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Session 32PD
Statutory Reserving Update—Life Products

Track: Financial Reporting

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Summary: This session provides an overview of recent and potential developments and future developments in statutory reserving for life insurance products.

- *Life insurance, including Regulation XXX*
- *Variable universal life*
- *Equity-indexed universal life reserves*
- *State variations—tax considerations*
- *Offshore reinsurance*
- *Unified valuation systems*
- *American Academy of Actuaries Extended Maturity Option Work Group developments*
- *Actuarial Opinion and Memorandum revisions*
- *New Commissioners' Standard Ordinary mortality tables*
- *Trends in valuation interest rates and the Applicable Federal Interest Rates*

Mr. Michael V. Eckman: Our first speaker will be Andrew Erman, who has worked in product development and management for several companies. He was at Northern Life and I started to work with him on equity-indexed annuities and then he moved to ING. He is now vice president and actuary of product innovation at Pan-American. Tom Campbell is vice president and corporate actuary for the Hartford Life Companies and has worked with several AAA committees dealing with statutory reserving issues. Dave Sandberg is the vice president and chief financial actuary of the Allianz Life Insurance Companies of North America and has spent significant time on regulatory issues, particularly the development of the unified valuation system (UVS). I'll ask Andrew to start with his presentation, which he has titled, "Statutory Reserving Update—Life Products Selected Topics".

Mr. Andrew M. Erman: I'm here to talk about reserving updates on life products, or at least some of them. I would encourage everyone to ask any questions on

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Note: The charts referred to in the text can be found at the end of the manuscript.

equity-indexed universal life (UL); that's the main reason why I'm up here. I'd be happy to answer any questions on product development, too.
I won't go into a lot of detail about Regulation XXX. As you know, it affects reserves for products with long-term guarantees and the details are really addressed elsewhere. There are some things going on in the actuarial community that the regulators are watching very carefully. I would encourage anyone who's developing products, or who is involved with product development in their company to be careful because of the level of scrutiny that they get at the regulatory level.

The variable life (VL) guaranteed minimum death benefit (GMDB) task force is promulgating an actuarial guideline for the purposes of reserving GMDB reserves and long-term guarantees associated with a variable policy (variable, of course, being excluded from XXX previously). Hence, there was a hole that is being filled with this guideline. It's the same concept as the long-term guarantee on a regular UL.

Where the task force was having an impasse was a variety of regulations and conflicting opinions as to where things were going. I think you have four different influences facing them: the standard valuation law, the VL insurance model regulation, the UL model regulation, and XXX. They were not passing formally in all states and it made it difficult to come up with actuarial guidelines; however, there is progress being made at this point.

Actuarial guideline for ZZZZ, is, of course, very similar to ZZZ and it splits products into three groups. Type 1 is your implied guaranteed rate method. That is more or less a book-value type of approach. That has the highest level of requirement in order for you to get the benefit and the privilege of book-value reserves, which are smooth and stable over time. Those requirements are: (1) in terms of product feature and (2) in terms of your hedging requirements and your hedging strategies. I think the specific product features that determine the option should be one year or less and the long-term guarantee cannot be too excessive and that's defined in the guideline.

Type 2A is the middle-ground approach. It's Commissioners Reserve Valuation Method (CRVM) with updated average market values. And that is designed to match to your market value approach over time. It always averages and it continually rolls that average forward; it will react to market conditions but slowly, and over a five-year period. This has some of the benefits of stability, but it doesn't have all of the punitive measure of the volatility; of course, with the stockmarket today, I haven't checked out the volatilities lately, but I imagine anyone with a Type 2 method has to be a little worried right now. If they were in this approach, it would smooth it out and make it a little bit more palatable.

You have the same restrictions on the product features with no hedging requirements. Type 2 is the default method. We don't care what your product features are. We don't care what your hedging requirements are. You can always reserve under Type 2 method—Type 2 is a full market value type of reserve. You always are updating your valuation reserves at every point in time and every year using the current market values, and nothing that dates back to your issue date.

Calculation details are discussed elsewhere. I think there are some examples in the guideline. Or you can feel free to ask me if you have any other specific questions.

CSO mortality tables. Work is underway and it's expected to be complete by the end of the year. What it holds remains to be seen. I think we can expect the mortality rates to be lower. They are supposed to be smoother. I don't think they'll be level though. They will be lower and I think that will result in lower guideline calculations. I don't know and I'm not convinced of how it will affect your reserves, especially for UL reserve just because of the way it feeds into your guaranteed maturity premium. You can't say that it'll be lower or higher until you see the actual table and see the tilt, but I do think you can expect to see lower guideline level premium and guideline single premium, which are the tax code guideline rates.

Mr. Thomas A. Campbell: I'm going to talk about four topics. The first two involve efforts by the NAIC Life and Health Actuarial Task Force (LHATF) to look at guaranteed living benefits written with variable annuity (VA) contracts and extended maturity options written with life contracts. Living benefits are not annuity contracts, but we thought we should spend at least a minute on it because it's something that affects life companies.

The third topic is the recently adopted NAIC model regulation on guaranteed separate account group annuities which could also apply to certain life products. Fourth, I'm going to briefly talk about some of those sources of information that can help you stay informed with what's going on, both for current and future state reserve issues.

