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Implementation of SOP 03-1

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Summary: Participants discuss the lessons learned from implementation of the AICPA's Statement of Position 03-1, Accounting and Reporting by Insurance Enterprises for Certain Nontraditional Long-Duration Contracts and for Separate Accounts. Specific topics include: reserves for guaranteed minimum death and annuitization benefits; implications for DAC amortization; accounting for sales inducements; application to universal life contracts; and variations in practice. At the conclusion, participants are better able to understand different approaches used within the industry to implement SOP 03-1.

MR. RICHARD D. FARRELL: I'm with Ernst & Young, and I'm a senior manager in the Atlanta office. I've been with the firm for about four years. Of course, that coincided with the time SOP 03-1 came in, so I've done a fair amount of work with the implementation of the SOP, as well as audit work. To my right is Kevin Kehn. Kevin has been with Allianz for about nine years, his entire actuarial career. He is a senior actuary in charge of fixed annuity, life and long-term care (LTC) financial reporting and analysis, and he's been doing this for about six months. Prior to that, he was variable annuities financial reporting manager.
This is an open forum. For those of you not familiar with the different types of formats that the Society has, the open forum is somewhere between the workshop and the panel discussion, as far as audience participation. We do have an outline of some comments, some things we'll talk through, but hopefully we'll have enough questions and interest from the audience on particular areas that we can go off track and talk about them rather than stick strictly to the script. At any time, if

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NOTE: The chart(s) referred to in the text can be found at http://handouts.soa.org/conted/cearchive/valact05/2005valact_handouts.htm.

you'd like to stop me or Kevin, raise a question or just talk about something else, feel free. With that, I'll pass it over to Kevin, who will talk about SOP 03-1 from the company perspective.

MR. KEVIN L. KEHN: My experience on the SOP is basically on the variable annuity implementation. I'll provide just a little background to start out with. The SOP did define separate account presentation guidelines and related financial statement of disclosures. One thing we had to do at Allianz for the GAAP audit report was to put together some separate account by risk category exhibits. It wasn't a whole lot of work, but it did take some accounting and actuaries working together.

Other disclosures that were in that statement that we had to do were some guaranteed minimum death benefit (GMDB), guaranteed minimum income benefit (GMIB) and risk versus account value exhibits for each type of benefit that they had. So it took a little bit of time to roll it up into the right categories, but there were not a lot of issues with doing that. Other issues on the SOP, obviously, are the reserve methodology for certain contracts—and that's mostly what we'll cover in my time here—and also the capitalization of sales inducements. That's just basically treated just like deferred acquisition cost (DAC).

Basically, the reserve is just an accumulation of your revenues generated by a contract that you'll pay for future policyholder benefits. The amount that you'll increase your reserve is basically a function of how many assessments you'll get. To get the portion of the assessments that you'll have to calculate, there's just basically a benefit ratio that is equal to your present value benefits divided by your present value of assessments. It's similar to a DAC k-factor calculation. To determine the portion of the assessments, the issue that we had was that we wanted to be consistent with DAC. We basically took the portion of the estimated gross profits (EGPs) and took out the expenses and the commissions and things like that. We just took the revenue components out of the DAC EGPs and used that for our assessments. Then we used the same interest rate that we use for DAC to accumulate it.

The issue that we had, since we wanted to be consistent with DAC, was that with some of our old data, our old blocks, we couldn't dissect away. We would have a total income statement, in which we'd have all the assessments and the expenses and things, and it was difficult to break that up into the blocks that we needed. We really didn't have the details. A lot of times actuaries don't have perfect data, so we had to make some assessments or judgments as to where the information should go.

Basically, with the reserve methodology you'll cover variable annuity guarantees, and it also hit two-tier annuity annuitization benefits and some life and things like that. For the variable annuity guarantees, we hit GMDB and GMIB. The guaranteed minimum accumulation benefit (GMAB) and the guaranteed minimum withdrawal benefit (GMWB) were not included in the SOP because they fell under FAS 133. The

GMDB and GMIB have been covered in multiple sessions so far. But for the death benefit and the income benefit, you basically need an additional reserve to pay for these contract benefits.

The two-tier annuity hasn't really been covered that much, so I'll hit that a little bit. Basically, it's a fixed annuity that has two account values; one is a lower tier that is basically available upon cash surrender, and the upper tier is available upon annuitization. The base GAAP reserve for a two-tier annuity is the cash surrender value, and then the SOP covers the additional reserve that you need to hold or the annuitization value.

I'll just highlight the potential issue areas that I faced when I was doing the annuitization, and then when we get to the general discussion, I'm sure we'll hit additional areas also. They included the stochastic projections when you're calculating your future guarantees, especially on the variable annuity issues—the GMDB and GMIB use some stochastic projections; the need for consistency with DAC; and the possibility that the reserve could go negative. We actually faced that once. Another issue was a projection time period, which was just one issue that we had to deal with at the beginning.

A lot of people use stochastic projections for generating their future death benefits and income benefits. The issue is how to consolidate these into one reserve. I know there have been a couple of articles in the *Financial Reporter* just this year. One advocated the second method, which is to calculate multiple benefit ratios and then consolidate those into one. The other popular method is basically to consolidate all your assessments over those scenarios and then consolidate your benefits, and you calculate one benefit ratio from that area. I'm sure this will be a topic of discussion as we go forward, but at Allianz we chose the first, and I don't know if we're even contemplating the second. We took the first one because one, you're able to get the benefits right into the DAC. You're calculating an average benefit, so you can put those right into your DAC stream, and you really are consistent there. You can see if your benefits are consistent with what you expect going forward.

