sophistication of what's going on. In some of our valuation units, the reserve analysis isn't much more sophisticated than simple trend analysis. Here's the reserve each of the last six quarters and the trending. In some other areas, they're doing detailed attribution analysis of the change in reserve from period to period. That's a product that all the valuation areas have. Before Sarbanes-Oxley they had done those things, and then there are things that they did with the results. What did they look into if things aren't going right? What is their tolerance for deviation?

Most of my background, by the way, has been in group pensions and group life and health. We like to do our analysis by group. Which groups had the biggest reserve change over the period? If it's more than 10 percent, you look into it. We never wrote down that that's necessarily what always happens. What Sarbanes-Oxley has changed is that, although we still do the same things, we have to write down the procedure. Now we have procedure manuals on this that we look at. The results of the analysis get put into a binder. These trend attribution analysis reports that they have produced have to be signed off by the people who look at them, and they go into a binder. If someone asks to see my Sarbanes-Oxley documentation, I pull out the binder, and there it is.

We started our testing in the third quarter based on the June 30 valuation. Somebody's report wasn't signed. They failed the test. That was a failure. It was instantly remediated, but part of the testing is to get the report and see that people looked at it, and the evidence for that is that they signed it and dated it. We're doing these formality things. A big risk is that we don't want people to turn their brains off just because they've got this report, because everybody loves that they'll have this documented process that says that they get a report of everything that changes by more than 10 percent. There are things that aren't supposed to change by 10 percent. There are things that are supposed to change by 10 percent. There are some things that if they changed by 2 percent, you'd better be worried about

them. There's a risk in Sarbanes-Oxley that people will begin to rely exclusively on these key controls and believe that that's sufficient. It's a huge benefit to do that, but I want to make sure that people in valuation areas continue to use their brains about the business.

**MR. WAGNER:** I spoke about documentation and what needs to be in it, kind of who, what, why and when. In some ways, when you think from the project management office's or the auditor's perspective, they're more interested in who's doing this report. How often is it being done? What's the report called? What's the product look like? They're not interested in whether you're looking at reserve for a thousand or how many years. They are not interested in that kind of thing. That is something that gets dealt with more by the actuaries. Pat makes a great point, which is that if we just have people kind of checking boxes on this thing, that doesn't necessarily deliver the right value. It's got to be a combination of this structural emphasis to make sure we've got the right process and it's documented, but the technical folks who really understand the process need to be putting the content into that.

**MR. ROBERT R. HAACK:** Recently, my company was dealing a lot with spreadsheets and how they relate to Sarbanes-Oxley, as far as determining what spreadsheets are significant and security on those spreadsheets. Do you have any thoughts about that?

**MR. WAGNER:** I'm glad you brought that up. First of all, in terms of significant versus non-significant, I don't see that so much as spreadsheet versus non-spreadsheet. I think you've got to step back and ask, what's a process? What are the risks in that process and the controls, and then what are the key controls? If you've got a process that's heavily oriented toward spreadsheets, then dealing with the accuracy of those spreadsheets probably does become a key control. That is a separate process. I should say, just as a general caveat, that a lot of the requirements, in terms of specifics around "how do you do tests and when," are evolving as we speak. My understanding currently about the guidance of spreadsheets is that you should be looking at a spreadsheet the same way you'd look at other types of applications. Sometimes we, as actuaries, don't think of a spreadsheet as being a system, per se. That's just a tool we use.

From a Sarbanes-Oxley risk management perspective, we're really looking at a spreadsheet with the same eyes we look at your evaluation system or your administrative system, which means not only do I need to have procedures in place to check the calculations and make sure they're right, but I should have version control. I should have authorization access, limitations of that and the kinds of things you'd have more generally around a system. That's certainly the direction I see it going. I believe PricewaterhouseCoopers has put out a document dealing with that, and as far as I know, there's not a lot of debate. It is evolving. My advice at this point would be to really think about those spreadsheets and ask the same kinds of questions you would about other more major systems. That prioritization

question becomes important, because if you tried to do that for every single spreadsheet, you're never going to get it done.

**MR. MILLER:** Pat, in terms of the cost of this whole activity I figure it's probably somewhere between \$20 and \$30 million, internal and external both. Does that sound right?

**MR. STUDLEY:** In 2003 we did spend over \$10 million. That's only counting the external cost. I haven't seen the internal cost quantified, but it is probably at least \$15 million. It wouldn't surprise me if this year it was close to the same number again, probably a little less.

**MR. MILLER:** That doesn't sound like a huge number for MetLife. You're talking about 10 basis points on assets, but it might be a much bigger number for companies a little smaller than MetLife. I'm just wondering how you viewed the cost. Could the other panelists comment on some of the reactions they've had from other clients about the cost of this activity?

**MR. STUDLEY:** I'm a little biased. I think in general the results of this are good. I think the benefits are there. My own bias is that it has been taken into way too much detail, that the cost is exorbitant, and I don't know that when all is said and done that it's really going to prevent the kinds of fraud that Sarbanes-Oxley was written to prevent. If people want to commit fraud, they'll figure out a way to do it.

While I'm on my soapbox, my opinion about STAT is that I don't think Sarbanes-Oxley would have prevented any of the major insurance company failures because I don't think those were the results of fraud or incorrect financial reporting. I think they were maybe the results of some bad business decisions. If you're making bad business decisions in a perfectly well-controlled environment, then you will have very well-controlled financial reports of your insolvency. Would that allow a regulator to catch you sooner? Personally, I doubt it. But this will prevent some kinds of financial reporting fraud over people messing around with their DAC. There are many places, particularly on the reserve side, where you can make the earnings come out any way you want, and it would prevent some of that. To have the documentation and have it all there is not necessarily a bad thing, but I think the benefit we're going to get out of it is not necessarily outweighed by this incredible cost. But there's nothing we can do about it. By the way, that is not the opinion of the company I work for. It's my own personal opinion.

