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Accounting for Derivatives

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Panelists: Charles K. Chacosky

Summary: FAS 133 impacts financial reporting of liabilities for GMAB and GMWB benefits, equity-indexed products and modified coinsurance reinsurance. This session addresses the implementations of FAS 133 including embedded derivatives and host-contract accounting.

MR. GRAHAM W.G. MACKAY: I work for Milliman in Chicago, where my focus is on reinsurance-related issues. I'm also on an Academy task force addressing B36. We're working on the production of a practice note, so we hope that will be coming out later this year. Our speaker is Chuck Chacosky. He's a 25-year veteran of actuarial and accounting financial reporting and has over 10 years of experience with the Big Four audit firms; he's currently with PricewaterhouseCoopers. Today he's going to be presenting his insights on some of the key issues and key accounting guidance with FAS 133.

To be honest, my initial reaction to this session was that this was a relatively old topic and that all of the contentious and controversial issues had been resolved at some point in time. But the issues continued to come up during the sessions that I participated in during the symposium, and just the evidence of the number that we have here in this group tells me that the issue is still alive. Hopefully we can address some of the issues for you. Please ask questions. It's hard to speak in general terms often on the subject; you have to drill into the issues. We're counting on you to help us resolve this.

Chuck is going to focus on FAS 133. He covers B36 issues in quite a bit of detail. I have a very small presentation I've tacked on to the end that presents an alternate methodology for bifurcating B36 embedded derivatives.

MR. CHARLES K. CHACOSKY: I want to start by trying to get a familiarization of your level of knowledge with FAS 133. I want to compare that with your knowledge of the recent Hurricane Ivan. Let's have a show of hands. Who is familiar with or has heard about Hurricane Ivan? Pretty much all of us. Are about the same number of people familiar with FAS 133? Maybe a little fewer. I personally got rained on, and Ivan's wind blew me around a good bit. How many of us got either rained on personally or their office? Is that a smaller subset? How many of us have had to deal with FAS 133 at their jobs? Again, maybe a little bigger subset. I personally had some expenses and troubles trying to avoid Hurricane Ivan, as did my family. How many of you had financial expenses associated with Ivan? Very few. I guess I'm more unfortunate. How many of you or your office had financial expense or cutbacks due to FAS 133? Again very few. I think I'm right. There's some correlation between Hurricane Ivan and FAS 133. Let's see if we can spin it around a little less, though.

Today we're going to talk about what insurance products or liabilities will likely require FAS 133 treatment. We'll probably touch on some that don't, even though they might appear to require it. I'm going to try to give you some insights into resources and references. I'll touch on implementation issues and some emerging practices. I do want to say that my presentation is not an audit opinion; it's not actually an accounting opinion either. These are issues and observations, and you should seek out your own auditor and speak with him or her directly about your company's situation.

The insurance products that typically will require FAS 133 accounting are the equity-indexed annuities (EIAs) and equity-indexed universal life (UL). Those are some of the older or first ones identified. The variable annuities with guaranteed minimum account balances or guaranteed minimum withdrawal benefits will most likely require FAS 133 accounting. On the other hand, variable annuity (VA) guaranteed minimum income benefits (GMIBs) usually don't require FAS 133 except in those cases where you're reinsuring the risk away to a reinsurer and that reinsurance transaction is net settled. We'll talk about this more later.

The more recent issue—Graham will speak about this—that has come up is with the modified coinsurance (modco) reinsurance contracts, and we'll talk about that. Corporate-owned life insurance (COLI)/business-owned life insurance (BOLI) with wrappers is another area, but we probably won't talk about that much. Synthetic GICs may require FAS 133 accounting. Of course there may be others, but these are just the hot buttons. There are ones that don't require FAS 133 accounting, such as variable annuity guaranteed minimum death benefits, because there's a specific exclusion for insurance. If someone dies, that's not really a fair value transaction. I said earlier that the variable annuity guaranteed minimum income benefits that are not net-settled in cash—in other words, you're going to pay them over someone's lifetime—are not a FAS 133. The accountants also carved out market value adjustment (MVA) annuities. They felt that that was very clear and closely related to the host contract, so it didn't really represent an embedded

derivative. Fixed annuities that have an index were also carved out for the same rationale.