As for the consistency with the DAC, I know the example in the SOP was very simplistic, but it does show the assessments and the benefits directly going from the EGP into the reserve calculation. But how do you stay consistent when you're doing stochastic projections? We've based our consistency on assumptions. If you're doing a deterministic DAC model, you use similar assumptions—surrender assumptions, annuitization assumptions—when you're doing your stochastic runs and that keeps everything consistent. Also, you have to consider aggregation levels. At Allianz we do a product issue year level for DAC, so we're doing the exact same thing for aggregation levels on the reserve side, and interest rates are also held consistent.

The possibility of a negative reserve is something we saw for a new block. If a large early claim happens that isn't expected, it can push your reserve negative. The

issue that we dealt with was, do you allow your reserve to go negative? Do you floor it at zero, or do you hold it at some arbitrary level that's higher than zero? You know that you have some type of a risk out there for the rest of your block, so do you hold the reserve that's either zero or negative? What we did was to hold an arbitrary level higher than zero, just so that we have some type of reserve for that block.

Here's a little example of why this happens (Page 7, Slide 2). You're assuming assessments of 100, 105 and 110. You're basically withdrawing at 5 percent a year. You calculate your benefit ratio at 5.66 percent. You have your assumed roll-up of your reserve. It starts at zero and ends at zero, and your expected claims are zero for the first year and then 10 and 10 in years two and three. Now if you go to actual experience and say everything happens to be the same, but you have a really large outlier in the first year, if you have a claim of 20, your benefit ratio does increase from 5.6 to 12, but all else stays the same. You are putting in higher assessments, but that large initial claim makes your reserve go to zero. Depending on your aggregation level, this may or may not occur. If you're aggregating at the product level at one simple year, you probably wouldn't have this issue. But if you aggregate at the product issue year level, one bad issue year—you could have a couple of contracts invested in bad funds or something and then have a claim—and you could have a reserve of less than zero.

The last issue that we dealt with on the variable annuity side was: What was the correct projection time period? We wanted to be consistent with DAC, so we started out with the expected lifetime of the contract of 15 or 20 years. Then we started looking at it and what will happen after 15 and 20 years. You might have some contracts that are still on the books, but your reserve will be zero. So we adjusted our time period so that it's open-ended. It's always X number of years from the valuation date. That guarantees that even after your DAC goes to zero, you'll still have a reserve on the books for whatever business is still there. Those are the issues that we dealt with, and I will hand it over to Rick for the auditor's side.

MR. FARRELL: I'll touch on some other areas of the SOP, as well as some life insurance implications. Annuitization benefits were also part of the SOP. Kevin touched on the two-tier product and how you need to set up a liability annuitization benefit to create some liability in that case. But the plain vanilla product could have an impact, too, to the extent the annuitization benefit is fairly rich and the likelihood is that you'll be paying out more than the account value at that point in time of annuitization. So you should be setting up a liability in those situations. We also learned that this liability does not apply just to FAS 97 products, even though the bulk of SOP 03-1 applies to FAS 97 products. Annuitization benefits could apply to FAS 60 policies as well.

What we have seen in our practice in general is that most companies didn't set up a large annuitization benefit. There were a couple of reasons that was the case. One was that the benefits are off into the future and there'll be some heavy discounting

between now and then. And as we all know as well, the rate of annuitization is very low. So, if you factor in the probability someone will annuitize regardless of how attractive these options are, that will reduce the present value substantially. Furthermore, not all annuitization benefits are rich. Many are lower than the discount rates. A current mortality rate at a 3 to 4 percent interest rate will not generate any excess liability as well. So for the most part, we saw minimal or not a lot of liability on annuitization benefits across the board.

One interesting aspect of the SOP on the GMIB—in which, as the name applies, future income streams from the variable annuity are guaranteed—is that there's a disconnect between the direct and the ceded piece. For the direct, the accounting is based on SOP 03-1. Most of the reinsurance contracts are based on what's called a net settlement-type structure, in which someone who chooses to annuitize and then reinsure then passes back a lump sum of money equal to the present value of those payments or something akin to the present value of those payments. Therefore, the accounting on that ceded piece is actually FAS 133.

So an interesting possibility could be that a company might say, "We got rid of all of our GMIB exposure. We reinsured it 100 percent. It's gone." However, the accounting will not reflect that. You won't have a zero bottom line year after year. Instead there could be some noise or likely will be some noise between the direct piece and the ceded piece not matching up—SOP 03-1 versus FAS 133, which don't give you the same numbers.

We found, and as I'll get into a little bit more in a minute, that because there was a rush on the implementation, a lot of companies found this to be more of a job than they anticipated. The annuitization piece kind of got left to last in many cases. If there was one area we would point to for improvement, it might be the annuitization benefit—going through all of that and being a little more rigorous on that and doing a little more analysis, if that had been the case in many applications and implementations.

Let's talk a little bit about sales inducements, too. Kevin touched on sales inducements as well in his presentation. But as far as the SOP goes, there are basically three categories they're including. There's the bonus interest, the day one bonus and the persistency bonus. Most times when you think of a bonus, you would think of the day one bonus. Someone pays X dollars into the deferred annuity contract, and at that point, the company grosses it up by 2 or 3 percent. That would be the day one bonus. The bonus interest, as the name implies, is an additional interest credit paid in addition to the regular interest credit, and normally this wears off after a point in time. I'm sure most of you are familiar with persistency bonus. After a point in time—10, 20, 25 years or whatever the case may be as defined by the contract—if the policyholder still has that annuity in force, the company will pay an additional amount in the account value.

