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GAAP Accounting for Derivatives: *FAS 133*

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Summary: In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133, “Accounting for Derivative Instruments and Hedging Activities.” After a one-year deferral, FAS 133 is now effective for fiscal quarters of all fiscal years beginning after June 15, 2000, i.e. January 1, 2001 for calendar-year companies. FAS 133 will have a deep impact on companies that employ derivatives as part of their investment strategy and on companies that have derivatives embedded in their products.

MR. MICHAEL J. HAMBRO: This session is an overview of *FAS 133*. *FAS 133* was issued in 1998, and it’s effective for all calendar quarters for fiscal years starting after June 15, 2000. For most companies, it’ll be effective January 1, 2001.

John Santosuosso is going to conduct this teaching session. John is a partner at Ernst & Young in the New England Area Insurance Group. John has served a variety of companies within the insurance industry and has developed a very strong background in both statutory and GAAP accounting and reporting. Most recently, John has been focusing on investment accounting and related matters. He is the New England area’s expert on *FAS 133*.

MR. JOHN SANTOSUOSSO: Without further ado, let's jump right into *FAS 133*. As Michael said, for most of you and your companies, *FAS 133* will be effective beginning January 1, 2001. Last year at this time, we were indicating that we thought that the challenge for most companies was a good 15-month project to get their hands around *FAS 133*, and here we are. It is about three months before the effective date, and I can tell you, just from working with a lot of companies, there's still a lot of challenges left out there. That is partly due to some of the guidance that we'll talk about here.

Why did the FASB feel compelled to move forward with *FAS 133*? For the most part, it's because the existing compendium of accounting literature that addresses derivatives, is very much incomplete. There are really two financial statements that address derivatives: *FAS 52* deals with foreign currency and *FAS 80* deals with futures contracts. The largest growing segment of derivatives and interest rate swaps aren't addressed specifically by any one accounting standard. Rather, there's a host of various Emerging Issues Task Force minutes that address swap accounting. In addition, the guidance that's out there for options is really an old 1986 Issues Paper that was put out for exploratory purposes back in 1986. It was never issued in final form but actually has emerged as the guidance for most companies that deal in options. The guidance that does exist in *FAS 52* and *FAS 80* is often inconsistent. You get a different accounting answer depending on the instrument that you're using, and depending on whether you're looking at *FAS 52* or *FAS 80*. Because of the lack of information, the accounting in your derivatives has grown to be complex. Different companies using different instruments without good authoritative literature have been forced to analogize to other parts of the literature that really wasn't meant to be analogized to. The result is very complicated accounting for derivatives.

Last, but certainly not least, the FASB and users of the financial statements overall believe that there was a real lack of transparency around derivative instruments in companies' financial statements. Much of the derivative debacles that we've heard about over the course of the last five years or so might have been avoided had better accounting standards been out there.

Michael went through the timeline. Most of you will be adopting *FAS 133* on January 1, 2001. You get about three months or so to get ready for *FAS 133*, and it'll be a beast.

As we go through the statement, I'm going to run you through the model that exists in *FAS 133*. You'll find that there are basically four fundamental decisions that the entire statement is based on. The first is that derivatives are, in fact, assets and liabilities, and they need to be recorded on the balance sheet under the FASB concept statements. Most of you that deal with interest rate swaps (say you were using swaps to hedge cost basis hedged items, like liabilities), should know that these swaps didn't find their way onto your balance sheet. The first decision was that the FASB said, "Wait a minute. Derivatives are, in fact, assets and liabilities and they should be on the balance sheet."

The next decision is that fair value is the most relevant measure for financial instruments. When it comes to derivative instruments that don't have any cash outlay at inception, fair value is really the only relevant measure for determining what a good accounting measure would be for derivatives. Next, only assets or liabilities should be reported on the balance sheet. In this case, the FASB was poking fun, in a way, at the hedging model that existed in *FAS 80* whereby a lot of companies were reporting derivative changes in a deferred gain and loss account. The FASB has since said that deferred gains and losses really don't represent assets or liabilities under the concepts statement. Finally, the FASB recognized that, for the most part, companies are using derivatives in hedging transactions so that there is and continues to be a need for special accounting for derivatives used in hedging relationships.

What is a derivative? The FASB spent a fair amount of time working through the definition of a derivative. It reads as follows:

A financial instrument with an *underlying* (variable and a *notional amount* or payment provision that together determine the amount of settlement, has no (or insignificant) *initial investment*, and whose terms permit *net settlement* or provides for delivery of an asset that puts the recipient in a position not substantially different from *net settlement*.

I will point out that the statement itself has a very broad definition of what a derivative is and accomplishes that definition by giving us characteristics of a derivative as opposed to specific derivative instruments. The FASB purposely left it broad, and then, the statement came up with exceptions and narrowed the focus of derivatives.

What are the key derivative characteristics that one would look at? First, there has to be an underlying or some variable associated with the contract that, combined with the second item, the notional amount, the par, the units, or the bushels (depending on the instrument), will provide some form of mechanism for determining cash settlement.

The next characteristic is that there is generally no or a relatively small initial investment. That's really compared with going out and buying the underlying directly. In the case of an interest rate futures contract, you generally speaking, don't pay anything up front to acquire this futures contract. In addition, if you actually bought the underlying Treasury security directly, it would cost you PAR at the time that you entered into the transaction. The "relatively small" characteristic in this particular bullet was really put in to accommodate options. You're paying some sort of an option premium up front, so it's smaller than if you had actually gone out and bought the underlying directly.

Another characteristic is that there's going to be some feature that provides for a net settlement. We'll talk about this more in a moment. Finally, one of the last changes that the FASB made before *FAS 133* came out was this notion of free-standing or embedded derivatives. This ended up having a significant impact on the insurance industry. The FASB was very concerned that the wizards of Wall Street would figure out a way to take derivative instruments, embed them in other nonderivative financial instruments, and thereby circumvent the rules that the FASB was trying to push forward with *FAS 133*. There are specific provisions for embedded derivatives.

We mentioned that settlement, and this is the manner in which the contract allows for some sort of a cash settlement. The contract can provide for net settlement under it on its own, or it could be settled through an exchange or a market mechanism. Finally, contracts that provide for a derivative or some other asset that's readily convertible to cash would also be deemed to meet

the net settlement criteria. Suppose you had a warrant on a publicly traded stock, for example, and you could simply exercise that warrant (get the stock and sell the stock for cash), resulting in the warrant itself being considered a derivative instrument.