There are very good resources out there, and they're increasing. I always think of your audit firm first. The first place I went was the FASB Derivative Implementation Group (DIG) issues. The Society's *The Financial Reporter* and other documents are very useful, too. Graham will talk about the Academy's practice note that is being worked on; that should be out shortly.

I'd like to give you a brief overview to make sure we all understand what FAS 133 is. It's an accounting standard that applies to embedded derivatives and hedging activities. These are, by their nature, volatile, and there are a lot of issues associated with those. FAS 133 requires that entities that have these derivatives report on their balance sheet, as either an asset or liability, the fair value of those derivatives. We often use fair value, but there is a definition that the accountants defined, and it's what I often would call an "arm's length" transaction. Their actual definition is that it is the amount in which an asset or a liability could be bought or sold in a current transaction between willing parties, other than an enforced or liquidation sale or a fire sale. It has to be a wiling buyer and a willing seller.

The best source of your fair value would be quoted market prices. For true investments that might be traded on an exchange someplace or something like that, you can look up market prices. Unfortunately for most of us in this room, our embedded derivatives or derivatives are not likely to be traded on an exchange and so we can't look them up in *The Wall Street Journal* to figure out the price. We have to make estimates that involve all sorts of complicated valuation techniques that actuaries just love to do. Examples of these valuation techniques that you can either develop or buy across the counter include the present value of estimated expected future cash flows using discount rates commensurate with the risks involved, option-pricing models, matrix pricing, option-adjusted spread models and fundamental analysis.

When the FASB came out with FAS 133, they got a lot of questions from a lot of entities. They formed DIG, which started issuing guidance. They issued almost 200 different papers, and I think I read every single one of those. Fortunately, I boiled them down to what I call the "DIG dozen," the issues in which actuaries are most interested. Typically, accounting firms and actuaries who use them refer to them by the letter section and the number. The most recent one on the list is DIG B36; Graham will be speaking more about that. I'm going to walk you through all 12 and highlight them. Some will take less time and seem kind of obvious, but when the accountants got together and made these rules, they wanted to make sure we all understood them.

The first one on the list is A16, which deals with synthetic GICs. The FASB looked at them and determined that they actually are derivatives and need to be accounted for under FAS 133 from an issuer standpoint. If your insurance company is issuing

synthetic GICs, then they should be doing FAS 133 accounting. But if it's totally hedged and it's "highly effective," then the effect could be very easily accounted for. There is a lot of documentation and sort of proof with trying to be a "highly effective" hedge, and it's something where each circumstance would be different, so you would probably have to make sure that your accountants or your auditors were on board with that.

B6 is "Allocating the Basis: Host/Embedded Derivative." What might appear more obvious—but I've gone into situations where it didn't seem all that clear—was how you allocate the basis between the host contract and the embedded derivative. An equity-indexed annuity might be a good example of an embedded derivative. Essentially under B6 what they determined is that if what you received from the policyholder in an arm's length transaction was $10,000 for example, and you had an embedded derivative and you used your option-pricing model and figured out the embedded derivative was worth $500, then the host contract at issue should be placed on here as a liability at $9,500. The concept is that the transaction between the insurance company and the policyholder was an arm's length transaction at fair value, and there are no gains or loss at time of issue, so that if the receipts were $10,000 and the embedded derivatives were valued at $500, then the host is the remaining piece. That's what B6 determines. It was a topic that needed to be discussed, because some people felt that you should record a gain or loss at issue, but that's not the way the accountants came out.

B7 is "Variable Annuity Ownership of Assets." B7 is another one of these issues that came up. On a traditional variable annuity, the policyholder directs the premiums into an investment account, and essentially the policyholder bears the investment risk. An issue that came up was, with the traditional variable annuity under this policyholder ownership concept and direction, does that make it a derivative? The FASB met and concluded that, no, that distinction was not enough to make it a derivative, and traditional variable annuities with investment options aren't by themselves derivatives. Thank goodness; that would have been a lot of work.

On the other hand—we talked about this earlier—B8, which is "Host Contract in a Nontraditional VA Contract," determined that guarantees of performance such as guaranteed minimum accumulation benefits (GMABs) and guaranteed minimum account values (GMAVs) do result in a fair value accounting under FAS 133.

B9 is "Clearly and Closely Related Criteria for MVA Annuities." I touched on B9 earlier. Market value adjusted annuities are so clear and closely related to the economic characteristic of the host that the FASB determined it is not a derivative unless there is some substantial additional premium or other put option that is present. However, that's highly unusual.

