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Session 8TS
GAAP Refresher

Instructors: ROD L. BUBKE
MICHAEL J. O'CONNOR

Summary: If you are new to U.S. GAAP accounting or need a refresher, the instructors in this teaching session review the actuarial aspects, methods and considerations of reporting under FAS 60 and FAS 97. Examples and financial statement case studies are introduced.

MR. MICHAEL O'CONNOR: Welcome to Session 8, "GAAP Refresher." We've got an hour and a half to go over a bunch of issues related to GAAP, and we're trying to cover in this type of a session more breadth than depth, because we're trying to cover a large number of topics: FAS 97, FAS 60, FAS 120, FAS 133.

The prepared presentations are meant to cover breadth of issues, and we can leave it up to you to bring up specific issues that you want more depth on in the Q&A part of the hour and a half that we have.

Let me do a quick introduction: Rod Bubke is an FSA member of the Academy. He's Life Financial Vice President at FBL Financial Group in Des Moines, Iowa. He's responsible for all financial reporting and serves as the appointed actuary for that group of companies.

My name is Mike O'Connor. I'm an FSA member of the Academy at Tillinghast's Minneapolis office and delighted to be here in some nice warm weather.

One thing that might tend to slow us down is for being a presenter, the Society gave us a pen and a little laser combination, so if we start playing with that too

Note: The chart(s) referred to in the text can be found at the end of the manuscript.

much, it does tend to distract; but it actually works, too.

One of the topics I'm going to be covering is FAS 60. There are a number of issues that I'm going to discuss, including "What's the scope of this pronouncement?" What are some of the general principles? What's the liability for future benefits? I'll cover DAC assets and some issues around recoverability. I'll show a simple income statement presentation, an example of a term product and a balance sheet, and then talk about some of the key differences with FAS 97. I'm sure you're aware that FAS 60 came first. It was approved back in the early '70s – I forget the exact year. It was around 1974, I think.

After FAS 60, I will be discussing FAS 133 (this is a more recent one). Companies had to adopt it. I think most companies adopted it year-end 2001. It's a statement that is accounting for derivative instruments and hedging activities in some of the same categories.

What's the scope? With this one, I think it's more important to understand what was the problem that the accountants were trying to fix; so we'll go into that in some detail. We'll talk about some of the general principles and then specifically, what is the definition of a derivative. Then for some products, whether there is an embedded derivative, what's that?

One of the subgroups working to clarify a lot of these issues around FAS 133 is this derivatives implementation group, the DIG. They've put together, I think it's 250, issue papers clarifying how to interpret FAS 133 on very specific issues. There are a number of issue papers that are related to insurance contracts. Also, I'll go into a numeric example for an equity-indexed annuity.

To Whom Does FAS 60 Apply?
The first question in FAS 60 is to whom does it apply? In this day and age, most insurance companies in the United States are stock companies; so it applies to stock life companies, to P&C companies and a few other companies that probably most of the people in this room aren't familiar with or employed by.

This pronouncement does not apply to mutual or fraternal companies. There are other FASB pronouncements that apply to those companies.

General Principles Duration. In terms of some of the general principles, the key distinction is a short-duration contract versus a long-duration contract. You can see some of the defining characteristics: they are for a short period of coverage, they allow insurers to cancel contracts, they allow insurers to modify terms or premiums at the end of a coverage period, and they include most P&C contracts and credit life. Where this comes into play—I think it's a non-traditional, long-duration contract task force within the AICPA that has tried to clarify some issues that have come up over the last several years. It's related to GMDB reserving, whether you

have to reserve for GMIBs, what to do about internal replacements, those types of issues.

These are the two kinds of forks in the road, if you will. Short-duration contracts have one whole framework for reporting; long-duration contracts have a different framework.

Premium Recognition. What are some of the general principles? A key one is premium recognition. Most of the contracts – annuity contracts, life contracts, and health contracts – are long-duration contracts. So premiums are recognized when due; or if it's an SBDA, obviously when you receive the premium.

Deferred Acquisitions Costs. Deferred acquisitions costs: I'll go into this in more detail about some of the diversity of practice in the industry in terms of what types of expenses get included and what you can defer. Items such as commissions, the policy issue costs, underwriting medical fees (let's say on a life contract)—all of those costs typically would be deferred. In GAAP that means if you don't recognize expense today, you recognize the expense over some lifetime. And the definition of lifetime for a FAS 60 contract is the premium stream.