Sales inducements are capitalized and set up as a sales inducement asset if certain

criteria are met, and here are the three conditions. One, it must be identified in the contract at inception. In other words, if it's something that the company decides to pay out of the goodness of its heart or it's just something that's referred to in the marketing materials or an add-on later on, that would not qualify this condition. The second is that it credits a greater amount than a similar contract without a bonus. In other words, you want to have an apples to apples comparison. Here's contract A, and here's contract B. B has the bonus. A does not. B's rate is therefore higher than A's. So that has to be one of the tests, too.

When SOP 03-1 first came out, a lot of people zeroed in on this one and took it very literally. They said, "What if we have a contract, but it's not exactly like contract B? There's a little bit of a twist or a little bit of change. If we follow the language literally, we can't make this test. We can't deem it to be a bonus." I think that sort of deliberation went away fairly quickly. Most companies kind of said, "In the context of things and putting on our 'reasonable' hat, we can make that determination, make that comparison, with a similar product." So not too many people got hung up on point number two here, but at one point it was a big issue.

Finally, the ongoing credited rate is lower after the inducement period. So if you're paying this bonus, it's basically give and take before the opportunity to get the bonus, to get this 2 or 3 percent of the initial premium paid into the account. Then at some point later on, your credited rate will pay for it. You'll be lower than if that were not the case. Once again, this is an area of judgment to determine that's actually happening.

Sales inducements are amortized similar to DAC. They use the same EGPs. In fact, there are different treatments in how this is being done. Some are lumping the two together, amortizing them together. Some are just referring back to the same EGPs, but actually keeping them separate. They are supposed to be reported separately on the financial statements, but the whole mechanics of how it's amortized, including the unlocking process and all, is exactly similar to DAC for the same products. As I mentioned, it's identified separately from DAC, and any sales inducement practices prior to the SOP adoption were grandfathered. Basically you didn't have to go back and recalculate all these sales inducements that you might have had for the past 10 or 20 years prior to the SOP implementation. But at the point the SOP implementation took place, which for most companies was January of last year, you would begin to calculate everything according to the SOP.

There are some murky areas, and when we get into the Q&A later, I'd be interested to hear if people have run across them and what the resolution might be. One is recurring persistency bonuses. Let's say there's a persistency bonus paid after year five, 10, 15, 20, 25—every five years forever. This person has the contract for 95 years, so there will be one in year 95. If you think about how capitalized expenses are typically set up—and I'll use the example of commissions—if you have a commission that's level in all years, you're not permitted to capitalize that because there's not that high and low effect that you would typically use to determine how

much is capitalized. The difference between that high point and the low point is what's allowed to be capitalized. In other words, if you have this recurring persistency bonus every five years, there's never the point where it gets to the ultimate zero state. It's always coming back. So there was some argument about whether that should be permitted as a sales inducement.

Another murky area involves decrements for persistency bonuses. There's a little bit of conflict in the SOP itself. There was an appendix that gave a numerical example, and it wasn't quite clear what was meant by that. The treatment was kind of goofy as far as what they were doing with decrements and all. You can also talk about whether you should be reflecting mortality in setting up this persistency bonus, sales inducement assets. There have been different schools of thought, and I don't think there's been any real definite guidance that has come out to make this clearer one way or the other since then.

The third murky area is return of cost of insurance (COI) charges. If you have a certain product that's been around like a persistency bonus for 10, 15 or 20 years and the provision is that you would get return of the COI charges paid to date at that point, is that in the same category as the sales inducements or not? You can see it's a little bit different, but it still is pretty close. So I will be curious to hear if any companies have decided to put this in one category or the other.

Overall, implementation with regard to sales inducement assets has not been very eventful. It's been kind of boring, in fact, primarily because it's just like DAC. It's being amortized similar to DAC, and companies have been very experienced with that ever since FAS 97 came out, so it's nothing new in that regard.

Let's talk a little bit about some of the life insurance issues. SOP 03-1 originally created some confusion. There's the story that some of the life insurance provisions were in there and then changed at the last minute by the AICPA when they were drafting it due to some industry comments. I think it kind of shows, as far as what the final product came out as, that there was a little bit of last-minute change, and it's not as polished as the rest of the SOP. This was clarified somewhat later last year and, of course, this was six or nine months after companies started to do this and started to report on it. But FSP FAS 97-1 and TPA-6300, in case somebody wants to look it up, were two pieces of guidance that came out later in the year and helped clarify some of the issues on life insurance.
In particular, unearned revenue liability was one of those areas in which there was confusion. Of course, companies have had unearned revenue liabilities on life insurance since FAS 97, so that's nothing new. Typically, they would be setting up for those first-year policy fees or expense charges, which varied by duration. However, now with SOP 03-1 there was the question, does that supersede FAS 97, or what's the relationship, how does that all work together? The conclusion that the FSP basically came out with is that no, it does not supersede. The SOP focuses in on one small subset of the types of situations in which you can set up an unearned revenue liability, that being where there are profits followed by losses. Otherwise,

just keep doing what you've been doing with regard to unearned revenue liability. So if it's with regard to, perhaps, that first-year policy fee issue, then that still continues to apply, just like you did before. There are certain rules. To give you a brief overview, that's where that issue came in.

Essentially, you may need an unearned revenue liability now for reverse select and ultimate COI rates, even if there's no SOP reserve. In other words, if there are profits followed by profits from the SOP, you might say, "We're off the hook. We don't have to set up an additional liability." However, now this FSP came in and said, "Yes, you do." If you have five years of level COI charges and then a slowly increasing YRT-type schedule of COIs afterwards—and you could be because you're front-ending those mortality gains—you may need to set up an unearned revenue liability in that situation.