B10 is "Equity-Indexed Life Insurance Contracts." The FASB group looked at equity-indexed life insurance and determined that it does need FAS 133 accounting. The death benefit feature is only one of the features in the contract, and it's not enough

to give it the life insurance exclusion because the economic characteristics of the inside build up or were significant enough to make it a derivative.

B15 is "Compound Embedded Derivatives." It is another one of these issues where maybe on the surface you ask, why did the DIG bother to have this issue? B15 is the issue about, what if you have two embedded derivatives in one contract? For example, if you have a variable annuity with a guaranteed minimum account value rider and a GMIB benefit that is reinsured and is net-settled, both of them are embedded derivatives. One of the questions that came up is, if you have two or more embedded derivatives within one contract, how do you account for that? Is that two separate calculations? The DIG got together and said that, no, that really is just bundled together and fair valued, both those options, and you should make that a compound derivative and value that as a combined. In practice I have found that that seems to make a logical approach, because if you're going to surrender your policy, if you're going to keep your policy in force and take the annuitization option, then you're not going to get the GMAB guarantee, so the policyholder behavior for those two different benefits needs to be coordinated and bundled together in your fair value calculations. You can't annuitize and surrender at the same time, so in practice it actually was helpful to have this.

B25 is "Deferred Annuity Payout Options." In B25 the DIG group looked at the various annuity payout options and in general determined that the payout options are not an embedded derivative, and even some immediate annuities are not. If you have an immediate annuity that is period-certain only with guaranteed underlying variable annuity payout, you may require FAS 133 accounting. I haven't run into a whole lot of that, so I'm not in practice as familiar with those options. Typically most of the FAS 133 issues have to do with deferred annuities or reinsurance, as Graham will talk about.

B29 and B30 are "Equity-Indexed Annuities." B29 and B30 lay out lots of good information and illustrations of how to do the accounting for equity-indexed annuities. As Graham mentioned, this is definitely one of the areas that has been around a while. Most insurance companies and actuaries have dealt with and fully understand this. I want to highlight it again because if you're looking at other items that are not equity-indexed annuities, I would suggest you go back and read through B29 and B30 from the DIG. It lays out their logic and their mindset, as well as some good principles that you might be able to apply to your situation if it is an equity-indexed annuity.

Let me give you a full example of how under B30 one would treat the host contract upward to the ending account value using an effective yield method. Say that the embedded derivative in the EIA was given a value of $20,000 on a contract that had an initial premium of $100,000. This means that your initial host value would be the difference, or $80,000. Assume, as a simple example, that it is a three-year contract and that they guaranteed that at the end of the third year you at least get your premiums back plus 1 percent interest a year. What that means in host

accretion terms is that the $80,000 needs to accrete to $103,030 at the end of three years, which is about an 8.8 percent compound rate for those three years. The value of the embedded derivative at a different point in time will be based on the new fair value calculation at that time. As I mentioned before, it's a very complex calculation to calculate a fair value. Software and other sorts of devices are available to help you do that. It will bounce around; there's no question about that. It goes up and it goes down with the changes in interest rates and other policyholder behavior.

B31 is "Accounting for Purchases of Life Insurance." I won't spend much time on this. It deals with COLI and BOLI. The interesting thing here is that this applied to the owner of the contract more than it did to the insurer, but of course if you're issuing these, the owner is looking at your insurance company to give you information and help you out, and this may affect your marketing. Again, I don't have a lot of experience in the area of fair value of COLI or BOLI.

B36 is "Modco Reinsurance with Credit Risk Exposures Unrelated to Obligor." This was a very hot topic at last year's valuation symposium, as it had an effective date of September 2003. In the last year, a lot has been written and talked about with regard to B36. B36 is an idea that modco reinsurance arrangements with funds withheld can be an embedded derivative. When they looked at this issue, the DIG did decide that some of these modcos with funds withheld are not clearly and closely related to the host contract and did need derivative accounting. The DIG, when they reached this conclusion, were focused on the risk exposure of the assets backing the stated liabilities that were not related to the creditworthiness of the ceding company. The aftermath of this was that it was determined that often what we call "financial reinsurance" treaties were prone to this exposure, and several reinsurance companies and companies who were using financial reinsurance scrambled last year to do the evaluation analysis of their individual contracts and especially of their experience refund features. They struggled to work with this, and it has been an area that has seen a good bit of activity in the last year.