I mentioned that the FASB started out with this broad definition and then chose to narrow it down specifically within the statement. The statement states what is specifically not a derivative. Regular securities trades, for the most part, settle for cash three days after the trade date. That trade settlement difference is not meant to imply that a regular security trade is, in fact, a derivative. When issued, to be announced type securities that settle sometime on a normal basis after the three days are still okay under the terms of the statement.

Normal purchases and sales. This has actually gotten a lot of play and was an issue that ultimately got resolved in the amendment to *Statement 138*. This is where the FASB's unintended consequence of keeping a broad definition made its way into the manufacturing industry. This is where fixed price, fixed delivery, and fixed supply type contracts, that simply resulted in going out and buying materials, ended up meeting the definition of a derivative because it had all of the characteristics. I'm dealing with a company today that manufactures shoes and, in some cases, buys leather six to twelve months in advance of needing it. When we went in and started looking at it, company personnels' initial reaction was that *FAS 133* was not going to be an issue for them because they don't have any derivative instruments. As we looked through their contracts, we found several cases whereby the contracts themselves would actually be considered derivatives. They have to be put on the balance sheet at fair value. Normal purchases and sales have now been excluded under *FAS 138* as long as the holder plans on taking delivery of the underlying. In my example, if I plan on taking delivery of the leather, then I don't have a derivative transaction.

Certain traditional insurance contracts are not derivatives. This started out nice for the insurance industry because normal insurance contracts that made some payment based on an underlying insured event got the exclusion under *Statement 133*. As we'll see, the challenge is on some of these nontraditional types of contracts, and we'll talk about that further.

Contracts settled in an entity's own stock are also not derivatives. This is for an issuing company that is issuing option contracts that get net settled. There's already plenty of existing guidance that addresses these issues. They're explicitly precluded from *FAS 133* treatment.

Nonexchange traded weather-related contracts are not derivatives. These are contracts that have some payout based on climatic or geological type changes. There's also separate guidance out there that deals with weather derivatives and similar things. That doesn't necessarily get *FAS 133* treatment, unless it's exchange traded. If a contract related to climatic or geological changes is exchanged traded, there's a mechanism to net cash settle out of it, and it would fall under *FAS 133*.

I mentioned embedded derivatives and the significant impact that this last-minute provision had on the insurance industry. An embedded derivative is an implicit or explicit term within an instrument that has the effect of acting like a derivative for that particular instrument. It changes the return characteristics of what is now being called the host contract. A classic example would be a structured note, a convertible security, or any type of security that has a cap or a floor. All of those are deemed to have embedded derivatives, but don't jump yet and assume that you have to follow *FAS 133* because there are specific rules when you deal with embedded derivatives.

The first criteria is to look to determine if the embedded derivative is clearly and closely related to the host. This clearly and closely related criteria deal with the risk characteristics that impact the host contract, as well as the risk characteristics that impact the embedded derivative. As an example, if a debt security had an embedded interest rate cap, both the host security, a regular debt instrument, and the cap are impacted by movements in interest rates. As a result, the cap is deemed to be clearly and closely related to the host contract. In that case, you don't have to bifurcate out the embedded derivative.

There were some boundaries put in by the FASB that pertain to this notion of bifurcating out the embedded when the embedded is, in fact, not clearly and closely related. It was really meant to get at instruments that are significantly leveraged where the embedded derivative might be impacted by the same risk characteristics as the host but by differing degrees. However, where

the embedded derivative itself provides for some significant leveraging in the instrument and the holder is unable to recover all of the initially reported investment, or whereby the instrument has a return that's double the initial rate of return, and at least twice what you would expect for that particular security. The embedded derivative would need to be separately accounted for.

Say we have a contract that has an embedded derivative and, for whatever reason, we have a great deal of difficulty trying to pull the embedded derivative out to identify and measure it. Then, as the statement says, we need to account for the entire contract at fair value, and we need to record changes in the fair value of that contract through the income statement. The contract itself cannot be designated as a hedging instrument under the statement.

The FASB believes that these situations are going to be extremely rare. If you feel like your initial reaction is to say we're not going to be able to bifurcate that, we need to revisit that because, again, the FASB believes it should be extremely rare.

Take the guidance related to the embedded derivative. You can figure out whether or not to apply *FAS 133*. The first question you might ask is, would the embedded derivative have been a derivative had it been free-standing? In our example with a bond that has a cap in it, if you went out into the marketplace and purchased a cap, it certainly is a derivative if it's free-standing. The next question you need to ask yourself is whether the derivative is clearly and closely related to the host contract. If it's clearly and closely related, you don't have to bifurcate out the embedded. You don't have to follow the statement. If it's not clearly and closely related, then you need to figure out whether the contract itself is already carried at fair value in the balance sheet with changes in fair value going through the income statement. If it's not, then you have to apply the statement. You have to bifurcate that embedded derivative and account for it separately under *FAS 133*.

Let's discuss clearly and closely related economic characteristics and risk. What we would expect to see in a debt type of host for clearly and closely related risks is interest, inflation, and creditworthiness. If you have those same risks in the derivative and the host, then you're deemed to be clearly and closely related. For equity hosts, we'd expect to see equity of the same issuer.

If you have a convertible bond (for example, a debt instrument that has a conversion feature that allows you to take equity shares in a publicly traded company), the embedded derivative is not clearly and closely related because equity prices are driving the embedded derivative whereby interest is driving the debt. However, with equity, we'd expect to see equity of the same issuer. Finally, there are instances where you might have a lease host, and the economic characteristics that you'd have to expect to see in the embedded in that case would be inflation and interest.

There are many instruments that do, in fact, contain embedded derivatives. Specific to the insurance industry, certain disaster bonds that pay out based on some change in an index are, in fact, hosts that contain embedded derivatives. We'll talk more about that as we go along here.

Let's discuss instruments without embedded derivatives. Generally speaking, as you go through this, you'll see that most of these have a clearly and closely related embedded derivative, so they don't require separate accounting.

In terms of the accounting model that *FAS 133* sets forth, the model itself is relatively straightforward. I will tell you the devil of this statement is absolutely in the details as you start to pour through your hedge relationships. Basically, the model says that Step 1 is to put all of our derivatives on the balance sheet at fair value. Remember the key fundamental decisions. Derivatives should be on the balance sheet. Derivatives should be recorded at fair value. In any case, our *FAS 133* model tells us that we have to put the derivatives on the balance sheet at fair value. There is special accounting that's granted for derivatives that are part of a hedge relationship; however, the FASB's intention is that the special accounting is a privilege and not a right. You can't say, "My derivatives are part of a hedging relationship so I'll get special accounting." The FASB has imposed significant, rigid criteria that an entity needs to look at and go through prior to assuming that a derivative is part of a hedge relationship.