Mortality gains and losses as far as profits followed by losses, once again is how the SOP is written. Many people looked at that and took it literally again. It's mortality gains followed by mortality losses. The industry—and in particular, a lot of actuaries—said, "Wait a minute. That's not how we price products. We don't price products with a mortality bucket, an interest bucket and an expense charge bucket and make sure all of those are self-sufficient and contribute equally to the profitability of the product. Instead, we take a more holistic approach in which we have mortality going on and interest going on—all these things going on at the same time. We're concerned with the net impact of all those interactions on how that's profitable or unprofitable." So the SOP is kind of off base as far as that goes because it's not consistent with how companies actually are looking at this and pricing in real life.

Basically the guidance said that you can look at everything in total in terms of determining whether you have profits followed by losses in the product. So there was a big change, I think, for some companies that were thinking they had to set up additional liability because on mortality alone, there were profits followed by losses. Instead, by looking at everything together, they suddenly said that things are okay because now we have profits followed by profits. Some of this guidance cleared up no-lapse guarantees and other product features that have incremental mortality or morbidity risks, which also could be like an LTC rider attached to a universal life policy. I think maybe a better term or better way to look at this would be they're non-integrated. In other words, they're not closely matched up together. It's an apple and an orange matched up together instead. In that case, there is a separate reserve needed for that incremental piece. You can't look at it in total along with the base contract. You have to look at it separately, on a stand-alone basis.

FAS 113 is not a new statement. It's been around for a while. They do things sequentially, and we're up in the much higher numbers than 113 now. We're taking some shortcuts, taking some liberal approaches with FAS 113 since it came out and, in many cases, it didn't make a lot of difference. The auditors would say, "You're

fine. We don't think it will impact your bottom line dramatically, so we don't have a great argument." It's not the letter of the law, but instead now it's not a big deal. However, FAS 113 in conjunction with SOP 03-1 can give you significantly different answers. What I mean by this is instead of netting everything together and looking at everything on a net of reinsurance basis, you should be looking at direct. You should be looking at ceded. Then once you calculate all those separately, at the very end put them together. So the cost of reinsurance is spread over the life of the contract. We're not netting the direct cash flows and reinsurance cash flows and then spreading that out. Instead, we're just looking at cost of reinsurance—it's almost like a separate expense—and spreading that out.

There are other implementation issues, and I think Kevin touched on the first one, the need to recreate the past. Let's say you want to find out your actual GMDB claims over the past several years prior to 1-1-04, when you implemented this. Many general ledger systems were not capturing this information. It wasn't critical. It wasn't something that was important. A lot of companies went through some creative work to do their best job in coming up with what they thought the old stream of DAC benefits might have been and maybe even in some cases what the assessments would have been prior to the date. Of course, keep in mind that it's not as simple as saying let's take the current in-force as of January 1, 2004 and basing it on that group of policies, because there was a larger group of in-force due to terminations in prior years. So you also had to go back and recreate what the in-force would have been in prior years to determine what your actual death benefits paid would have been.

Which stochastic generator was a big question. I think for those companies that have implemented the SOP, that decision's already been made. But the choice makes a difference. For example, consider a regime-switching methodology in which you are basically saying we're in a bull market, or we're in a bear market, and you go back and forth and put a little bias on your scenarios, depending on which market you're deciding to be in. This would tend toward higher reserves because if you're in the bear market, you'll have those more prolonged years of downward Standard and Poor's (S&P) or slow growth in the S&P. Consequently, you'll have greater GMDB exposure in those cases.

One big question and a big issue, I think, we saw a few of our clients have to grapple with is mean reversion, in which you're using a formula to determine your equity growth on the DAC side. For an example, let's say you have an assumption that you'll revert to the mean over a 10-year period of time. If your actual S&P growth has been X percent over five years, then you need something to counterbalance that as your projection over the next five years so that you still come back to that 10-year, long-term S&P average. As Kevin pointed out, if you're using stochastic scenarios and you have hundreds of thousands of these, how do you tie the two together to make sure you're doing things consistently? I saw some techniques used. I don't think anyone has the right answer yet, but it is kind of tough to make sure you're abiding by the SOP's requirement that DAC assumptions and the SOP 03-1 assumptions are consistent.

What about dynamic policyholder behavior? At this point, once again, I think this is a function of let's get the model going. Let's get it up and running. We'll worry about other things later on. Dynamic policyholder was one of those areas that tended to fall between the cracks. A lot of companies aren't going to any great degrees to put in the extra lapses or other dynamic factors in the SOP 03-1 models.

For some companies that we deal with from our audit perspective, it's not hours, it's days to run their models. In fact, one in particular is using its benefit ratio calculated as a previous month-end because it takes so long for them to run their models. Maybe it's overkill, but I also think part of it is that it's not generally the best systemized approach to building the models. Some are Excel Access database combinations and inherently, that will run a little bit longer than if you had something running on a more refined platform. So model run times have tended to be an issue and then, overall, implementation took a lot longer than most anticipated. There was a rush in November and December 2003 to get things ready, to get things going, and also still continuing over until January or so of 2004, as companies still were scrambling to get their models up and running. So that was an issue.

Earlier this morning there was the GAAP issues session, and they talked a little bit about SOP 5-1. I think there's a very strong parallel between the two in that the internal replacement one seems like it's playing the same story all over again in that this is pretty complicated. It'll be upon us fast, and everyone needs to start now rather than waiting until the third quarter next year because it'll be upon us. It will be too late.

That's the end of our prepared remarks. I have a few suggestions as far as what we can do for the remainder of the time. We can talk about interesting company-specific implementation issues as one. That might be the top choice. The second choice would be not so interesting company-specific implementation issues. With that, what did we not cover that people were interested in hearing about?
MR. CARL J. NAUMAN: I'm from GGY Inc. I was interested in hearing a little bit more about the scenarios—how many you generated, how you've generated them, how you calibrated them.