There is a point of view that B36 can be viewed as a hypothetical loan. I will cross-reference back to B19, which gives a lot of the characteristics of a debt host contract and these concepts of loans. I recommend reading B19 also if you're having trouble with the B36 modco agreement. You can find some articles and letters in the Society of Actuaries' March 2004 reinsurance newsletter. I want to highlight that that's a good reference to read to understand what other practices are, but that paper was not accounting or legal or tax advice. It was specific to circumstances that existed at that company; your situations might be totally different. You have to do your own analysis and reach your own conclusions.

When I was putting this together, I wanted to make sure we all know that the American Academy of Actuaries is writing a practice note on this. They're addressing several issues, and Graham will speak to those.

MR. MACKAY: First of all, we keep making reference to the work that the Academy is doing. I'm a fairly new member to this. I've just joined to add to these discussions on the alternate modification model, which I'll talk about now. The intention is to produce this practice note by the end of this year. We still need to complete it and we have to go through the peer review process, so it's very much a work in process. At this point, I think it would be unfair for me to talk about any of the work that has actually been done. My own views are contained in a research report that I've prepared with another Milliman consultant, a financial economist. You can find that on our Web site if you have any interest in that. This presentation is very short. It was prepared this morning, and it was a reaction to some of the presentations that I've seen earlier in this symposium.

The message I want to deliver is that there are a couple of different conceptual models that can be considered in bifurcating the modco contracts. The prevailing view is the one that I'd say is still the dominant view; it's the one that has been actively used for the last year. It generally requires the assumption that a hypothetical loan exists and a structure is built around the hypothetical. The other view comes from a capital market perspective, and people take a very different approach to it. They say that if you take a look at B36, you'll notice that there are two examples in the document. There's the modco example, but there's also a credit-linked note example. These people say that it's not a coincidence that the credit-linked note example is included. Let's take a look at it.

B36 describes what a credit-linked note is. Basically it's a loan from one company to another. There's credit performance of unrelated securities that are guaranteed by the lender of the money. That's all a credit-linked note is. B36 then makes very clear that if an instrument incorporates credit exposure that is different from the risk exposure arising from the creditworthiness of the obligor's debt instruments, such as the value of the instrument is affected by an event of default, then the economic characteristics and the risk of the embedded credit derivative are not clearly and closely related. This is something to which we've all become accustomed. This is the statement that says embedded derivative success, and you apply that just as well to a modco contract.

B36 then goes on to state that the credit-linked note includes the embedded credit derivative feature. In that example, the credit risk exposure of the reference security and the risk exposure arising from the credit worthiness of the obligor are not clearly and closely related. Thus, the economic characteristics and risks of the embedded derivative feature are not clearly and closely related to the economic characteristics and risks of the debt host contract, and accordingly, the criterion in paragraph 12(a) is met. They're just saying that there's a credit derivative.

Here's the conclusion of the people who follow this approach. The hybrid contract is a credit-linked note, the host is a risk-neutral loan and the embedded derivative is the credit protection. The investor is paying in the event of credit loss on the underlined. They're paying the actual credit experience, and the investor is

receiving the spread on the underlined, so they're being compensated; they're being paid for the expected credit loss. It's a swap, and it's a very straightforward calculation. They draw the conclusion that this should be applied literally to a modco reinsurance contract. They say you take this bifurcation process, apply it to the underlines held in the modco agreement and the embedded derivative is a credit-only swap. They go further to say that this isn't a very hard calculation to be performed by the investment department. Calculating the value of credit spreads is not my area of practice, but I've taken this at face value. Many people who are in this business have told me that this is a calculation that can be performed by most investment departments at this point.

The important message is that this school of thought is almost mutually exclusive from the hypothetical loan model. They don't really overlap, and they get to the same results in that there's a process for bifurcating the contracts. This group also holds the position that a calculation of a credit swap is a fairly easy thing to do. More important, this approach to bifurcation is gaining in acceptance, and people need to be aware that this is a different model that can be applied to bifurcating these contracts. It's a simple message. The view really didn't exist and it wasn't really accepted a year ago. This is a fairly recent thing.