Regarding living benefits, in September the NAIC LHATF proposed Actuarial Guideline MMMM which was developed by the Academy's work group and addresses reserve treatment for these benefits.

While there are several issues that the LHATF is still looking at, the expectation is that this can be adopted as early as December and have a December 2001 effective date.

The guideline has a reserve framework that's very comparable to Guideline 34, which covers GMDBs for VAs. However, the benefits in this reserve methodology are projected using conservative returns that are much different from the drops and returns in Guideline 34, and it's the conservative returns that are being looked at more closely. There are various ways to determine the returns. The guideline tries to incorporate more actuarial judgement and also may incorporate in some cases a certification. The guideline, as with Guideline 34, is an interpretation of the Commissioner's Annuity Reserve Valuation Method (CARVM) and will affect all guaranteed living benefits that have been written. It'll affect them retroactively. You can get copies of this guideline on the Academy Web site and also from the

NAIC Web site if you have access to the quarterly NAIC meeting minutes. The NAIC also adopted risk-based capital (RBC) factors for these benefits, which were effective for year-end 1999 and were meant to be temporary factors until the reserves are done; after that they're going to have another look at it. And my impression is that the Academy RBC Task Force is going to look at this as part of their ongoing efforts to revise the C-3 methodology.

Finally, on living benefits, California rescinded authority for companies to write these benefits earlier this year. California had been working on trying to get this authority through legislation. Since then, and, in fact, at the end of September the Governor of California did sign the legislation that does provide the authority. About two weeks ago, the department issued a 2000-03 bulletin that I'm told will be on the California Web site. The bulletin requires companies to hold reserves following Actuarial Guideline (AG) MMMM, subject to further revisions based on whatever it is that the NAIC ultimately adopts, which means that AG MMMM is now the requirement in California.

The NAIC also started looking at extended maturity options. These are benefits which are offered with a life insurance policy and allow the policy to stay in-force, beyond the maturity date that's in the policy, which is typically age 100. They've become more and more prevalent in the marketplace, in reaction to improved mortality and in some situations they may prevent an event that's created by the maturity of the contract; simply put, these benefits exist just because 80 CSO mortality table is conservative.

In December, the LHATF expressed concern that there may be inconsistent and maybe even inadequate treatment for reserves and nonforfeiture benefits and asked the Academy to study these issues. In June, the Academy put out a report which got into a definition of the benefits. It talked about the market profile of the types of benefits that are out there and included a survey that went into both company practice with respect to reserve and nonforfeiture and also state insurance practices as far as what they look for in filings. Ultimately, LHATF decided not to pursue these issues in the immediate future, in part because it really wanted to concentrate it's efforts on the new CSO table, which LHATF believes will eliminate the need for these benefits.

New York has addressed reserves in their version of the XXX Regulation 147, and the reserve requirement is that you need to assume that the policy endows at age 100 for the greater of the cash surrender value and the death benefit at age 100. If you want to get more information on this, you can get a copy of the Academy report from the Academy Web site.

The guaranteed separate account group annuity is a model regulation that was adopted last year by the NAIC. It's modeled after New York Regulation 128. It applies to group contracts with guaranteed benefits. It excludes modified guaranteed annuities (MGAs) and VAs and it covers both market value and book value, separate accounts, and both indexed and non-indexed products. It gets into product filings, insulation of separate account assets, and statutory reserve requirements. There's also a requirement for a stand-alone actuarial opinion. And then there's also an asset maintenance requirement which means you look at your assets backing these policies and you hit it with a haircut and you compare it to the liability. The assets less the haircut must be greater than the liabilities you hold for the contracts.

While this is a model regulation, no one has adopted it yet, although Connecticut is, I would say, agonizingly close to adopting this regulation with some minor modifications. But because it is a model regulation, it is part of codification, so it does define statutory accounting treatment for these contracts. In addition, the NAIC is looking at RBC requirements for indexed separate accounts, with help from the Academy and the Life Risk-Based Capital Task Force, and they may be increasing the current factor of 3/10ths of 1%.

My fourth topic is sources of information. Here are some (old fashioned) written publications:

- *NAIC Model Laws, Regulations and Guidelines*
- *LHATF Mailings*
- *Valuation Actuary Symposium Proceedings*
- AAA Life & Health Valuation Law Manual
- *SOA*—The Actuary/*Section Newsletters*
- *AAA—Academy Updates*/Contingencies
- National Underwriter
- *Newsletters—Software Vendors/Accounting Firms*

Here are some useful Web sites on the Internet:

- *http://www.soa.org*
- *SOA Discussion Forums*
- *http://www.actuary.org*
- *http://www.naic.org*
- *http://www.acli.com*
- *http://www.nuco.com*
- *http://www.insurance-finance.com*

This list is by no means complete and I'm sure I missed a lot of obvious ones. Many of the trade associations, like PIA and NALC were not included. This completes my portion of the presentation.

Mr. David K. Sandberg: I'm here to talk about developments and directions for the Valuation Task Force of the AAA. It's gone by the name of the UVS, and for the year 2000 we've had three key initiatives. First there was a discussion and a project on viability analysis, the second was a project to prepare a modeling seminar, and the third was to coordinate modeling approaches and research with the SOA.