MR. KEHN: We went with a couple of hundred, I believe. How they were generated, I'm not sure. For embedded value, if they had a thousand scenarios, we pared that down for 200 just because it would take too long to calculate each month. I think we took a grid approach and took scenarios from each grid and got it down to 100 or 200 scenarios.

MR. NAUMAN: How long did that take you to run?

MR. KEHN: We used distributive processing, so I think we got it down to about four hours using about six machines.

MR. FARRELL: I'll just take a quick poll of the audience. Is anybody using fewer than 100? A couple of people are. Is anybody using the 100 to 200 range? A couple of more are using that. How about 200 to 500? It's a pretty equal distribution so far. Over 500? Actually, that might be the winner. Does anybody want to speak to the calibration? Do you have any special secrets that you want to share? Is anybody using the Academy scenarios at all? I know of at least one company that does. Are you doing anything special to massage those or just taking them as is?

MR. PATRICK D. LUSK: I'm with Merrill Lynch Insurance Group. I have two questions. I'll ask them both, but maybe the easier one first. What unlocking frequency are people doing for the SOP reserve? Is it typically quarterly, or is it more frequent or less frequent?

MR. KEHN: For unlocking, we're consistent with DAC. Whenever we do a DAC unlocking, we do it all at one time.

FROM THE FLOOR: I see.

MR. FARRELL: I've seen a lot of quarterly as well. Is anybody doing anything different or seeing anything different?

MR. LUSK: The other question is maybe more of an emerging issue. Are you familiar with the new lifetime structure, GMWB benefits that are lifetime in nature rather than a five- or 15-year period?

MR. KEHN: A little bit.

MR. LUSK: It seems to be more a gray area between the SOP and FAS 133 treatment of those because it clearly does now introduce a lifetime contingency. The early read seems to be maybe 60/40 in favor of an SOP-type treatment, and we've heard talk of maybe one company that is even trying to do some sort of bifurcated treatments. Are there any comments from the panel or anyone here as to how those are being treated?

MR. KEHN: Just some background for the group, too. Because this lifetime GMWB has more of a mortality element to it, that kind of puts it now back into the SOP 03-1 camp versus the plain vanilla GMWB benefit that's been around for a while. That falls into FAS 133 kind of treatment. So that's kind of the difference. It's in-between the two. I agree with you. I think there's been a lot of back and forth. I've heard both sides, and I think 50/50 or 60/40. It's probably in that camp.

MR. FARRELL: Has anybody else been playing around with that or have a perspective on what it might be? I'm curious. I'll just ask a general question. At this point, I assume everyone's implemented the SOP, or do we still have outstanding issues we're trying to iron out? Is anybody in that category?

MR. TIMOTHY C. CARDINAL: I'm with Ohio National Financial Services. It's more of an understanding issue. Our internal auditors and reviewers tend to like rules of thumb, so for life insurance annuities, we have our reserve for a thousand and so forth. We have our account value roll-forwards. For here, it's more of a black box. We also have reinsurance. We have very few data points so, first, the internal auditors looked at, stat did this, and GAAP did this. And then you say, the direct went up, and the net went down, or the stock market did this and so forth. So it's sort of like what's a rule of thumb, and how do you get your arms around it to be comfortable?

The second thing is then trying to do a business forecast. I'm also having to explain my earnings difference. Here's this black box. I don't understand it. I'm not hitting my forecast. So, when I revise my forecast, what's my answer? I'm now down to the point where I don't have an explanation. I don't know what will be happening for the rest of year or let's say for '06, and that's probably my biggest issue.

MR. KEHN: Have you found the SOP impacts are causing a lot of noise in that?

MR. CARDINAL: Enough. It's also just with our whole internal control environment lately. The micrometer has gotten a lot closer. It used to be that if you were off by $500,000, it was sort of a shrug of the shoulders kind of thing. And now if you miss your earnings target on your forecast and you're off by $100,000 or a couple of hundred thousand, there's more of a need for an explanation. Well, AG-34 is different than the SOP and hence okay. Then you get into the forecast saying, the claims are what they are. But here, they want an explanation. If the stock market goes up 8 percent, it has this DAC impact, or the market does this and so forth. There's more of a desire to understand what's going on than before. And at this point, I can admit that I'm clueless. I have an idea, but I'm more likely to miss it than I am to get it right.

Because the benefit reserve under the SOP is based on a set of scenarios, usually you don't have the mean reversion impact in there. As I mentioned a little bit earlier, you can use some techniques to say we're consistent with the mean reversion impact, but I don't think you can quite get to the point where you have a smoothing like you do in mean reversion in the SOP just like you do in DAC.

MR. MATTHEW P. CLARK: I'm from Ernst & Young. You talked about benefit ratio calculation, whether you use the assessment like a benefit ratio within the stochastic or outside, and it has to do with whether you have a stochastic DAC or static. I think most companies actually use static DAC.

MR. FARRELL: It's kind of a physical process to get the DAC or get the SOP 03-1 benefit reserve information and plug that back into the DAC to make sure they have the change in benefit reserve properly implemented in their DAC. Consequently, because the two aren't lining up, they have a separate benefit reserve calculation,

or benefit calculation in the DAC schedule, which is not entirely consistent with the one they're using in their DAC model. It produces some noise and, as Matt was saying, it doesn't amortize down to zero at the end of the amortization period. Consequently, we've been trying to get them to understand the difference, but I think that is an issue when you have the two different models and they're not lining up closely.

MR. HOWARD L. ROSEN: I'm from ING. You said you wanted a laundry list, perhaps, of implementation issues. I thought about it, and four came to mind. One is continuing inconsistent guidance on issues. Two is the question of whether the test is a once and done test or whether it has to be revisited. For example, if you looked at a block of business, whether new or in-force, and when you looked at it initially, there was no SOP reserve deemed necessary. If you go down the line five years and, lo and behold, your experience doesn't turn out as anticipated, do you have to set one up?