The statement provides that there are three hedge relationships out there. There are derivatives used to hedge changes in the fair value of an existing asset, liability, or firm commitment; that's considered a fair value hedge. There are derivatives that are used to hedge future variable cash flows, and the changes in fair value due to those cash flows. That's deemed to be a cash-flow

hedge. There are still, as there was under *FAS 52*, hedges that are meant to hedge foreign currency changes, and those are deemed to be foreign currency hedges under the statement.

Before we dive specifically into the model, I'd like to mention some of the rigid criteria that exists under *FAS 133*. For example, one of the things that a company needs to document is that the derivative and the underlying hedged item will be highly effective in offsetting one another's changes in fair value. It's a process known as effectiveness. Effectiveness is a very key part of the statement that companies are going to have to take a look at. There needs to be a reasonable basis for determining how you're going to assess effectiveness. Effectiveness is deemed to be the change in fair value of the derivative compared with the change in fair value of the underlying hedged item. In order to designate something as a hedge, there needs to be an expectation that both initially and in the future, the derivative will be highly effective in offsetting gains and losses on the underlying hedged item. Most folks would say I think I have an effective hedge based on what I've seen in past relationships such as this, but there wasn't this notion that you have to constantly monitor effectiveness like there is under *FAS 133*. That effectiveness test has to take place, and it's going to be done at least quarterly under the statement. We always said that as long as you checked your effectiveness by the end of the reporting cycle, you'd be okay, but *FAS 133* now tells us that the effectiveness assessment has to happen on a quarterly basis.

What is highly effective? The statement doesn't actually come out and tell you what highly effective is. Rather, it gives examples of relationships that the FASB believes are highly effective. In those examples, they've come out with a correlation ratio between 90% and 110%. Somebody then wrote a letter to the FASB asking, "What if I had a correlation ratio between 70% and 130%? Would that be highly effective?" The FASB said that it wouldn't be highly effective. As such, we ended at the midpoint of those two, 80–120%, which is generally the measure that folks had been using under *FAS 80* anyway. So the 80–120% correlation is what's expected for a hedge relationship to be highly effective.

What drives effectiveness? Generally speaking, one needs to look at the underlying terms of the derivative and the terms of the hedged item to ensure that there's going to be an effective

hedging relationship. To the extent that notional amounts, remaining term, repricing dates, cash-flow dates, and the underlying basis is all lined up appropriately, then you can assume that you're going to have a highly effective hedge. You still must go through the documentation to indicate that you believe it's going to be highly effective. In terms of actually getting effectiveness, you'd want to line up these terms. The statement does provide a practical exception whereby you can use what's called the shortcut method. The shortcut method says that if you're using an interest rate swap (for example, in a hedging relationship with an underlying hedged item) and the terms of the swap and the terms of the hedged item match exactly, then you can assume that the change in fair value of the derivative equals the change in fair value of the hedged item.

The insurance industry initially said this is great. I've got a lot of shortcut type swaps on my books, and I don't have to do a lot of this effectiveness testing and monitoring. Then, the FASB clarified that the shortcut exception is only available when the instrument itself exactly matches the underlying hedged item. So, the critical terms, the significant terms, and things that I've laid out here, have to exactly match. If a swap expires on October 5, 2005, you'd expect that the hedged item would also have a maturity date of October 5, 2005. If you didn't, you can't use the shortcut method under the statement. You can still have a highly effective hedge, but you can't get that practicality exception under the statement. So the insurance industry hoped that they would account for most of their swaps under the shortcut exception, but we don't think that's ultimately going to be the case.

Effectiveness is a critical part of the statement because ineffectiveness in hedging relationships now will make its way into the income statement. We used to have ineffectiveness that would accumulate in that deferred gain or loss account. Those of you that are familiar with the *FAS 80* model know that you'd roll that ineffectiveness into the basis of the hedged item. In a nice constant yield method, you'd amortize in any of that ineffectiveness. That's not how it works under *FAS 133* because now we've put the derivative on balance sheet at fair value. Any ineffectiveness makes its way into the income statement immediately.

Now, for most of us in the insurance industry, the hedging programs that we've seen have tended to be more at a macro level than at a micro level, focused on hedging (for example, asset/liability

duration mismatches). For the most part, you really couldn't do that under *FAS 80*, although I think most companies did it and did some sort of a documentation exercise to get around *FAS 80*'s requirements; however, *FAS 133* absolutely changes how we're going to do hedging on a macro basis. In fact, in many ways, it will sound the death knell for portfolio hedging. You'll see why as we go through this.

What must be done in order to have a one-to-many hedge relationship, where one swap is hedging 10 bonds, or a pool of bonds? In order to pass the hedge test and use that pool as a hedged item, there needs to be a high level of homogeneity associated with each item in that pool. Each individual item within the pool is expected to have changes in fair value that are basically the same as the rest of the items in that pool. The homogeneity test was defined in an example in the standard. That example stated that if a derivative changes, for example, by 10%, the aggregate pool would change in fair value by 8–12% in the opposite direction. Additionally, the homogeneity test requires that each item within the pool also would have to change by the same 8–12%. It almost seems like we would have to have identical bonds in the pool with our one-to-many hedge relationship here in order for you to meet the homogeneity test. It looks like, at first blush, that it's going to be very difficult to do portfolio hedging under *FAS 133*.

A significant coup for the insurance world and for the banking world is what came out of the amendment in *Statement 138*, and that's the ability to hedge the benchmark interest rate. For those of you that were following the statement along the way, *FAS 133* defined interest rate risk as being the benchmark or base interest rate risk plus sector or credit spreads. For those of you that tended to hedge the Treasury rate, and not the credit risk, the statement would have the derivative that was based on the benchmark rate being marked to fair value in the income statement. Our hedged item, that encompassed credit spreads, is also being marked to fair value in the hedged item. There was going to be a high chance that you'd never achieve an effective hedge relationship.

After much lobbying, the FASB agreed with that and ultimately changed that in *FAS 138* so that now you can designate two benchmark rates of interest—either the Treasury benchmark or the LIBOR swap rate, as a hedged baseline benchmark interest rate. The FASB limited this

specifically to those two benchmark rates of interest. You cannot hedge prime. The credit spread is no longer part of the fair value and effectiveness process that I think is going to be good. As a result, I think most of the hedging relationships that the insurance world was doing prior to *FAS 133* will continue to be effective under *FAS 133*.