We have a lot of time for discussion. We've got some questions to ask you, but I'm hoping that we can get some participation from you folks on this. The first question is, what part of FAS 133 holds your interest? Is it equity-indexed annuities? We have loads; that's great. We probably have 20 percent of the participants. The guarantees associated with variable contracts? A good bunch; that's good. Reinsurance contracts, modco contracts? Again, another group of people, with some overlapping. You folks who raised your hands are going to need to drive part of this in asking the questions, and we'll do our best to get responses back to you.

MR. JOHN A. ROSE: I feel embarrassed to ask this, because supposedly everyone knows all about EIAs already. If you look at the examples, literally they talk about point-to-point annuities and how you have to take into account what your likely rate will be in the future. I have that wrong. For annual reset, they talk about taking into account how you set rates in the future. For point-to-point annuities, the example has one point and then it stops. Now, in real life if you have a five-year point-to-point annuity, but the client can roll it over and over again, do you have to look at all the future five-year periods and take into account your crediting strategy, what it will likely be in reserve for all of that, or can you stop after one period because the example stops after one period?

MR. MACKAY: The direct answer is that the examples given are always the least complex and are not necessarily thought through all the way. I don't have the full answer to your question off the top of my head.

MR. ROSE: I have a follow-up question. Even on an annual point-to-point where you are supposed to take into account what happens in the future, your embedded

derivative is a multiyear derivative, but you might just hedge it with a one-year asset. So don't you have big mismatches? If volatility changes partway through the year, your asset will change a little bit, but your embedded derivatives will change a lot. Is there any way to mitigate that, or is that just a fact of life that your earnings are going to vary a bit?

MR. CHACOSKY: I've certainly seen a lot of variability in earnings from FAS 133. It is possible to do better, but I haven't seen that in practice. It's difficult, especially over the last few years. Markets have been changing at probably a faster pace than we were used to, and, as are many actuaries and investment advisors, some of us are still trying to get better at this.

MR. EDWARD C. JARRETT: I'll respond to his issue with what I've seen in a handful of companies. I've seen companies just using the option budget approach even after the point-to-point period. They use some sort of approximation so at least they're considering their renewal periods, but they're using simplified processes.

One of my questions is on the host contract calculation. Again, I'm falling back on EIA. I'm probably in that category of being new to this issue, because I haven't actually dug my hands into it until just recently. In the host contract calculation, I'm fully aware of a lot of the examples out there where the bifurcated at issue comes up with the host contract amount and the accrual interest rate and things of that sort. In future dates on the host contract calculation—I'm aware of the then-current fair value of the embedded derivatives—is it subject to unlocking in terms of future cash-flow assumptions, meaning if a company chooses to calculate the initial host contract approval rate with partial withdrawals and mortality and reflecting all those cash flows as opposed to simply interest only, and you're moving down a few years later and some events have occurred (either historical events, partial or different than you actually assumed), and the person may have made some transfers and things like that, so you have a true up impact in that case, does unlocking apply in that case, and, if so, what do you do with those contracts? Second, if unlocking does apply, in an actuary's opinion of future cash flows, meaning their mortality or their partial withdrawal type of assumptions, again, is the host contract mechanics in some way, shape or form somewhat locked in, or is there an unlocking aspect to it?

MR. CHACOSKY: You're asking a very detailed question, and I would certainly advise you to speak with your own auditor. I have seen in practice some companies apply some adjustments to some of the different fair value host accounting and accretions because of changed circumstances. Typically I haven't seen them to be all that material, and so I'm not sure that that issue has been taken up to the highest levels and determined fully. But you made some good points. What I was going to ask was, on some of these subsequent contributions and so forth, is there a separate embedded derivative associated with that? Perhaps someone else in the audience has experience in the particular issue, too.

One of the items I meant to mention in my presentation as another resource is the International Accounting Standard similar to FAS 133, which is IAS 39. If you're subject to international accounting or if you're looking for another point of view, you might pull up IAS 39.

MR. GREGORY B. GOULDING: Graham, I was interested in your alternative approach on B36. From your analysis, what are the advantages and disadvantages in terms of the income balance effects?

MR. MACKAY: First of all, you don't avoid the recognition of embedded derivatives, but I think what you achieve by having a credit-only embedded derivative is that you have an embedded derivative that has the lowest amount of volatility, given the choices that are available to you. The three models that exist are a credit only, a total return with a fixed leg and a total return with a floating leg. Total return with a floating leg is the easiest of the three to calculate. It's the market value of assets less book value of assets, which makes it readily available, but I think it's the one that's generally accepted to have the greatest amount of volatility. The credit derivative has been generally accepted as the form or definition that has the lowest amount of volatility, but has generally been dismissed as the one most difficult to calculate.