So looking first at viability. The idea of a viability analysis is that the insurer needs to be identifying, evaluating, and managing its risks of carrying out its business plan.

It should be something that is understood and used by the board of directors and it's meant to be a confidential internal company document. It would be available if there was a company action-level event that would trigger that requirement. But what is it? Well, the process is meant to identify the idealistic process. What is it we're trying to do when we talk about risk management and the company and why is this useful and why should the AAA be recommending that this is something that has value? The process itself is a fairly straightforward one. You're trying to identify risks. Look at the analysis and the measurement of those risks. You're trying to establish what are the key things that need to be measured and then evaluate and make the recommendations based on the analysis of those risks. What are the implications for the company?

This is from a report that was prepared earlier this Spring and was presented to the NAIC at their June session. There is a full report that goes through the principles behind it, and then gives some examples that are currently being used by four different kinds of companies. What is it that's happening at a large mutual company? What's happening at a small stock company or at a fraternal organization? And what is one company doing as their internal review of what their top areas of risk management are? And what is it that we need to concern ourselves with?

It also goes through some of the implementation issues that might occur with this kind of a concept. Many people have been concerned that if you actually analyze risk and end up conveying that information to the board of directors, don't they become liable? It's also just as true that a board can be found liable for ignoring risk and not being thorough in its job. In the U.S., that hasn't been as dramatic as it has been in other places, but there are regulations in other countries that hold the board accountable for risk management. And if they don't have a risk management process in place, and there is something that blows up at the company, they can be disqualified from ever being on a board again. So, there's a framework for realizing that it is a company's responsibility to be doing this process.

The other concerns are looking at confidentiality and whether we should be using a bottom-up versus a top-down implementation. For example, many of the casualty actuaries whom I've talked to, about dynamic financial analysis (DFA), feel like what they have been trying to do is approach this from a company level. Using a kind of a grassroots approach, build the models, and then it will come. They've been focusing on educating their actuarial profession or group or body to using these models and techniques and developing within the company before they come from a regulatory framework. The other end is perhaps what happened with valuation actuary concepts, where we say we need valuation actuary concepts, and some companies were doing it but the regulators said, we're going to define it so that it occurs in this context and through this kind of process.

We are currently somewhere in the middle on this in that both the regulators and the Academy are trying to work through it. What are some efficient ways to do this? Nobody is interested in mandating something that is expensive, that is not

usable, or that doesn't add value. On the other hand, there are very important reasons to be pushing forward the kind of information that would be more valuable at a company level. And so, there are different ways to approach this and we're actually kind of proceeding on several levels.
Last, there are different ways you can implement these kinds of things. One is a stick that says you have to do it or you're not allowed to be a company. Or with the carrot, that perhaps there's a reduction to your RBC charge, if the company certifies on it's annual statement, that the board has seen a viability analysis report, reviewed it and is acting under its guidance or considering executing it into a business plan. There are additional carrots that could be put together in that framework.

The June 2000 Report of LHATF is available on the Academy Web site *http://www.actuary.org*. There's a financial reporting section for their 2000 public statements in the public policy section where this can be found.

We've kind of completed that aspect of the 2000 initiatives, and we're looking at completing, at the end of this year, a seminar where we want to do a modeling project. We would like to focus on quantifying the risk to determine the required capital for the multiline company. This is being coordinated with the SOA and we'll be doing a seminar in conjunction with the investment actuary symposium. That symposium is on November 9th and 10th.

We have five product lines: ten-year level term, UL, variable annuity guaranteed living benefits (VAGLB), single-premium deferred annuity, and income pay. We had a couple of health lines that we wanted to model, but because of resource constraints we weren't able to include them in this phase of the project. But we expect to be able to include them at a future point in time.

So we're trying to show, using current modeling tools and techniques, what can be done today. We'd like to also develop a model that's usable later on. My experience, in going to many presentations, is that someone from a company or a consulting firm will present a simplified snapshot of a project that they worked on; that provides some interesting results, but it's not very usable later on. If we want to reorganize some information, or to look at it under another set of circumstances, or if we want to combine it with some other features, the data is not available, then it's not usable. So we want to make something that's kind of portable. This is meant to be a foundation for additional research and discussion that needs to occur.

So the first step of this is take some asset/liability (A/L) cash flows and generate risk distributions for individual product lines and then create a total company summary. And we want to look at three consecutive balance sheets. So we want to be able to look at across time what's happening if I use a direct analysis of the risks. Then we create cash flows that can be discounted or risk-adjusted if we want to also use this for fair-value analysis. The core of this idea is that the fundamental questions that we're trying to look at as actuaries today are: What is the required capital? and What's the foundation for my earnings? And you can

either use a book-value approach, or you can use something that says, I should model the risk and assess it today, and so how would that unfold? If I'm doing the risk-based approach, whether for capital or for income, a lot of the analysis and tools and modeling has a lot of overlap. So we're trying to provide some economies in being able to look at and address both of these questions.
Now, these problems are really broad. And they're complex. I'm the first to say that we're not going to address them all in the first wave of this modeling. On the other hand, they're too important to ignore. And they need to be addressed with some real immediacy. We need to have a way that allows us as a profession to have access to the information, think about it, respond, and give it a very critical review. The core of this is the question, How can the actuary present to an external public what the required capital and the reserve requirements are for the company?