**MR. WHITE:** I agree with what Pat said. I would add one other perspective. I wanted to re-emphasize one of his points. Many companies are seeing this as having a lot of upfront implementation costs. There needs to be consideration given to his point that the second-year costs are still going to be very high, partly due to things that you're learning but partly due also to the fact that just re-performing the tests is more than you may think.

**MR. STUDLEY:** Down the road I think it's going to be different. We're getting through this hump in a couple years. It's just going to be part of the culture. It's going to be process for the ownership and process owners. For every quarter when something goes wrong—there's an error, somebody finds something that was missed, somebody left something out and something was delayed by a day—now, besides all the other things we used to ask, we ask ourselves the question, which control didn't work? Was there a control we thought was working that didn't work, or was there a control in place that found this? Is this why we detected this?

We're now superimposing on our normal quarterly work this point of view about controls. That is a very good thing. Down the road after all this money is behind us and it's just part of the culture, we're kind of going to be running things the way they ran a long time ago. I remember these ancient reports from MetLife that had columns of numbers with dots next to every number. Some of you may have worked for companies like that. They dotted numbers. There was another row of dots because the supervisor dotted the numbers or checked the numbers. They dotted it. There were five sets of initials at the bottom of the report. That's how they used to do things. We're going in the same direction but from a more automated IT point of view.

**FROM THE FLOOR:** Most of the discussion and most of the work has probably been on implementing new or stronger controls on whether a number is correctly produced, whether there is some softness or human error or a judgment error going through the process. What about the more obvious? Perhaps things may well have been going on in the past such as disaster prevention. By "disaster" I mean a hardware system failure, software system failure or something that prevents the whole process from being accomplished in a time frame that you'd expect. You want to prevent that obviously. Are the controls in place to prevent it? Is that part of this process as well?

**MR. STUDLEY:** One of our teams was IT, and they had to address things like that. There's a risk that the computer center where things operate isn't working. What kind of failures like that could prevent things? They had to document that. They had to say what controls are in place. Do we have backup? If we don't have backup to a computer center, then that's probably for us, not just from a financial reporting point of view but from all other aspects of our business, an intolerable risk. Some of that may have been addressed.

**MR. PATRICK W. WALLNER:** First of all, check out today's *Wall Street Journal*. There's an article in it about foreign companies who are listed on our stock exchanges in the United States. They're looking at Sarbanes-Oxley and thinking that it's too costly to comply with this. One company is actually de-listing itself off the NASDAQ and de-registering with the SEC. There may be a little bit of a revolt that's starting overseas. It's a little frustrating going through this process. The fact that we as actuaries are under a professional code of conduct doesn't seem to hold

any water with anybody that we're dealing with in the audit community and whatnot. Are there any comments by any of the presenters on that aspect?

**MR. WAGNER:** I think that's a good question. Pat mentioned the trust factor, and I think what you're saying goes beyond that. It's not that I distrust my people, but I also know this as a credentialed actuary. I know the standards of practice they follow, just like I follow. While there's recognition of that, and Pat talked about the generic training risk, I guess it's almost table stakes that the people doing the actuarial work should be credentialed actuaries and have those standards of practice in place. I do think, though, that Sarbanes-Oxley is taking this to a higher level of demonstration. The accountants are subject to the same kind of thing. Obviously accountants have professional standards much like we do, and there's probably more per capita impact of this on accountants perhaps than actuaries. I think you have the same issue. What Sarbanes-Oxley is saying is to recognize that and, in fact, probably even require that training, but there still needs to be something beyond that to say where there's a process involved. Do I have something to make sure that that process doesn't go awry? What you're saying probably comes into play on these softer risks. If a peer review oversight function—I think ultimately that's what we're saying is on the truly soft risks—at the end of the day is the best control and the person doing that peer reviewing probably is a credentialed actuary, I almost see it as you do kind of get there. In the end it may seem a little circular, but that's what we're relying on—another actuary to have that second opinion.

**MR. WHITE:** Let me just add one thing to that. You can take maybe a more positive view of Sarbanes-Oxley and view it as a formalization or a memorialization of what's already going on. The problem is that I think most of us would prefer the status quo.

**MR. CURTIS P. STEGER:** Since you've been doing this for the last year, have you seen a major drop in mistakes that have gone through? Some seem to be under the impression we will never make a mistake again. What was the increase to your timeline of financial reporting? Did this add a day or two days or was it about the same?

**MR. STUDLEY:** For your second question, our time frame was not increased, and we continue to put things into place trying to decrease the time frame for financial reporting. We have not had a drop in mistakes. Not yet, although I expect we will see that. The mistakes are looked at, like I said, from a different point of view. When a mistake happens we evaluate it from a Sarbanes-Oxley point of view, but the controls that we already had in place for the most part were deemed effective, or several partially effective controls amounted to an effective overall control. We didn't have to change very much about what we did in 2003. If we found all these problems and had to put all this new stuff into place, then I would expect to see an improvement, but, in fact, we didn't have to change very much. So we wouldn't necessarily expect to see a big drop in mistakes right away, but I think over time

we will, because every time a mistake happens it has to be evaluated from that point of view. That will lead to further improvements in controls. It will lead to more automation of the system. I would expect to see a drop in mistakes and a shortening of the closed time frame.