Regarding the investment department issue, they for the most part have those capabilities. The main advantage is minimizing your volatility. It's going to be most important for companies dealing in commercial transactions. For intergroup transactions, the modco transactions are intergroup, as long as you have mirror reporting as long as you'd expect to have. The embedded derivative is going to cancel anyway. You may say that for the intergroup transactions, take the easy route and be done with it. I think that's what a lot of companies have done.

These are long-term contracts, and you have no idea what the future holds, so volatility is an issue where I would like actuaries to have the ability to choose. You have an expense issue; some of these methodologies are more complicated to perform. There may be a company issue where there's flexibility. The FASB and the DIG say you have to look at each contract independently and you have to form your views on each embedded derivative feature and each structure. When there are compound derivatives, you have to combine them and form an opinion based on the facts and circumstances of that contract. It has been said time and time again in this issue that there are a lot of gray areas here, and there's a call for judgment that can be applied on these contracts. As actuaries, we need to be aware of all of our options.

MR. CHACOSKY: We often find on this issue that the actuaries are only a small part in the B36 calculation. The investment department is doing a lot of the heavy lifting, especially as regard to some of the assumptions and some of the volatility that we noted.

MR. CHACOSKY: When you're looking at an embedded derivative where there is a specific additional fee charged, then, yes, that would go into your fair value calculation, and it would offset the cost of providing that derivative. It's more difficult when the fee is not explicit, and there is a desire to back into some sort of fee. That makes the calculation much more judgmental and more difficult, but I think your example was pretty straightforward.

If you have an extra margin someplace else that you envision helps pay for this embedded derivative, it's useful to know that because when you're doing the fair valuation, you're only bringing in the explicit charges if there are explicit charges. If you've already made a statement that we need these other charges or other margins to cover it, that's going to tell me that you're going to end up with a fair value liability at issue, and it can measure that. The other complication associated with something that you're talking about is the timing differences. Clearly fair valuation takes a good bit of time to actually run the calculations to get the data. I've even been told in some cases that by the time you actually do your fair value calculation, the assumptions might already be stale. It can be a complication if you're having a long enough lag between doing your fair value and putting those changes in as opposed to the other items that are falling out. Maybe you have a partial hedge and they're all unquoted prices, and those hedge values are known almost instantaneously with the close of the quarter or these other fees you were talking about that are collected. Those timing differences can make it more difficult. I also recommend to clients that for year-end they try to speed up the process and be prepared and not be on a quarter lag or something like that at year-end.

FROM THE FLOOR: If this kind of option, basically is it a FAS 133 because the underlying contracts are variable annuity contracts? Let's say you pay an extra 10 percent of the account value.

MR. CHACOSKY: If it's above or below the total premium?

FROM THE FLOOR: Above.

MR. CHACOSKY: It sounds like an option to me. Whether it's paid or not, it's based on the future economic performance, and that sounds like a derivative, off the top of my head.

FROM THE FLOOR: But the underlying contracts are fair value already right?

MR. CHACOSKY: The traditional variable annuities are not fair value.

FROM THE FLOOR: No, the variable annuity, so it is a separate account. We report the account value anyway for a variable annuity contract.

MR. CHACOSKY: Right. It's not a derivative. A traditional variable annuity by itself usually is not a derivative under FAS 133 accounting.

FROM THE FLOOR: But it is like a market value anyway. Let's say it is a variable annuity, so it is a separate product, so the value, right?

MR. CHACOSKY: You're holding your account value as your liability under the FAS 97?

FROM THE FLOOR: Right. For the derivative part also at its fair value?

MR. CHACOSKY: Maybe the part you're missing is the income effect to the insurance company. For a variable annuity, the account value does go up and down with the market, but that does not usually affect the income statement of the issuer very much. But for an embedded derivative or an option like what you're speaking about, the change in the fair value of that liability will go through the GAAP income statement of the entity and increase volatility. That's a clear distinction between FAS 133 and FAS 97. You're right in a certain sense that the balance sheet on the variable annuity is volatile, but not necessarily the income.