I mentioned the three types of hedges under *FAS 133*. First, there is fair-value hedging, which is a derivative that hedges changes in the fair value of existing assets, liabilities, or firm commitments. In cash-flow hedges, we're hedging the changes in fair value due to variable cash flows of an existing asset or liability or where we're hedging an anticipated purchase. There is a distinction between a fair-value hedge and a cash-flow hedge. Generally, in a fair-value hedge, you have something that is locked in, and the derivative is assisting you in unlocking that value. In a cash-flow hedge, something is variable, and the derivative helps you lock in that variable cash flow. The third hedge relationship pertains to foreign currencies.

To illustrate a fair value example, assume a company has fixed rate debt which is swapped to a variable rate through a designated interest rate swap (Chart 1). To the extent that rates move and the fair value of our swap increases, we're simply going to record that swap on our balance sheet at fair value. Remember all derivatives first go on the balance sheet. We're going to take that change in fair value and put it right in the income statement. The special accounting that we get under *FAS 133* now allows us to take our fixed rate debt, which we all know is normally a cost-basis liability, and mark it to a fair value. It is not *the* true fair value because the fair value is going to be based specifically on the hedge risk. We then make this offsetting adjustment for debt, a *FAS 133* fair value, which is the benchmark interest adjustment by increasing debt and recording the offset in the income statement. My derivative mark is sitting in my income statement. My debt, in this case, has been marked to fair value in my income statement. So, to the extent that I have a highly effective hedge, that is perfectly offsetting, there will be no impact on the income statement. The challenge comes when we don't have a perfect hedge. There's going to be some volatility caused by this accounting model.

Just to reiterate, in a fair value hedge, changes in pure value of the derivative are recognized in the income statement. Changes in the fair value of the hedged item also can be recognized in the

income statement so that you have nice matching. The problem with this model, and the first challenge, is that any ineffectiveness, to the extent our derivative and our hedged item don't line up perfectly, will be sitting right in current earnings.

The cash-flow model is a totally different model. This model will probably look more familiar to you because it's more of a *FAS 80* model (Chart 2). Let's say we're hedging floating rate debt, and we enter into a floating for fixed swap to lock in our interest rate risk. Suppose changes in interest rates drive changes in the fair value of the swap. That swap fair value is again put on the balance sheet at fair value. But, unlike a fair-value hedge, we take changes in the fair value of the swap, and record the offset in other comprehensive income. There is that separate component of equity where we're storing things like the *FAS 115* valuation adjustment, *FAS 87*, intangible assets, and some others. The *FAS 133* cash-flow hedge mark to fair value sits in other comprehensive income until that future variable exposure impacts earnings. In the case of the floating rate debt example, the exposure in earnings comes at each floating interest payment date.

As rates go up, for example, we're going to have higher interest expense on the debt. We get to bleed out the impact of the change in fair value of the derivative into the income statement and, in a way, not unlike what we do today, synthetically alter the interest expense that sits in the income statement. It's a slightly different model. It doesn't get into the income statement immediately like a fair value hedge model; rather, the derivative mark comes into the income statement as the underlying hedged item impacts income.

To reiterate again, for a cash-flow hedge, the derivative is recorded on balance sheet at fair value. The change in value of a derivative in a cash-flow hedge sits in other comprehensive income. It's warehoused there until our hedged item impacts the income statement. Then we slowly release the warehoused amount into the income statement. The key with a cash-flow hedge is to ensure that we're always in an underhedging position; that is, the amount of derivative change on a cumulative basis is less than the amount of hedged item change on a cumulative basis. To the extent that we have overhedged (for example we have too much notional of a derivative), the result is ineffectiveness, and the statement forces us, just like in a fair-value hedge, to put that ineffectiveness in the income statement immediately. It's important, in terms of designating

cash-flow hedges, that if we're going to err, we're going to do so on the side of underhedging so that we don't have that volatility in the income statement.

If you don't like the hedging models, the other solution is to simply record the derivative on the balance sheet at fair-value with the offset recorded in the income statement.

In summary, in fair-value hedges, the derivative is marked to fair value in the income statement. With the special treatment, the hedged item gets to be marked to fair value in the income statement as well. If we have a good hedge, those two marks to fair value offset one another. In the cash-flow hedge model, you mark the derivative to fair value on the balance sheet with the offset recorded in other comprehensive income. That amount is then released from other comprehensive income at the same time as when the underlying hedged item impacts the income statement.

Finally, there are hedges in net foreign investments. For the most part, *FAS 133* has carried forward the guidance in Statement 52, which says that the effective portion of a hedging relationship flows through the currency translation adjustment, which is where it is in today's set of financial statements. Finally, for those derivatives that are not designated as hedges or that are economic hedges, the derivative is recorded on the balance sheet at fair value with changes in fair value recorded directly in the income statement.

What does all that mean in terms of the models for the insurance industry? First and foremost, we talked about portfolio hedging being problematic because of the homogeneity test, which is a strict portfolio test. We think people are going to create smaller pools of more homogenous hedged items, or take advantage of the exception in the standard that lets you hedge all or a portion of a hedged item. They might carve the derivative up into many different pieces and create one-to-one relationships at a lower level rather than create one-to-many relationships and be subject to the homogeneity test.

Another implementation issue is the use of the shortcut method. Initially, this practicality exception seemed great. As we've been working with companies, though, we're seeing certain

instances where the shortcut exception is being used, but certainly not to the level that we had hoped to see initially when the practicality exception was put in *FAS 133*. Also, because *FAS 138* helped us with the definition of interest rate risk, the insurance industry can continue to hedge in a way that is similar to how it has always hedged. The assessment of hedge effectiveness, the documentation, and the recordkeeping is going to present a lot of challenges. We'll talk about some of those in a moment. Finally, I mentioned this notion of an embedded derivative and what all that means. That has a direct impact on a lot of the product that your companies are issuing today, and it will absolutely present some challenges to you.

There are products that are going to be impacted by *FAS 133*. Variable products, depending on whether there are guaranteed investment returns, might have to follow the *FAS 133* model for an embedded derivative. Equity-indexed annuities are a classic example of a debt instrument with an embedded derivative that requires bifurcation. Other life and annuity products to consider include market-value adjusted annuities and synthetic GICs. On the property and casualty side, we see catastrophe bonds and options. Here the distinction is whether the payment on the underlying contract is reimbursing us for losses incurred by us directly or whether it is simply a payoff based on some change in a CAT index? Changes in the CAT index that give us payments are going to be problematic and would represent derivatives. To the extent that we're being paid because we incurred losses on our specific properties, those contracts would fall under that normal insurance exclusion that we talked about.