MR. FARRELL: Yes.

MR. ROSEN: And if the answer is yes there, then the converse becomes an issue. if you set it up initially and you go down five years and, lo and behold, this thing is so fat with profits that you don't know what to do with the money, is your reserve then obviated?

Another is something that you indirectly referred to in your talk and that is the definition of reverse select ultimate. The example that you gave was if you have five years of level COIs, you have to defer it. It's not clear to me that you do because part of the literature talks about being able to take into account the fact that there is a benefit derived from the underwriting process. So it's clear if you have a COI structure that is declining for a number of years, then levels out and then goes up, then maybe you have an issue. But when you get down toward something that slightly declines or is level or even slightly inclines, is that reverse select ultimate? That's not clear.

The last issue that came to mind was the concept of the level of aggregation. Typically, when you aggregate you're spreading your risk and reducing the need for reserve. In this particular situation, it can work exactly the opposite. For example, if you have a product where an SOP is required on a stand-alone basis and then you aggregate it with two, three, four, five or 10 other products and that one product generates a reserve that's sufficient to absorb the other gains in the other products, your SOP reserve on the aggregated block is enormously greater than your SOP on the initial block, and the incidence of amortization is different, too. So those are a few of the minor issues that are out there.

MR. FARRELL: Inconsistent guidance is something that I don't think this group can do too much about today. But it has been the case on the SOP. Not to defend that, but the SOP is pretty complicated. It gets into some pretty difficult issues, and most

of these are written by accountants. To the extent that we, as actuaries, have certain needs and certain concerns, the accounting profession doesn't quite understand or find it to be a priority as much as we might.

I think we heard earlier today an example of what they would do if they had a situation where the opposite of what you described occurred, where instead of profits followed by profits, you have profits followed by losses. Do you now set up an SOP reserve in that case? Not to be controversial, but I differed with the answers that the panel gave this morning. My understanding is it is once done. You set it up, and you're done with it. If you get into trouble on the product, then, yes, you go into the aggregation and you start to do the loss recognition testing, just like you do for any other FAS 97 product. But if you get too much DAC or not enough benefit reserve, I still believe the answer is you start to write down DAC first and then increase reserves. So I'm not sure whether everyone would agree with the answer that was given at the earlier panel this morning.

And you're right. For the reverse select ultimate, maybe five years level and then increasing thereafter that was kind of a tame example. If you had something like you described, where it's decreasing significantly for an extended period of time and then level or starting to go back up slowly, that would be more of an extreme example of reverse select ultimate. So your point is taken. My example was probably not the best. Again, definitely level of aggregation makes the difference.

With the guidance that came out last summer, you have to aggregate at least at your DAC cell level, but you can go more granular if you wish to in that. So I mean if your DAC cell incorporates several products with all those varying characteristics, then by all means, it can give you those bizarre results, too, so I agree.
MR. MICHAEL P. SPARROW: I'm from Nationwide Financial. Could you speak to practices with respect to reflecting hedging in SOP calculations? And getting off track a little bit, you have similar issues with your separate SOP calculations and trying to get those back into your DAC EGP streams. Can you speak to things with respect to FAS 133 and hedging kind of by extension to your DAC processes?

MR. FARRELL: So you're hedging a product. It qualifies under the SOP?

MR. SPARROW: Correct. I mean some companies are doing hedging with respect to their GMDB. So obviously, there's a big carryover there and, more importantly, for GMIBs. But with your other living benefits, you have a similar type issue in how you will reflect this in your DAC model.

MR. FARRELL: It's kind of like what we were talking about earlier with the DAC models and the benefit ratio models being of different levels of complexity. I think we typically find the hedging model, being the more complicated, is at one of the far extremes. It looks at things from a different angle, a different perspective. As far as getting that into the SOP model or even the DAC model, there's a lot of shortcuts taken to try to replicate what they think the impact of the hedge would be

in the various scenarios.

Do you find, as far as going the other direction, that the results of the SOP model have a significant impact on the hedging models?

MR. SPARROW: We don't integrate. The hedging is more focusing on the economic risk than the accounting.

MR. FARRELL: We hedge our GMDB and GMIB also, and one of the issues that we have to deal with is not really an implementation issue, but explaining the results to management. Your hedge is moving up and down with the market, but your reserve is basically just building. Why is there this mismatch? And are you really hedging your risk if your reserve is not moving together, like a FAS 132 reserve moves right with your hedge? Do you have that type of an issue?

MR. SPARROW: We definitely have that issue. I mean with our FAS 133, liability is growing and the SOP liabilities and so forth. All of these things are moving in different directions and even the nature of your hedging may not necessarily do as you expect, if you're doing dynamic hedging, if you're not hedging vega and some of those other things. For example, your FAS 133 liability has that embedded in the calculation, but your hedge isn't matching to that risk. It really makes it difficult to explain things to management.

MR. FARRELL: Absolutely. Is anybody else seeing the inconsistency of the issues with hedging in their SOP models? Anything in particular that you're seeing, other than what we've already talked about?

FROM THE FLOOR: Kevin, you talked about the possibility of a negative reserve and setting up some kind of arbitrary minimum. If you're willing to talk about it, or maybe Rich can talk about it, what companies are doing? What are they basing the minimum on? Is it just something as simple as percentages of future benefits, or where are those calculations coming from?

MR. KEHN: We basically try to do like a one-year term on the net amount of risk, just a simple level to hold something. You know that there's a risk out there and you'll have claims on it, so it didn't really make sense to us to have a zero reserve, much less a negative reserve.