MR. DAVID M. RUIZ: I deal with issue B36 for modco reinsurance that we accept and that we cede out, but I deal with it once every quarter. It's already set up, so I don't have to do a lot of thinking about it. Because of that, I think I may have missed a few key terms, and there may be others who don't know what these terms mean either. "Clearly and closely related" is something that's mentioned all the time, and I don't know that many actuaries get that concept. The other one you mentioned was "net settlement" on the GMIBs. I'm wondering if you can elaborate on that as well.

MR. CHACOSKY: "Net settled" is an important distinction in FAS 133 terminology. There are plenty of instances where an insurance contract may have something that has the appearance of being a derivative because it has functions associated with an economic risk, but if the other party can't take that economic risk part of the contract and demand that you give them cash, they have to take the implied profit from the option and spread it out over a long period of time. What the FASB concluded was that the issuer of that option probably is building some sort of profit margin into the long-term payments that is compensating them for this option. That's very complicated in a lot of words.

The example where not net settled is a driver is the GMIB under variable annuity. A typical GMIB benefit might say something like, if you give us $100,000 for this variable annuity and put it into funds, and you find out 10 years later when you want to retire annuitized that your account value has dropped to $90,000, we will compare the annuity income strain you would receive from $90,000 at our current rate and compare that to your initial premium of $100,000 applied to our

guaranteed rates in your contract for annuitization, which probably had, or was intended to have anyway, a conservative interest rate and conservative mortality basis. The two calculations are then compared, and the policyholder would get the higher of the two. It was quite obvious to the DIG people that in the guaranteed calculation there was a profit margin built into the monthly payment. They weren't getting $100,000 in cash at the annuitization date; they were getting something different because they were getting it compared to the guarantee. Since there were several instances where when you had the current versus the guaranteed, the current was even higher using the lower number, it was fairly obvious that there was a profit margin built into the stream of payments, so the "net settled" concept, or exclusion, was brought forth. There are all sorts of levels of complexity with net settled. If you have say a one-year guaranteed annuity, that's almost the same as net settled. Five years is probably not, but that's the general concept of "net settled."

FROM THE FLOOR: For B36 then, the net settlement is the movement of funds in and out of the modco account when there's a credit amount. Typically the modco reserve would be set equal to the statutory reserves, and the modco interest adjustment pays the interest on those withheld assets to the reinsured, but the reinsured at the same time is really obliged to maintain the assets at the agreed level. Is that the "net settled" for the B36 contract?

MR. CHACOSKY: It would include things like the experience refund adjustment and the cash that's going back and forth. They're settled on probably a quarterly basis in many cases. That's definitely net settled.

FROM THE FLOOR: Is "clearly and closely related" presumably talking about the interest, Paragraph 13? There's an exclusion for something that's "clearly and closely related." What does that mean?

MR. CHACOSKY: I struggle with "clearly and closely related" too. I'm not sure this is the official explanation, but this is the way I settled it in my mind. It's almost a question of materiality: if the option, economic put or call, that you're looking at in the contract is so immaterial as compared to the economics of the host or is so closely tied to it that it doesn't make that much of a difference. It's a judgment call; that's why they have these issue papers. The market value adjusted annuity feature was the one they give as the best example, where that adjusted surrender charge is something that is clearly and closely related. I'm not sure I have a better definition. Does anyone else want to share his or her concept of what's "clearly and closely related"?

MR. MACKAY: I struggle with it also, and when you look at the different definitions—this is for B36 again—whether it's a credit only or a total return swap. A hypothetical loan almost immediately moves you into a total return, and that account would say interest is obviously not clearly and closely related and moves into total return. The capital markets people would say it's as clear to them that

interest is clearly and closely related. They'd say it's part of a loan. I can't explain that. I don't think Paragraph 13 is written in a way that easily applies to a reinsurance or a modco reinsurance structure. It's hard for me to interpret.

FROM THE FLOOR: With respect to the market value adjustment, I went to a presentation a couple years ago on FAS 133. We have a market value adjustment product where the market value adjustment is not limited as to its duration. It can be there forever as long as the contract is in force, and we were told at the time that that's obviously not clearly and closely related. Now I'm hearing that it has been decided that market value adjustments are clearly and closely related. Is it because you're talking about a limited duration in variable annuities that are only in force for 10 years or something, or is it a change in attitude or a judgment?

MR. CHACOSKY: The FAS 133 B9 is the one I reviewed in regards to this. They were looking at two characteristics that were important. The first was, is there a substantial premium or discount? The second one is whether the put or call is contingently exercisable. What they concluded was the MVAs they looked at didn't include either of these features. I'm not hearing that yours did either, but that's interesting and I'll make a note about that. That was not something with which I was familiar.