Integrated risk products will also be impacted, as will weather derivatives. There is existing guidance out there for weather derivatives in Emerging Issues Task Force (EITF) Issue 99-2, which defines how you account for weather derivatives. It's outside of the scope unless you have an exchange-traded contract. It would then be inside the scope.

Let's discuss the Derivatives Implementation Group (DIG). The DIG was an unprecedented move by the FASB. Normally, when a statement as complicated as *FAS 133* is issued, the FASB issues an implementation guide. In fact, if you look back to *Statement 125*, the statement that deals with securitizations, there have been three implementation guides that have been issued. Rather than do the implementation guide, the FASB thought it would be more beneficial to do

some real-time implementation guidance through an advisory body called the Derivatives Implementation Group. That group is made up of five individuals from the big five accounting firms, five individuals from industry, and the FASB folks. The SEC folks sit on it too.

What happens is folks like you submit questions to the DIG about how you account for something under *FAS 133*, and the DIG deliberates it, and essentially will come up with, in most cases, some answer and provide it to the FASB for clearance. The DIG conclusions themselves are not authoritative. They're not authoritative until the FASB actually clears them.

Part of the challenge that we've seen in the insurance world is that a lot of the technical problems with *FAS 133* as they relate to products, for example, go to the DIG. They get deliberated by the general FASB staff, which is made up of people that might not have a great understanding of how insurance products work specifically. In a lot of cases, there's no resolution, and the process goes on and on. There have been several DIG issues that have addressed specific insurance products, like variable annuities.

A question was raised about whether a variable annuity is deemed to be a contract that has an embedded derivative or not because it actually credits based on the investment and underlying separate account portfolio? The FASB essentially said that the VA contract itself is the host and the only time that you'd have an embedded derivative is if the contract guaranteed some investment return at the end of the contract term without regard to the separate account performance.

This notion of payment alternatives at the end of the contract term is being re-deliberated as we speak. The AcSEC is meeting at the same time as this meeting. There might be situations where payment alternatives at the end of the contract actually do represent embedded derivatives. Stay tuned to this issue.

Equity-indexed life and annuity contracts. The question raised in this issue related to the underlying death benefit. Do I get to apply the insurance exclusion from the statement? The answer that came back was, yes, as long as there was no guaranteed equity-indexed investment

return. In the case of an equity-indexed annuity (EIA) product, the embedded option is an embedded derivative that needs to be bifurcated out and accounted for separately. What's happening with most EIAs is that companies are buying option portfolios that hedge the embedded option in the liability. There's not going to be a need for special accounting in terms of the hedging relationship; rather, the option portfolio will be marked to fair value through the income statement, as will the embedded derivative once it gets bifurcated out of the EIA liability. We're going to talk a little bit more about EIAs as we go through some of the issues that the industry is facing with *FAS 133*.

Market-value adjusted annuities. There was some concern that products with a market-value adjusted (MVA) feature would have an embedded derivative that would need to be bifurcated out. The DIG did address this particular issue and deemed that the market adjusted prepayment, the MVA feature, in fact, is clearly and closely related. MVAs appear to be okay for now.

We talked about CAT bonds. Is the loss event based on specific insured losses or is it simply tied to some CAT index? To the extent that it's really based on our insured losses, we get the insurance exclusion. If the losses are tied to an index, then we don't get the insurance exclusion, and we need to account for that embedded derivative or contract specifically as a derivative.

As for integrated risk products, the issue is whether we are going to be able to bifurcate out (to the extent that we have an integrated risk product) all of the features within that product. If you can't bifurcate it out, the statement says that you need to account for the entire contract at fair value through the income statement.

Weather derivatives are excluded from *FAS 133*, but we need to take a look at EITF Issue 99-2. If you're writing these products, you're safe from *FAS 133*, but you do have to look at EITF 99-2.

Why don't we take a minute just to go through some of the complexities that arise from the interaction of *FAS 133* and *FAS 97*. It's really a source of several issues. The FASB, at this point, has pulled all of the conclusions that we just talked about from the table. The AcSEC will

take a look at these issues and determine the best way to proceed because there's a number of instances where *FAS 97* and *FAS 133* are at complete odds. AcSEC is working on that.

I'd like to illustrate some of the issues that have come up. The statement specifically gave us guidance to use what's called a *with-and-without method* when we're bifurcating an EIA product at issue. The approach is to take the embedded option in an EIA liability and get its fair value at issuance. Rather than simply get its fair value at issuance and then take the debt host contract's fair value at issuance and add the two together, the FASB decided that a with-or-without approach would be better so that there is no gain or loss at the issuance of an EIA contract.

The solve-for here is the host instrument. You take the fair value of the embedded derivative. Then deduct this amount from the premium to solve for the host instrument. Even though the embedded piece has been bifurcated out, the host instrument still gets whatever accounting governed that instrument before. So, in the case of an EIA, once we strip out the host, which was the single-premium deferred annuity (SPDA), the governing accounting literature for that contract is *FAS 97*. As a result, the host contract is credited to up the guaranteed minimum for an EIA contract.

We have the host sort of covered in terms of how we account for that. As for the option value, we need to get its fair value at issuance, and we can get some broker quotes, model it, or come up with a true fair value. Once we have its value, then you're simply going to mark that embedded derivative to a fair value over the duration of the contract. In a 10% up market, the fair value of the option has gone to almost \$32,000. Our accreted host value has gone to about \$77,000. That results in a *FAS 133* value of \$110,000. In a down market, you can see that when we look at the fair value of the option and the host contract (the host contract value hasn't changed). You can see the value of the combined instrument is less than \$100,000.

Why does that present the problem? Under *FAS 97*, for the most part, the issue is whether or not *FAS 97* governs the whole contract once we've bifurcated it out. In other words, when we look at these down scenarios, we have a *FAS 133* value of \$95,679 for 10% down or \$89,000 for 20% down. We know that, on a *FAS 97* basis, we have a minimum of \$100,000 premium that we

received. We have to hold that contract at that \$100,000 account value. There's a little bit of accretion to go from 100 to 104, but the tentative conclusion by the FASB was that you wouldn't hold the *FAS 133* value for this contract; rather, you'd have to hold the *FAS 97* floor value, which is \$100,000. We initially talked about having a nice economic hedge. We're reporting the change in asset option value of the hedge in the income statement. The option value of the liability would also be reported in the income statement as well. We'd get a nice wash. We now have a *FAS 97* floor on the liability side and that's going to cause us to have a big loss in down markets. This is one of the challenges that's out there. There has been a DIG issue that was submitted that said once we bifurcate the embedded from the host, *FAS 97* shouldn't then govern the recombined instrument. Others have said that it really should govern the recombined instrument. AcSEC is deliberating this and is working with the FASB to come up with an answer here.