As an example, for a property and casualty (P&C) actuary and for a health actuary, if you look at their annual statement, the actuary certifies that, in his or her professional judgment, the reserves are appropriate. But there is no set of factors, there's no set of seriatim listing of policies that I can calculate and say yes, that's the reserve. It's a process whereby tools and techniques are used, and then in the actuary's judgement an appropriate level for the reserves is presented.

In the Blue Book, there's nothing that the actually says that, in my judgement, this represents the reserves of the company. The actuary certifies that the number that's there meets the minimal level of adequacy, but that's all the actuary certifies. In addition, the next step from that is that on the health and P&C side, in later years, as the actuary revises his or her judgement, if there's a lot of volatility in that judgement, then there's an increased charge to the RBC requirements for the company. So there's this kind of self-monitoring mechanism that reflects how much uncertainty there is in the reserve estimation procedure.

Again, nothing on the Blue Book side equates to that. Nor is there anything in the Blue Book that says for a company this is what we believe is going to happen in the future and if we're wrong, you'll see as our financial statement unfolds, this is how the book values are going to run off. You would think that a company trying to present its financial picture should have some responsibility to indicate what we believe about the future, and that our risking of the company will result as that volatility unfolds over time.

So, trying to give some context for what it is when you talk about UVS, what is the question? It's a fundamentally different way of approaching reserves and RBC. It is not meant to be simple. There are some very difficult challenges with it. But compared to the alternative of traditional book-value reserving on the life side, I think it's an important one that needs to be investigated.

The point of the seminar is to take what we've known, that we can use today, using current tools or techniques. We can answer in a model a lot of things. For example, the C-3 requirement for RBC in the current Blue Book has been modified to allow some actuarial modeling or estimation of that risk when certain kinds of conditions have been met. That's the first step along this process and nobody questions that that's a very appropriate way to have the actuary model that and estimate that risk. So the question is, how much further risk would be a benefit from that kind of analysis?

In addition, we need to provide academic and actuarial research that will focus on the topics that are key to this kind of question. Today, my own view is that the research is fairly scattered and there are lots of interesting things. As an actuary I don't go into my office in the morning and ask, How is my risk profile of the company doing? I question oftentimes why my reserves are out of balance and the accountants want to know why the statutory income is up and if it's reasonable and what's driving it. I tend to spend, in that framework, a lot of time dealing with these kinds of accounting questions. This needs to be done in the current environment, but as actuaries we have additional value that we should be contributing and our time and energy should be spent more fruitfully in other areas.

So, what is the UVS process again? You start with specifying what the key risks are and what does the risk distribution look like? So if I'm estimating interest-rate risk, most of us are familiar with the idea of estimating a mean and a volatility and then generating a set of interest rates that will allow you to capture and measure and analyze the interest rate risk. You need to define some kind of standard for it. For example, should there be a percentile? Should the RBC be a requirement at the 95th percentile or the 90th percentile? Another concept that's been advanced lately by the Canadians is what is called conditional tail expectation (CTE). The idea is that you look at the tail end of your results and you may have a situation where your risk kind of explodes on you, as you get out in the tail. And it just cuts it off at the 95th percentile, maybe ignoring a lot of risks that are important. So the idea is, you take the average of the results over that remaining tail and use that as the measure.

So, for example, if your risk is truly linear, a CTE of 90 would be equivalent to a 95th percentile. A CTE of 95 would be equivalent to a 97.5 percentile. And then you have a way to kind of capture the dynamics that are going on in the tail. At any rate, that's the idea of a solvency standard. You need to anchor it to that. Then the next concept is that for an aggregate risk distribution, obviously, the whole is less than the sum of its parts. If I have multilines that are offsetting risks, the capital requirement should reflect the extent that that occurs. Not every bad thing is going to happen at once.

The next step in the larger picture is thinking about what is the role of my in-force business. How do I include renewals? If I look at something—for example, guaranteed renewable business—where I might be able to alter my premiums, I can also look at what's the impact of new business and the risk beyond insurance risk. As actuaries, we're well-qualified in trying to talk about the insurance risk. There's a total company risk that includes operational risk. And we need to be able to link our discussion and talents into that framework and to talk in a more standardized way about the additional risk to the company.

We currently are able to kind of put it into the black hole of C-4 risk, and say there's a whole bunch of other stuff. We'll just call it X percent of premium and we're done. And, certainly, we can say there are certain sets of risks that maybe we'll always think that way, but as you start reorienting your approach to valuation, to be able to understand the risks, and as you start pushing the ability to measure it, you find that you get better at it. For example, obviously with the mortgage loan industry, 15 years ago, there were a lot of differences in estimating prepayment speeds, and values and you would say, well, it's still subjective and we can't get a lot of data on it. But as people started focusing on the explicit measuring of it and started realizing we were wrong, we've learned from that and knowing how we were wrong we can add a few more adjustments to it. Pricing today is fairly consistent on a vast majority of that business.