It was just a new product, and since we do it by the issue year level, we had a couple of large products that invested in bad mutual funds, and they had an excess large net amount of risk. They happened to have claims, and they just overtook it. So it was kind of a weird situation.

MR. FARRELL: Has anybody else seen this, too?

FROM THE FLOOR: Is the intent to set up a reserve for liability or to smooth

earnings appropriately?

MR. KEHN: It was just a setup for liability because the rest of the block obviously has a risk to it.

FROM THE FLOOR: Is that GAAP though?

MR. KEHN: That's a good question.

FROM THE FLOOR: Are the auditors OK with that?

MR. FARRELL: It's prudent. It makes sense, but that doesn't mean it's GAAP.

FROM THE FLOOR: Actually, I think the model that's used for the GMDB is really to take revenue that you had, that you've gotten, that you need for future periods. In fact, it goes back to one of the paragraphs in FAS 97, as opposed to setting up a liability for future claims. So the model is to aggregate all the claims or all the revenue that you've collected that's attributable to the death benefit and then subtract from that your actual death benefits. If you look at it that way, I would think if you had a large claim in the early years that the reserve should go down to zero, unless that early claim affects your outlook going forward and you need to unlock.

MR. FARRELL: That's a good comment.
FROM THE FLOOR: I want to talk a little bit about on the life side the SOP and particularly combo products, universal life with LTC. Rick, I heard you mention maybe treating the LTC separately in one of the technical practice aids.

MR. FARRELL: Right.

FROM THE FLOOR: When the benefits integrated with the product in a UL contract, I'm just wondering whether there's any insight to treat FAS 60 separately or to integrate it in because it's affecting the death benefits and how the money's coming out of the contract, or treat it as an excess benefit in a way, or whether if you do that under this SOP, whether you then must start using stochastic morbidity to reflect what will happen with those excess benefits and other things like that. It gets kind of complex.

MR. FARRELL: There are a lot of issues that go along with it. The easy route is if you say it's not integrated and it's a stand-alone, then you just look at it all by itself. But you have an excellent point, that it is something that if it varies and goes along with the mechanics of the base UL contract, then you look at the two together. As far as stochastic morbidity, that would be more in the spirit of what the SOP is looking for. That's where I would go with it, but I don’t think there's anything real clear that says you have to or that's what everyone is opting to do. Not too many of those products exist, so you're kind of blazing your own trail.

FROM THE FLOOR: I have a quick question back on the possibility that the reserve could go negative. The SOP, as I recall, said that when setting the benefit ratio, you consider a range of scenarios. The interpretation that predominately has come out, and I'm using it too, is that means the mean. However, the SOP itself doesn't say "the mean." It says consider the range. One of the things that potentially will drive this is that we have a volatile benefit. You don't know where economic scenarios will end up—who will die, what will happen.

Is part of what's causing the negative reserves the fact that we've assumed the mean? Nobody prices these things at the mean. They're being priced at the 90th percentile or somewhere out near the tail. In essence, what is happening is that for those charges that have been collected, that percentage of the assessments, using the mean releases those before they potentially would be necessary. I just would appreciate any comments on that.

MR. FARRELL: That's a good point. I guess I would think back to DAC and the whole premise on a lot of which DAC is built, GAAP is built, is best estimate. Is your best estimate the 90th percentile or somewhere way out in the tail, or is it the average? Maybe you could argue that your best estimate is the median or some other thing a little bit different than the mean. But I don't think you can really get to the point and still feel you're following what GAAP is trying to make you to do by picking something that will cover the wildness in a scenario like this.

It'll soften it, but as Kevin showed here, the benefit ratio went from 5.6 to 12. That had somewhat of an impact, but still you saw the EGPs went away. Does anybody use anything other than the average when looking at a set of scenarios? It looks like the average is predominant.

FROM THE FLOOR: I had actually been looking at a concept of using something closer to a pricing, maybe at about a 75th percentile or something, to recognize the fact that we priced at a higher level. But I believe among the audit community and the rest of the industry, it seemed predominantly let's go with the mean because of the best estimate and such. Something that will be considered over time may be that this is very different. The types of benefits that we're getting into with the GMDBs, the guaranteed benefits and such, are a relatively new phenomenon over history, and they will have some of this fluctuation. Maybe it's not the best estimate or such, but in some ways, it may be because when we're pricing these, when we're charging people for them, if we were charging them at the mean, we'd be able to charge probably one-tenth of what we're charging for these things now, and we're not.

MR. FARRELL: That ties in well with Mike's comment, too, on the hedging. It's different. Like you said, it's a new world with new sorts of products, and SOP 03-1 got to the point where we were a few years. It was state of the art then, but it quickly will be outgrown now as things change.

MR. DAVID A. STALKER: I'm with AEGON. Now this is very new to me, so this is probably a basic question. You're adding GMIB riders to an existing block. What are the revenue items that you include—from the beginning of the policies or the beginning of the riders?

MR. FARRELL: It should be like adding them this year or host implementation of the SOP.

MR. STALKER: Yes.

MR. KEHN: Have the products been in force for a while?

MR. STALKER: Yes.

MR. FARRELL: You had the GMDBs as well?

MR. STALKER: Yes, they would.

MR. FARRELL: So they already had the GMDBs since issue, and the riders are just being added now.
MR. STALKER: Yes.

MR. FARRELL: I guess the issue is whether you build one big DAC schedule since issue or whether you start your EGP schedule for benefit ratio purposes from the point they're added instead.

MR. STALKER: That's right, yes. The issue is, of course, that from point zero, you would have a reserve. They're explicit charges, but under the SOP, you're supposed to use all revenue items, are you not?