FROM THE FLOOR: How would something like an unearned front-end load come into this? If you bifurcate, and *FAS 97* doesn't count anymore, then it's not an issue. However, if *FAS 97* does come into play, that is another issue.

MR. SANTOSUOSSO: That's right, AcSEC is really looking at the valuation of all of these nontraditional contracts and whether the *FAS 97* approach to valuation is still appropriate. AcSEC has come up with three models that it is going to deliberate that are going to try and address some of the inconsistencies that exist, such as when is *FAS 97* versus *FAS 133* appropriate. It's still tentative. There are no answers out there for us yet, and it's creating problems. From what I'm seeing, a lot of our clients are being paralyzed because there are just no good answers at this point in time to move forward on a *FAS 133* basis. The August meeting of the DIG was cancelled because a lot of the insurance issues hadn't been resolved. The next meeting is in October 2000, obviously two months before the implementation date. There are still plenty of challenges out there on the insurance side.

FROM THE FLOOR: Is there any chance that, for compromise purposes, the floor value could be the cash surrender value of 90% accumulating at 3%?

MR. SANTOSUOSSO: One of the models that the AcSEC is looking at is called the ready-access model. That would consider some sort of a cash value type reserve for the particular contract. That's a possibility. That's one of the models that's on the table. The problem with that model is that it assumes termination. It assumes that you're going to terminate the contract immediately. That might or might not be the case. *FAS 97* specifically states that you can't reserve assuming that the contractholder will do something detrimental. At a minimum, a contractholder could hold the contract and get the guaranteed minimum at the end. That's why most companies have tended to focus on account value. One of the models being proposed is allowing this floor to not come into play. Simply follow the accretion accounting for the host, and then let the *FAS 133* value be the *FAS 133* value and leave it at that.

One of the other issues is fair-value determinations. There is an issue out there specific to EIAs, for example, in terms of how companies are going to fair value that embedded derivative. The issue is centered around what the insurance company has written in terms of the option in an EIA contract? Has it written an option for one term, after which the insurance company gets to reset the participation rate at that point in time and reset some of the key fair-value determinants. Or has it written a series of forward-starting options to age 85, which is when most of these contracts annuitize? That's a big issue and a big challenge. Most of the clients that we've been talking to are hoping that the answer lies in doing a valuation that assumes one term. The issue is coming down to whether or not the forward-starting options actually represent derivatives. Is there a true notional if we don't know what our participation rate is? The fair value determinations are out there, and, as we talked about, there are three models that AcSEC is looking at to really revisit reserving for all of these nontraditional type contracts.

The system constraints and requirements will be significant. The notion that we have to compute a *FAS 133* value on a particular hedged item and store that somewhere is going to create some complications. Today we probably have systems that have a statutory value and a GAAP value. Now we're going to need a statutory value, maybe a GAAP value and then some form of a *FAS 133* value as well. In addition, the system is going to need to be able to do some effectiveness testing for you. It's going to need to show the high level of correlation.

The SEC took the opportunity to challenge those who adopted *FAS 133* early by asking them for hedge packages. Show me what you did to document the fact that you have a nice hedge relationship here. For the most part, the early adopters were folks that didn't have complicated derivatives. They simply had forward contracts, in the case of foreign exchange risk, that they accounted for *FAS 52* hedges. As a result, it appeared that those companies did not have to do a whole lot of work for *FAS 133*. When the SEC asked for the hedge package and didn't receive it, those companies got beat up, and the SEC, in cases where the amount was immaterial, required them to restate the financial statements. This whole documentation notion, having a package that supports the hedging relationship having a highly effective hedge, and the reasons why an instrument is a good hedging instrument, is going to be key on a going-forward basis under *FAS 133*. We'll talk briefly about some alternatives for minimizing the impact of *FAS 133* as well.

Fair-value determinations, for the most part, are balance-sheet accounting items. In the case of swaps that back available-for-sale assets, we do put these derivatives or swap derivatives, on the balance sheet. However, the offset is recorded in other comprehensive income. It's different when we talk about a balance sheet model and when we actually talk about doing fair value that's going to impact the income statement. I think most companies have come to grips with that. If they're now going to show volatility in the income statement, they're starting to revisit the way that they do their fair-value accounting that they used to do just simply for disclosure purposes in most cases. In some cases, depending on how complicated the underlying derivative instruments are, companies are going to have to consider multiple option valuations in order to come up with a decent value.

Information systems. I can't speak enough about the requirements, specifically the need to track changes in the fair values of a hedged item. My guess is the instruments will be fairly straightforward. There are systems in the marketplace that will allow you to do that if you haven't already built your systems in-house. You're going to need some sort of system that goes between the instrument system and the hedged item system, if you will, that can do some correlation testing for you to make sure that you still have a highly effective hedge both retrospectively and on a prospective basis. Remember, we have to believe we're going to have a

highly effective hedge over the life of the hedging relationship. You need to continue to monitor and challenge that.

We talked about the cash-flow hedge model, and it seemed relatively straightforward. We need to bleed warehoused amounts and other comprehensive income into the income statement when the hedged item impacts income. Think about what that could ultimately be in terms of tracking all that information. Today we simply do a basis adjustment, roll it into the hedged item and let it run its course. Under this model, we're going to have to track each of the individual slivers that are coming into the income statement and make sure that we're putting it in earnings at the right time.

Portfolio hedging. There is a need first to create pools that we believe are going to pass the homogeneity test, but we also need to track that. I mentioned one alternative to portfolio hedging is trying to create a one-to-one relationship where we might have one large swap, with a hundred million notional dollars of a swap and 10 bonds. Rather than simply doing a one-to-many relationship, you can sliver up the derivative and take a piece of the derivative and attach it to the bond. In order to do that, you're going to need a system to do the stripping and to track all that. We also have a hedged item. Should you sell it mid-month or should it be called mid-month? You will need a system to tell you that the hedged item that was part of the hedging relationship is no longer part of a hedged relationship. Now you presumably have a derivative on the other side that needs a companion in order to get the special treatment.

I mentioned the rigorous documentation requirements. Accounting under *FAS 133* will have to be an automated approach. You're not going to be able to do this manually, and you won't want to. You're going to need to develop your system specs in order to capture the documentation requirements. An alternative for minimizing the impact is securitization activities, which enable you to eliminate interest rate risk by moving the funding source closer to a pool of securitized assets or through taking tranches of a securitization that might meet your risk management needs without having to necessarily use derivative instruments.