One of the outstanding issues as far as UVS is concerned is obviously the framework in which it would operate. The timing of the process—Is this something that would be done at the same time as an annual statement, or would it be done at a different point in time? You need to decide if you have an actuary who's doing this and assessing this information. Is there a reviewing actuary who also reviews it and what is that role? Is it a standards kind of perspective? Also, developing the state of actuarial knowledge—We do have current tools or techniques, but we do need to be supplementing and adding to that. We also would need, obviously, to think about how would our standards of practice be developed and the training that might be involved on that aspect of it.

Now I tried to give kind of a quick overview of where we're at with the project. I've assumed some familiarity with the issues. We've presented reports to the LHATF year-end 1999 and year-end 1998 that talked about the principles and the framework. How might you craft the model law? What important elements should be included in the model law, such as a reviewing actuary, and what are some of the options and alternatives of thinking about that?

Mr. Dean K. Slyter: I have a question on UVS. I heard in January 1999 that we had the kind of typical problem of statutory authorities wanting reserves high and tax authorities wanting them low so that the income could be realized. I'm wondering where things are at with the issue of UVS and acceptance by tax authorities.

Mr. Sandberg: Well, the decision was made a year ago with the UVS project to say that the current statutory reserve framework would stay as it is so that we can in a sense sidestep the tax issue. And it really has become a question of expanding the valuation actuary concept to a role of required capital. So the question of the analysis is to determine what's the capital level above the reserves that are being calculated on a tabular basis and leave the reserve question for a later project. It's one way to simplify somewhat the complexity of what we're doing. It's interesting, though, as we made that decision, I guess it was a year-and-a-half ago, subsequently the international developments and the FASB developments on fair value have accelerated the question of how you determine income and really reserves are a question about income. How should you release the income? And so where we thought it'll be a few years before we need to get to that question, it is something that is coming with real immediacy now.

Mr. Vincent P. Gallagher: David, you alluded in connection with RBC to there being some provision for cash-flow testing, as part of the C-3 risk, and the impression I got from you was that it was voluntary, but I have heard that there is for some companies required cash-flow testing for the C-3 risk, depending on two tests. Can you comment on that and maybe discuss the two tests?

Mr. Sandberg: Yes, thanks for bringing up the clarification. It is not voluntary. There are certain parameters that are defined based on the amount of risk that is observable in your current C-1 through C-4 numbers. Basically, you're looking at the ratio of what is your C-3 factor to your total risk factor, and if it's above a certain percent, then you are required to do cash-flow testing. And, in fact, if you don't meet those parameters, you cannot do the testing and cannot get the credit for it assuming that you had less C-3 risk.

From the Floor: Yes, it's only Section 8 companies, those companies that already do cash-flow testing if they pass the exemption tests . . .

From the Floor: If I could ask a more specific question. One of the two tests is a stress test and it involves increasing by a factor of, I think, 7.5 a portion of the quantified C-3 risk. There's a split between two parts and I've not been able to find anywhere a description of how that split takes place. Could you elaborate on which gets the 7.5 factor and which doesn't?

Mr. Sandberg: I used to know that answer off the top of my head. I'm surprised that's not in the RBC. Are you saying it's not in the RBC?

From the Floor: When I looked at it about a month or two ago, it specifically referred to line items and the calculation, but I didn't have access to the year 2000 calculations and those line items didn't exist in the 1999 calculations.

Mr. Sandberg: I can't answer that at this point, other than saying I'm not sure where they're at in the listing of those instructions. If you're saying that 2000 calculations are not quite available . . .

From the Floor: Well, they may be now. They weren't a month or two ago. It probably is. I just haven't seen it conceptualized anywhere.

From the Floor: Yes, there's a list of product lines that testing would have to apply to. . .

Mr. Sandberg: Do you know where that list resides?

From the Floor: It should be in the instructions or you could get the final RBC report, which I think is also on the Academy Web site.

From the Floor: One of the things we did in going through the exemption test was not really know how to split it up because we had a similar issue not really being able to identify the C-3 component for those particular products. We apply the 7.5% to everything. We still pass the exemption test. So we figured if we could pass it on to everything, we could pass it on the specified products.
From the Floor: Unfortunately, I have a client that doesn't pass on everything.

From the Floor: When we're looking at Regulation XXX—you made some comments on that Andrew—and also on the new CSO tables, what happens to XXX once the new CSO tables are developed?

Mr. Erman: I think Tom can answer that better.

Mr. Campbell: Well, my understanding was that XXX wasn't going to go away. That you would still be able to use it within the context of the new CSO tables.

Barbara J. Lautzenheiser: I'm not sure that anyone has even thought in terms of specifically what would be done. But I think that the general thought is that XXX probably will not go away. I did want to clarify that there are three steps to the CSO tables. The first step is an experience table, which actually is completed. The second step is a basic table, which should be done by the end of this year or the first quarter of next year. And we're continuing to work past the end of this year on a table that we think of now as a loaded CSO table, and there is a lot of conversation about whether or not it's a single table or a formula kind of table or a single loading table. Is there a loading that is a function of the credibility, of a company's experience, if we end up moving toward something like UVS where a company's experience could in fact be utilized? Do we need different kinds of loadings for nonforfeiture because CSO will be used there? Are we going to need a fixed table for income tax purposes? There are a lot of questions that haven't yet been answered and a lot of these issues haven't come up yet, but will be coming up down the road. But it's sometime off before we end up coming out with a CSO table that is a table or formula or any kind of a set of mortalities data that in fact would be utilized as you would utilize the CSO table.