FROM THE FLOOR: Yes, but I think that changes your pattern of income.

MR. FARRELL: It would seem strange, though, to reflect the income as part of the amortization of the benefit, the benefit ratio calculation, prior to when these GMIB policies were there. Let's take an extreme example and say these were added 10 years after issue, so you had 10 years of income. Then these GMIB policies were added. It would not seem to be really kosher. It would seem to be kind of weird to go back to issue and reflect everything that's happened until then. It would seem you'd start at the point they're added and move forward. You've probably talked to your auditor to make sure about that.

FROM THE FLOOR: Without knowing much about SOP 05-1, it starts to sound like that would substantially change the contract.

MR. FARRELL: Right. If you don't do all the implementation, you're still in the fog

for the next couple of years.

FROM THE FLOOR: I was just wondering if anyone has had the experience of trying to explain to management why the universal life with secondary guarantees (ULSG) reserve under GAAP, under the SOP, is so little, while the AXXX reserve under stat is so big.

Or I've seen some that asked why the statutory GMDB reserve so different than the GAAP GMBD reserve.

MR. FARRELL: That has been an issue. I know I ran into a few of my clients as well who had some difficulties coming up with a good explanation. I think a lot of them just fell back on the old statutory/statutory. It's an arcane set of rules. It's outdated and it's going to give you weird results.

FROM THE FLOOR: If you go back to the statutory reserve, it's generally regarded as being redundant from day one. And typically the structure of a secondary guarantee product or one that will sell today is one that does generate losses. It's interesting. We did some analysis on a couple of our products for which we felt that the GAAP SOP reserve was truly a redundant reserve, and we got some very interesting results. For some of our products, some of our older products, it really was not a redundant reserve, and absent that reserve, you really did have problems.

The other issue is another one of the implementation issues that didn't occur to me. I'm not aware of companies—and you guys who have had more exposure may be—who have built into the SOP process management action.

MR. FARRELL: As far as?

FROM THE FLOOR: Suppose you're setting up a reserve for an existing block. Say you're looking 18 months ago. Irrespective of how it was priced, when you look out forward, based on the current charge structure, you have losses. Well, if you get out there, management perhaps will look at this block of policies—and let's say it was sold by a distribution channel that's no longer there, so it's not distribution sensitive—and say, "We won't put up with this. We'll increase our COIs, or we'll increase our expense charges, or we'll cut out credited interest." Is an SOP reserve really indicated? That's kind of off the subject. I think part of it is, as you put that, to an extent, the statutory reserve is pure formula-driven, and while the SOP reserve is formula-driven, there's some principles-based stuff involved. If you looked at the economic basis of both reserves, you'll probably find that the AXXX reserve in many cases is grossly, grossly redundant.

MR. FARRELL: And the GAAP reserve probably, especially at issue, is too small.

FROM THE FLOOR: It could be.

MR. FARRELL: Because it starts at zero. I think that's where we're seeing the issue of trying to explain to management. As actuaries, we can understand the formulas, but in trying to explain to our chief financial officer (CFO) that we need $2 billion of stat reserves for this and $5 million of GAAP reserves just doesn't add up at all. So I was just wondering if anyone had dealt with that sort of issue and had any approaches that worked in trying to explain this to a non-actuary.

FROM THE FLOOR: That's why you have letters of credit (LOCs), so that you're not eating up all your capital. You're eating up somebody else's capital. If you look at some of the schemes—and I only use that word in a positive connotation—that are coming out now in terms of collateralization, in terms of the capital markets getting involved, getting rid of that extra capital is very, very cheap now.

MR. FARRELL: Yes, and as far as the GAAP reserve, it's zero or next to zero, of course, the implication is you'll be able to fund it out of cash flow. You have sufficient premium, and the death benefits haven't caught up with you yet. It does make sense. It's more than just, "We plug in the formula and here's what pops out."

MR. FARRELL: But in his example, we have a small block that we segregated, and there are not enough large numbers. You have to spread this out over a larger base.

MR. JAMES T. BAUMER: I have a question on reinsurance. If you're separating them out, and you plan to calculate one reserve for direct side and one reserve for the ceded side, do you also test for gains followed by losses on each piece separately, so that you may end up holding a direct reserve and not getting a ceded credit?

MR. FARRELL: I don't think so. I think you look at gains followed by losses as a collective entity because you're going back to what pricing showed, and you priced for it on a net of reinsurance basis. Reinsurance is just one more of those expense-type items. They include death benefits, general expenses, etc., and then the reinsurance cost. So I think in the context of determining whether there are profits followed by losses, you would include the reinsurance and make that determination and then move forward.

MR. BAUMER: So if there are losses on a combined basis, then you calculate both the direct and the ceded reserves?

MR. FARRELL: Yes.

MR. BAUMER: I guess that brings back the bigger question. Is there such a thing as an SOP 03-1 on a ceded block? Is that what you were saying earlier?

FROM THE FLOOR: It's a different benefit ratio.

FROM THE FLOOR: The anomaly that can occur is when you look at the combined structure. Let's say that you have a risk that you cede and you cede 100 percent of that risk. Notionally, you have no exposure. But if you look at the way the interpretations have come out, you could have a direct reserve. You have a FAS 113 offset, but that FAS 113 offset may not be 100 percent of your direct reserve. So you'll have zero exposure, but you'll be required to set up a reserve.

MR. KEHN: Correct me if you disagree, but the big difference that will cause that inconsistency would be the pattern of reinsurance premiums. In other words, if you get a free deal, where there is no reinsurance cost for the first year and then you pay more in later years, if that's inconsistent with what you're getting on the direct side, that will be a big driver of that discontinuity and cause your direct and ceded offset to not move together.