Refinement of hedging strategies. Because we don't have great effective hedges today we're going to have the opportunity to look for hedges that will meet the shortcut criteria. What we're seeing is companies actually going in and terminating certain positions that aren't going to give a good *FAS 133* answer. They are designing hedges that are going to be perfect so that they don't have to go through a lot of the tough recordkeeping requirements.

Changing the product pricing and design is always easier said than done. When we look at some of these nontraditional product features, we see that the bells and whistles are going to cause us problems under *FAS 133*. We have to figure out a way to change that, although, for the most part, I think the marketplace is going to dictate that. That one is easier said than done. Finally, it will be no small task to educate the analysts. In 1994, *FAS 115* came out, and for the most part, it was easy to tell the analysts that it was a one-sided mark to fair value on the assets because we captured that mark. We put it in other comprehensive income. It was right there for all the analysts to see. In 1995, rates shot downward. We had gains. It was very easy for the analysts to say there's a big layer of equity there that really is due to unrealized gains. I'm going to pull that out when I analyze your company. The question is going to be, what are they going to do with respect to derivatives? What if there are large derivative gains and losses? As an insurance entity, you're a risk taker, and you're managing risks through your derivatives. I don't think it's going to be easy for an analyst to conclude that as a risk taker and a risk manager, they should exclude changes in the derivative portfolio in evaluating you as a company. This notion of educating analysts is going to be key in showing them and telling them what you think the impact of *FAS 133* will be on your overall risk management strategies.

Transition is actually, as usual, pretty difficult. You basically have to approach transition here by putting your existing hedge program into one of the slots of a *FAS 133* program. If you have a hedging relationship today, which is more like a fair-value hedge accounting relationship under *FAS 133*, you do your transition in the income statement. You mark the derivative to fair value, and you do that through a cumulative effect adjustment. If you had what would be a cash-flow hedge today, you'll do your marks and capture the impact of the cumulative effect in other comprehensive income.

It is transition driven. We have to put the derivatives on the balance sheet to start. That's going to be step one. What we're seeing, in a lot of cases, is companies have focused on the instruments, the swap book, the futures book or the option book that we have out there when dealing with that from a *FAS 133* standpoint. One of the bigger challenges is going to be digging through the bond portfolios to find evidence of embedded derivatives or looking at your insurance products to find evidence of embedded derivatives. You want to get a game plan together on how you're going to deal with those particular derivatives under *FAS 133*. I know it's not easy because the DIG is deliberating all of these issues constantly. We don't have firm ground to stand on. If you think *FAS 133* is going to be delayed again, I think you're going to be mistaken. I think they're going to move forward.

If they don't reach conclusions, ultimately what will happen is you'll have to dictate practice. You'll do certain things like take a position and account for things. Then, through the SEC comment letter process, they'll come back and challenge you and ultimately, if need be, come up with a Staff Accounting Bulletin that clarifies things and at least gives us some guidance that we can follow. I have heard rumors that many in the insurance industry believe *FAS 133* is going to be delayed. I don't think that's going to happen. The SEC is pushing very hard on this, and we would be extremely surprised if that happens.

Implementation planning. This is probably a little late, given that we're three months away. I think most of your companies have already set up the task force and have the appropriate individuals involved in the process. How are you going to get fair values, for example? How are you going to track that? Where are you going to store that information? Do I have effective hedges? If I don't, my CFO is not going to be happy because that ineffectiveness will sit in the income statement in the case of fair-value hedges. Can I perfect my hedges? In cases where I used swaps on a portfolio basis, can I terminate those swaps? What's the economic cost of that? Can I then go out and get swaps that are more closely aligned to the hedged items? Then, do I have some new opportunities? *FAS 133* expanded the flexibility for doing foreign currency hedging for forecasted transactions with foreign currency forwards. There are some opportunities that I can now use, whereas before I had to hedge those risks with options that were difficult in terms of my liquidity.

Cost is another implementation issue. Also, evaluate hedge designation systems closely. Now that I have a GAAP accounting hedge defined under *FAS 133*, what does all that mean from a tax standpoint? I still have to know what the tax hedging rules are and what the impact of *FAS 133* is going to be on taxes.

FROM THE FLOOR: Are variable annuities impacted by *FAS 133*?

MR. SANTOSUOSSO: Variable annuities, generally speaking, do not contain derivatives. However, if the contract is written whereby the insurer is guaranteeing some investment return, that's an example that would contain an embedded derivative that would be required to be separated out, bifurcated, and accounted for separately. If we have a regular variable annuity where Contractholder A invests his premium in the growth fund, it is not an issue. Say the contract says you can invest it in a growth fund, and the growth fund is negative over the 10-year term. If we say we'll guarantee your premium back, that's an embedded derivative. I don't want to caveat remarks, but, again, a great many of these things are being debated.

MR. HAMBRO: There are two other circumstances in variable annuities. One is the guaranteed minimum death benefit. Until recently that was supposed to be excluded based on traditional insurance.

MR. SANTOSUOSSO: That's right.

MR. HAMBRO: That's back on the table, but if we had to bet on it, John and I probably would say that that guaranteed minimum death benefits will be excluded.

MR. SANTOSUOSSO: That's correct.

MR. HAMBRO: The other one is the guaranteed retirement income protection. Say the company has a roll-up of 6%, but in order to get that, the client has to apply that to a guaranteed cost settlement option at relatively unfavorable rates. That's the one that's kind of going to go in between because you can't take that amount in cash like you can with a guaranteed accumulated

value benefit. You have to apply it to some sort of a settlement option. That's the one that's pretty uncertain at this point.

MR. SANTOSUOSSO: That's right.

MS. ANITA L. JONES: John, doesn't *FAS 133* open the door for a company to be able to re-categorize its *FAS 115* designations and to move more of the business into trading, if perchance, you are owned by a non U.S. insured that's less concerned about volatility?

MR. SANTOSUOSSO: That's absolutely true. There will be a holiday, too, for those of you that are wondering about held-to-maturity (HTM) securities that might be part of a hedging program today. There will be yet another holiday to move HTM securities where you want to hedge interest rate risk on those securities to available for sale. You specifically can't hedge interest rate risk of an HTM security post-*FAS 133*. There will be a holiday period in which to reclass. One risk manager said to me, "John, why don't we forget about all this *FAS 133* stuff and put everything on our balance sheet at fair value? Let the marks in fair value go through the income statement, and then we'll educate the analysts about how we're doing hedging. You should be comfortable with our risk management approach and forget about what's in the income statement. That may or may not work. Most of the chief financial officers that I talk to aren't interested in trying that particular approach. One of the things that we say is, don't go crazy to the extent that you've got some short-dated swaps, for example, where you know what the fair value is today. That's going to run off as it pulls to par down to zero anyway. Don't go crazy designating that stuff. If the amount is clearly immaterial, let it run through the income statement.