Mr. William M. Howard: Where might one read the discussions on those various loadings that are being considered?

Ms. Lautzenheiser: They are just beginning, so you're not going to be able to read them for a while. We are in the process within the Academy of trying to determine how much of the information will go up on the Academy's Web site for committee members or non-committee members so that will be the ultimate place for you to look. You can also right now, to get a general sense of it, get minutes from the LHATF at the NAIC. The summary of the presentations that are made by that CSO committee to LHATF would be in those minutes. Those minutes are on the Web site, I believe.

Mr. Campbell: Yes, you have to have a password. You have to actually be registered for the meeting to get a password to get on there. I think you can pay a fee though to get access to it. But September meeting minutes are now out there. I actually just recently went on the Academy Web site myself. Being involved in a lot of Academy issues, I usually get copies of a lot of reports and things. I haven't had the need to go into the Academy Web site, but it looks like they've built that up very well recently. Tom Wilder and the rest of the Academy staff have done a great job on that. If you go on, it's *http://www.actuary.org*. You go into the public policy section and then click on NAIC reports.

From the Floor: I haven't heard the actuarial opinion and memorandum regulations (AOMRs) really being discussed. I got something in an e-mail on Friday from the smaller insurance group about something new going on but I haven't had a chance to review it. It would be nice to hear the panel discuss it. Are the battle lines drawn? Where do we stand on this? Is it a done deal? What's going on with the Section 7 portion of that? Also there's something here called trends and valuation interest rates. I'm not sure where you're getting at there, but it would be interesting to hear you discuss it.

Mr. Campbell: First of all in the AOMR, I'll give you my take on it and I'll speak as a self-affiliated person. It sounds like a good concept. The Academy has tried to address the issue of Section 7 opinions by revising the standards for cash-flow testing and describing the concept that a company has a requirement to assess the level of risk within a product line or within the company. It can do an initial study to see what the relevant risks are for the company. And it may be that they can determine at that point that cash-flow testing is not going to have any additional information about risk. And, if so, then the company is exempted from cash-flow testing. But the standard does not intend to allow any automatic exemption just based on size.

Now at the NAIC the small companies representatives have been very concerned that this is still mandating additional expenses for them. And I think from an actuarial standpoint, the idea of saying an actuary is the one who needs to determine whether the risks are appropriately covered or whether additional analysis is needed is where it needs to be. Now the small companies are still resisting that and they are planning to use the networks that they have to raise opposition to this as an additional expense. I am concerned that it will become more politicized than it really is. I think some people have gone through some nice work to find a workable compromise in this arena and that discussion will come up again in December. The NAIC LHATF wants to move ahead with the recommendations, but it will be facing resistance from the small companies. The proposal is out for exposure and it's been a coordination between the Academy having the standards available so that the NAIC policy can be linked to those new standards. The Actuarial Standards of Practice are also available for exposure, along with the NAIC proposal.

From the Floor: The other change in the AOMR is in the way companies file opinions and how they opine on minimum reserve standards. Currently, the requirement is that you opine that you meet reserve standards on a line-by-line basis or product-by-product basis in your state of domicile. But from a filing for a

non-domiciliary state you have to meet the minimum standards in aggregate. Now what the update of the AOMR will do is allow the state the option of just getting a state of domicile opinion. In other words, if my state of domicile is Connecticut, I can file an opinion in Nevada and Nevada will accept the fact that I meet the minimum standards in the state of Connecticut.
It does give the states the option to require other things in exchange for that. For instance, Nevada may say, it will accept that if you show what reserves you're holding for individual life versus what it would be under XXX. It can do other things. It can just simply request that you give them a state of filing opinion. So there's a broad range of options for the states. The thought is that a good portion of the states are going to be OK with getting the state of domicile filing.

Another thing, the one state exemption was something to address the smaller companies. For those companies that are only licensed in a single state, at the state's option, they will not have to do any type of asset adequacy analysis; they can give a plain-vanilla, Section 7-type opinion.

The other question that was raised is on the applicable federal rate. Did we take a look at that? I think the only issue there was what's happening to those rates? I do have a little bit of history, in the last three years the rate has varied between 6.3% and 6.33%, so it's been pretty stable. As of 2000, that rate has gone down to 6.09%. Based on where rates have been so far this year, obviously pending what happens the rest of the year, we expect that that rate is going to go down again by another eight or nine basis points. It could be as low as 6%. So it has been going down, because of the low interest rates in 1998 and 1999, I think it's a five year rolling average, and we've been dropping off some relatively high interest rate years and adding on lower interest rates.

Mr. Eckman: Dave, some of the discussion particularly around XXX recently has been the role of the actuary and this idea that you touched on—dealing with risk and how well you can handle that. So I was wondering if you could comment on that.

Mr. Sandberg: I was going to make a recommendation if we seem to be comfortable with the historical basis of where we are with the current statutory reserve environment, I did prepare some additional information that I thought might be helpful to think about the context of where we are today and where we're going. In other words, three to five years from now, we may be having significantly different kinds of discussions and there have been significant developments occurring. Just this June I remember being at the NAIC meeting and Bill Shreiner happened to mention, "It's exciting being here. We're watching history happen before our eyes. We're not quite sure what it is yet, but we know somewhere it's happening. And it will be a different place in which we're operating." So I'll just take a few minutes and do that.