MR. TIM HARRISON: Going back to the original problem of there not being an active market for these derivatives that we're trying to value, are there special cases where there actually are? For example, if you had a monoline stock insurer, and all it did was variable annuity business and modco'd it, can you look back to the stock market price for that life insurance company and kind of re-engineer the implied value of the embedded derivatives? There may be only an academic case, but I'm wondering if that's a possibility and if it has been explored by anybody.

MR. CHACOSKY: I haven't heard of that one. The stock price of a publicly traded insurance company may have all sorts of reasons why its price changes other than the business it writes, such as its reputation, who makes a market, its leadership, its ratings and all sorts of things. There was some interest in looking at actual **M&A** transactions on blocks of business or quotes of reinsurance. For example, if you had a block of business that did require FAS 133 accounting, you theoretically could contact other insurance companies or reinsurers and ask what it would take for them to buy this block of business from you. If you got three or four quotes like that, one could try to take the position that that was fair value. I doubt that would work, because I don't know who would go to all the trouble to give you a price quote on something you really weren't trying to sell. I still maintain an interest in that, because I'm always interested when we do have M&A transactions where the fair value was or wasn't on the block of business. There hasn't been a whole lot of MNA activities where a FAS 133 block was a big piece, though I'm still looking out for that.

MR. KENNETH C. COLLINGS: I have a fairly basic question. Regarding the

overall goal of what FAS 133 is trying to achieve, is it more related to proper statement of the balance sheet and the income statement, or is it more related to the notion of explicitly showing derivatives on your books?

MR. CHACOSKY: I perceive, but I do not know for sure, that a lot of the accounting standards are reactionary and not forward-thinking in their original design of why they came about. I think there's a lot of forward thinking in these issues. I believe FAS 133 was a reaction to some of the derivative and options scandals from the 1990s, when certain entities had significant derivatives and they weren't being fair valued and were finally settled. There was trouble around them.

FROM THE FLOOR: I don't really know how the accounting works for those, but to the extent that that was on your books at fair value to begin with, so that carving off a piece and calling it a derivative has no impact on your income statement or balance sheet but it just changes a little classification, would that still be something that you have to carve off, even if it's not going to have any net effect on your balance sheet? If the liability in total is at fair value, should you still carve off a piece that you're calling an embedded derivative and identify that portion of the fair value separately from the rest of the contract?

MR. MACKAY: I have a question for the group. This is again back to B36. This rule doesn't go into effect for foreign-controlled reinsurers, so it's still not fully implemented. I'm curious as to how many companies have yet to put their stake in the ground or, as Scottish Re is, that the decisions have been made and managed through the transactions. Have most people implemented B36? I'll take that as a yes. I have a question for Chuck then. If the nature of the contract has changed, the test would have to be reapplied. How material would the reinsurance contract have to be changed before it would trigger this revisitation? An example would be the introduction of interest maintenance reserve (IMR) into the modco agreement. Would that be enough to cause companies to revisit this?

MR. CHACOSKY: Clearly if the contract is changed, you should revisit and revalue the determination of whether B36 applied or not.

FROM THE FLOOR: It all depends on the details of each contract, working it out with your auditors, etc.

MR. CHACOSKY: It all relates to the circumstances and the effect at that time.

FROM THE FLOOR: For FAS 133, is it possible that at the issue of a policy there will be gain or loss at the beginning when you start? Normally under GAAP there's no gain or loss.

MR. CHACOSKY: Generally speaking, in FAS 133 there would be no gain or loss at issue. There could be exceptions if you can demonstrate that this is a loss leader and it's intentionally a loser. I haven't run into anyone who wants to prove that to

his or her auditor.

MR. MACKAY: I think your statement is correct. Generally that's not the case, but if your fair value exceeds your premium, there is a loss, because you have to value your options at fair value. Normally we don't have that, but in theory you could be so aggressive and so mispriced that someone is giving away an option.

MR. CHACOSKY: I run into those cases, but what I have said is that you already had a premium deficiency under the other accounting standards, and they really don't need to think about it as being a fair value loss at issue. If you can prove there's a premium deficiency at issue, then you have to hold that premium deficiency requirements, whether you're in fair value 133 standards or not.