MR. DONALD E. FRITZ: You discussed *FAS 97* overriding *FAS 133* and the fair value determination of one year versus multiple years on the options on the liability side. If you guess wrong in implementing that, and you later come back, is that restatement of income?

MR. SANTOSUOSSO: It's a great question. I don't know the answer but it could be. The SEC hasn't indicated either way what would happen in that case. We hope there will be leniency

in that case, particularly when there wasn't guidance and you took a stab. We don't know. The early adopters got killed by the SEC, and they were trying to set an example. At that point, we told all of our clients not to early adopt because they would get beat up.

FROM THE FLOOR: Some variable universal life contracts have no lapse guarantees. For instance, you pay a certain minimum level of premium for five years. Even if the account value is not large enough for the charges, the contract continues. Is that an embedded derivative?

MR. HAMBRO: No, that's going to get a traditional insurance exclusion.

FROM THE FLOOR: What would cause a synthetic GIC to be an embedded derivative?

MR. SANTOSUOSSO: The argument there is that, essentially, the insurer has written a put option for the underlying benefit plan. As a result, a synthetic GIC would, in fact, represent an embedded derivative. That's where they're leaning right now. There's an issue out there that they've debated and discussed, but the argument is that simply the insurer has written a put option for the benefit plan; that put should be put on the balance sheet at fair value.

FROM THE FLOOR: Will FASB solve the conflicts in the various accounting standards?

MR. SANTOSUOSSO: They might get there. Are you talking about the conflict between *FAS 97* and *FAS 133*? FASB might end up getting there anyway because of the additional valuation models that AcSEC is now discussing.

FROM THE FLOOR: What is AcSEC?

MR. SANTOSUOSSO: It's the Accounting Standards Executive Committee. It's a body of the AICPA.

When I say AcSEC, I really mean the Nontraditional Task Force. Those are the folks that the FASB really has charged with pushing this thing forward.

FROM THE FLOOR: Suppose you have a variable immediate annuity contract that is a payment that varies with your funds. If you have a minimum guaranteed benefit on that, would that be considered clearly and closely related, or is that something you must bifurcate?

MR. SANTOSUOSSO: Is it a good guarantee or is it a diminimus guarantee?

FROM THE FLOOR: I don't think that it would be diminimus.

MR. HAMBRO: So, is there a guarantee that you'll at least get income payments at a certain level?

FROM THE FLOOR: The income payments would never fall below this benchmark.

MR. SANTOSUOSSO: It could be an embedded derivative. Without looking at the contract, I would say that it very well could be. I know it's not a great answer, but that's sort of the climate that we're in. Assume that it is, analyze it, and then hopefully it won't be once deliberations are finished.

There is one other point on the income statement. I mentioned the conversation I had with a client that said, "We'll just flow it through the income statement." The statement, for those of you that are wrestling with it, doesn't provide you with any guidance as to where to put these derivative marks, or the hedged item marks, for that matter in the income statement. I am talking out of school a little bit, but I think there's enough leniency in the statement that permits a company to determine where it might want to put those marks. What we're seeing is most folks gravitating toward putting derivative marks in what's called the realized gain line now and potentially renaming the realized gains line to something that says realized investment gains and other gains or other derivative gains. It's sort of a moot point. I often get asked, where should we put the marks related to hedge ineffectiveness? It's sort of a moot point because the statement tells you that you have to disclose where any ineffectiveness is being recorded. You've got to tell the reader where you're putting that ineffectiveness.

Let's go back to the analysts in the insurance world. Realized gains are an amount that the analysts have viewed as discretionary over the years. As a result, they have generally pulled that out for determining operating income. One of the options available to companies is putting the marks in there, and telling the world that they are in there. Then, maybe the analysts will pull it out completely as well.

MR. HAMBRO: John, what is the expected outcome of the recent Long Duration Task Force's deliberations?

MR. SANTOSUOSSO: Michael, when I talk to our folks that sit on the task force, I sense a lot of frustration. It seems like whenever the task force goes to the FASB with these insurance product issues, the FASB members' eyes tend to glass over when the task force gets into these discussions.

The FASB doesn't fully understand all the issues. I think the SEC is going to start to get involved as well in terms of moving that thing forward. I'd love to tell you that we're close to getting resolution on all the issues, but the August meeting was cancelled because there wasn't any resolution of the insurance product questions in this natural conflict that exists between *FAS 97* and *FAS 133*. I'm eager to see what will come out of the AcSEC in the near future.

CHART 1
Fair Value Example

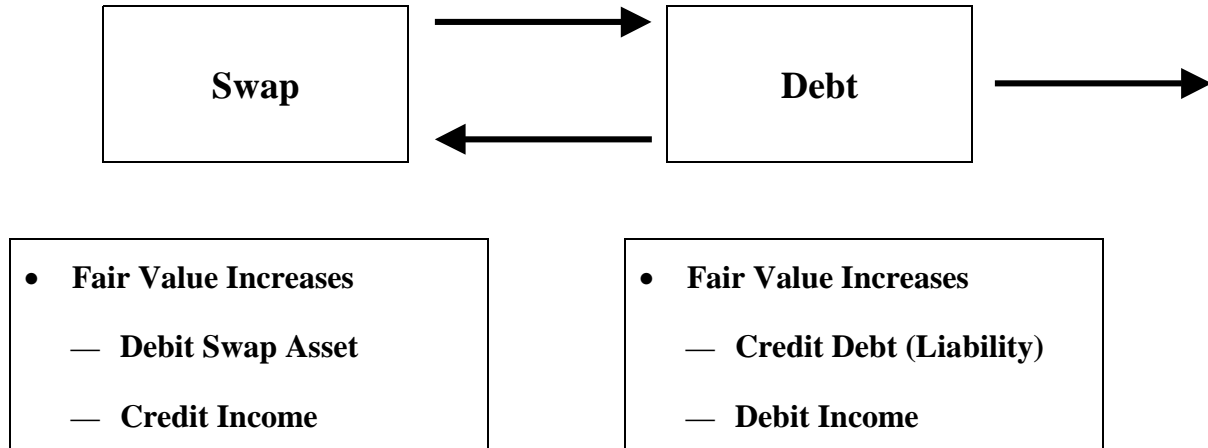


CHART 2
Cash-Flow Example