The UVS approach is really saying it's a principle-based alternative, based on the principles of risk. And I just contrast that with what I might characterize as happening in the banking industry in the late 1980s and early 1990s. Again, that's a framework where you have specific A/L designs that were driven by formulas. And so the banks focus not on the true risks, but on how to best gain their balance sheet in order to take advantage of what the rules said. And in the end, the end product of that is that the long-run risk was increased. So you had this tension between defining lines in the sand, or a rule-based approach that says anything on this side is safe as long as it looks like this, and anything else is not allowed. And so again, you're not looking at the true risk. You're looking at how to game the system. Some of the current controversy on XXX has been a concern that the actuaries are trying to game the system by coming up with product types that don't fit in the restrictions. My own view on that has been that the actuaries asked to do the valuation topic are doing the right kind of job. They're looking at their company's experience and what is going on and they're saying, "This is what the reserves should be." The problem is that the regulation itself when it's applied only defines a line in the sand. It says that if you're this product type, then XXX applies. And the regulators say, you know, we aren't trying to do that. We're trying to get the real risk. So their message has been if it looks like XXX it is XXX.

What I'd like to talk about next are three factors to consider in the changing environment. One is about our professional identity and who we are and the second is, there are audiences for our services. The third is, what are the actuarial efforts currently underway to respond to this? Again, this is based on the premise that we are in the middle of a transition.

The first question is, What is the role of the actuary? Is it as an insurance engineer or is it a subset of insurance accounting where somebody prescribes the rules for reserves and RBC and then you do your best to carry that out? Contrasting the pictures here we can take the big pot of money to be the accounting concern and I'm going through calculating the exact amount that fits in which category. The other is the broader view of what's the risk of the enterprise. For several years, I have described an actuary as an engineer of finance. We're trying to use tools to assess how stable and sound this product is. What kinds of repair might need to be done in order for its intended usage to occur?

I'm going to focus on the idea of the insurance engineer aspect of this. At the NAIC audiences are asking these questions. LHATF is the one that originated the UVS questions several years ago. The Casualty Actuarial Task Force is reviewing concepts of DFA, which are inclusion of new business, and a broader risk profile of the company. The A Committee is reviewing risk disclosure and management information on liquidity. There is an E Committee that is looking for work from an Interested Parties Working Group to document the list of risks that are faced by both life and P&C companies. They want to be able to document best-industry practices for risk management.

There's an RBC committee looking to the next steps on the life side, some of them being risk of equity volatility, value of covariance adjustment, and all of the equity-linked kinds of products that have been developed. The 2000 CSO table, as Barbara mentioned, is moving to allow a creative framework for more actuarial discretion. Lastly the NAIC is trying to respond to some people who have suggested that they may be more comfortable with a Canadian type of approach to the valuation RBC requirements.

At the federal level, the Federal Reserve Board wants to track the NAIC developments. It's not trying to endorse anything or set policies, but it has an interest in both the research and supervision side because it's held responsible for solvency. So if a bank owns an insurance company and one of these financial services holding companies, the Federal Reserve is going to be setting standards for that company. So it's interested in these questions.

The interesting thing for me in the last year has been to realize how bifurcated sometimes the federal government is. We're used to thinking about 50 states, and that's a problem; sometimes they don't speak to each other. The federal government also has lots of different divisions. And there may be lots of different areas in there that come into play here, too. Some of these on the health side are much more dramatic than apparently they have been on the life side. The life side might get introduced to this as this unfolds.

Another interested party is the International Accounting Standards Committee. It is considering capital requirements as possibly part of the sound fair-value process. The key element here is that as of the first of this year, it will have a full-time board. Historically, it has met three to four times a year, it had committees that would come and give reports, and it make comments and suggest ideas for having a global set of insurance standards. It has realized that if it is really going to do this job, it is going to meet full-time on these issues starting January this year. It expects to come up with a set of standards that it would like to be able to suggest as workable in a worldwide framework. Again, like the NAIC, it doesn't have any authority other than defining a model and if people are interested in accreditation then it has that kind of authority behind it.

Obviously, to do fair value you need an evaluation of the risk and a way to assess the charge for risk in determining the values of the company. There's an International Association of Insurance Supervisors, so there's an international level, saying we like the fact that there's a common framework for understanding capital requirements. We have so many global companies these days that it would be important to be able to talk consistently about that process.

There's also a concern about international solvency across financial institutions. So at an international level how do you look at banks versus insurance companies? And the other is the increasing use of international parents.

Again here are the two questions that are really on an international level: how can you make sure that your country doesn't end up with financial arbitrage? and When is it better to put the capital in a different country because their capital requirements are different?

So in the new world, or in the direction things seem to be taking us, do we need a new framework that would include both a risk and a solvency margin in a fair-value framework? And a way to look at your risk comprehensively across product lines, countries, and financial institutions?

Now as actuaries, we can either say it's too difficult and let others find simple solutions that we're asked to implement, or we can be involved in the process. I don't know if your companies are having any trouble with FAS 133, but my perception of it is that it's an accounting pronouncement that had very little actuarial involvement. The accountants said, you know, we'll just define it this way, it kind of makes sense to us and the actuaries can figure out the details. And the details do not make very good accounting sense. So as actuaries I think we do have a responsibility and an opportunity to be involved in some of the earlier discussions so that as some of these principles unfold we have an opportunity to feel like they're part of a more coherent framework.

Independent of the regulatory question, the corporate question is becoming much more important, also. I'm an example of being at a company that was a start-up company. We had our own stock and were independent in that sense. But we were acquired by a German parent that is in more than 60 other countries throughout the world. It owns 700 companies—mostly P&C more than life. And so it's to look at performance attribution throughout all of its companies around the world. How do we tell what the required capital is and set that required capital level for all these different countries? Maybe we need to focus on the risks and come up with some ways to assess and analyze the risks that allows us to make these comparisons. Again, this is not an easy answer, but at the same time it's a fundamental one that needs to be addressed.

Who are the actuarial players? One is the International Actuarial Association (IAA). The American Academy of Actuaries is a member of this organization and each country is a member of that organization. The IAA has worked to make sure that they're involved with the International Insurance Supervisors and the International Accounting Standards Committee (IASC). Again, they're realizing, given what we've learned in the U.S., that it's important to be involved early on. They've established a good working relationship with these groups and this discussion is going on in this environment.

Obviously, the Society is a key player. It is the central organizing resource and it funds research and allow that research to be available. When we want to discuss what actuaries can reliably say to a public body, we have a reference and a way to access that information.

Within the Academy itself, there's a group of task forces and committees. There's an RBC committee. There's a banking task force and there's a financial reporting council, but, also, the Academy is trying to organize a process for dealing with topics, for example, questions dealing with solvency and risk management. And then we could talk about DFA, UVS, RBC issues, whether it's to a life, P&C, or health audience, and whether it's at a state, national, or international level, without a duplication of resources, which has been where the Academy has been historically. And then lastly, the foundation provides a summary of who are the interested parties besides management, researchers, SOA, etc.

I talked earlier about sources of bottom-up change—you know, company developments and research, academic research, without anything changing in the mandated environment. All of this energy is going toward trying to better organize and articulate ways to address these questions. The other thing to keep in mind, through all of this, is to remember we're not trying to come up with a perfect system. We're trying to improve and find a more robust platform with which to base ourselves. For example, I think we can all cite criticisms of cash-flow testing. But if you step back and say how would we feel as an industry if we decided not to do cash-flow testing? When we said that back in 1985, we'd still use those current methods today, I think I would feel a little embarrassed. I'd say, I think we're better than that. I think we can add more to that. And that same question needs to be kept in mind. Do we think we can contribute more to that question?

Last, the key item that needs to be thought through on this is, who is responsible for risk management? Does the company take responsibility for managing its risk and saying we need to understand it? If we're found negligent, our management could be prohibited from holding similar positions in the future. If they feel that responsibility, I think that it'll take on a very different dynamic than feeling as if they're trying to chase or avoid a line in the sand or play the game in the system process. That's all I had to contribute to your question, Mike.

Mr. William J. Schreiner: Dave, I think you've done a service to this group by expanding the context of your comments. We should recognize while we focus on actuarial issues, what are the right reserves, what are the right RBC, all of this is operating at a much broader context. I believe that there are many, people in this room who, before they retire, will work for an insurance company that is regulated by a single federal regulator. Moreover, it's likely that their children may work for an insurance company that's regulated by a single international regulator. So this is a very, very broad context that we're working in, and I think it's good to remember that.

Mr. Sandberg: Thanks, Bill.

Mr. Morris W. Chambers: I'd like to make a correction of what the gentleman just said. When I look around at the people in the room and realize that they're not my generation, I can tell you that it's the people in this room who are going to face the international regulation. Last month IASC made it their charge to put in place this new system and make it available for use by international companies in the year 2005. I don't think many of us are going to be retired by that time.

From the Floor: I would just add that a lot of these issues being discussed over the next few years are going to involve actuaries and they're going to involve, as David has said, the AAA and the SOA, among others. All of these issues that we've talked about today involved one of those groups and I think it's important that these organizations get a lot of volunteerism and a lot of people coming in to help work on these topics.

From the Floor: The Academy has a committee on federal life insurance issues that's working on a lot of the federal issues. I suppose it's wide open for things like tax issues and ERISA, and if you're not familiar with that, obviously, it's the regulation or the law that paved the way for Citigroup to merge and did a lot of work in terms of restructuring our laws around which we work. Within the NAIC, you're seeing a lot of work groups emerge as a part of that law. There's a speed to market work group, a national treatment work group, and a privacy work group. Any others? Consumer protection. If you want to get involved in it, like we said before, we're making history. It's pretty interesting. It's a little bit difficult because they're not as directly actuarial in nature. So you really have to dig for what our angle is, and think about how it's being presented. The group itself is going to be working in the near future; there was recently a congressional hearing involving, I think, national licensing of insurance companies, and as an Academy group, we're going to look into that and decide if the Academy has an opinion and formulate that as the appropriate channels allow.

Mr. Eckman: I want to thank the panel for expanding it beyond the normal reserve issues and into these bigger issues.