You're to capitalize and charge them as an expense. The amortization of that DAC uses the same assumptions as what you would use in your reserve calculation.

Some of these provisions are fairly unique, specifically on the amount and types of expenses, and therefore on the dollar amounts of expenses that you can defer. For example, under FAS 91, if you are a mortgage originator, you'd have a much tighter set of expenses that you could defer. It's fairly liberal in the sense of the types of expenses that an insurance company can defer.

Liability for Future Benefits Typical Calculations. On the liability side, this is a typical actuarial calculation: Present value future benefits minus present value future net premiums. It is a net level reserve; so in contrast to statutory, if you have a one-year preliminary term type of reserving, in GAAP you do not do that. You start accruing for your reserve right away at point of issue. There's no concept of deferring the accrual for a year or two like there is under statutory.

Material Assumptions. In those calculations, and again these are the same assumptions that you would use on your DAC side, you have to include the material assumptions: lapses, mortality, morbidity, interest rates, inflation, the premium pattern.

For some contracts maybe these would be applicable; so you wouldn't have to include them. For example, if there's a life-contingent annuity, obviously a customer can't lapse the contract; but the mortality would be a critical component, as well as your interest yields.

Incorporate Conservatism. Another key distinction in FAS 60 is the requirement to put in a provision for adverse deviation, or PAD. You typically hear people refer to it as a PAD.

That is one key distinction in FAS 60. They say it's best estimate, or in some more recent things coming out of FASB, it might be something that is more stochastic in nature—but again, more of a best estimate.

A key item here is if you introduce conservatism, the test is that it has to increase the net liability; and the net liability is the GAAP reserve minus your DAC. It's kind of a net reserve, but it is the benefit reserve less your DAC. If you change an assumption and your thinking is you're putting in conservatism, the acid test, if you will, is whether or not that net liability increases. I think it lapses on a long-term care policy.

Some contracts, if you had a higher lapse assumption in the future years, you think it would do one thing to your net reserve. But in long-term care, putting in the higher lapses would not necessarily be conservative, as I think some companies have experienced during the past couple of years.

DAC Assets

Getting back to the DAC question, this is directly from FAS 60: "Costs that vary with primarily related to the acquisition of new and renewal insurance contracts shall be capitalized and charged to expense in proportion to premium revenue recognized."

What does this mean? This is where practice within the industry has probably changed a lot during the almost 30 years since it came out. A couple of key phrases are "vary with" and "primarily related." But for me, at least, one of the confusing phrases is, "renewal insurance contracts." What does that mean?

What are some of the questions? Obviously, if you're looking at the bottom line, a key question is, "That language is great, but can you just tell me what I can defer?" These are some tough questions, and this is where companies have changed the practice over the years. I know I've had numerous discussions with auditors about are they still in compliance with FAS 60?

How about your internal marketing costs? Let's say you were in a line of business in which your sales were either stagnant or declining, but yet you increased your internal marketing costs. Does that vary with and is that primarily related to acquisition of new business? Those are some of the discussions that companies have to have with their auditors.

How about the salaries of underwriters? How about overhead? Product development? This is if you have product development actuaries working on developing new products, filing them, getting them approved. What about agent

licensing? If you have to spend whatever it is to license your agents to sell business, is that primarily related to the acquisition of new business? How about systems costs related to the above? How about IMSA costs? These are areas where I think the practice has varied a fair amount especially over the last 20 years throughout the industry.

There was a textbook that came out from what was then the accounting firm Ernst & Whinney. I believe it was orange-colored, but it was labeled *GAAP: Stock Life Companies*. In there, they had a lot of language around, for example, "What does that mean, 'vary with' and 'is primarily related to?'" Over the years, I think companies have gotten much more aggressive in terms of what they consider to be the acquisition costs that they can defer.

There is a quote in the *Audit Guide*. I think shortly after FAS 60 came out, the accounting profession—I assume it was the AICPA—came out with something called the *Audit Guide* to try to explain in more concrete language what a lot of FAS 60 meant. They have a quote: "Inclusion of any indirect expenses requires judgment on part of company and its auditors." Indirect expenses are things like systems costs. If you are doing some life business and you have an underwriting department, what if you put in a new system to facilitate that underwriting process—to track it, to record it, all that type of stuff? That's the type of indirect expense that potentially can be deferred.

My impression of where the accounting firms are and probably will be in the future is: no matter where you are on the spectrum in terms to being conservative to aggressive on deferring, the main thing is that you're consistent from period to period. They would definitely not want a company to be aggressive one period and conservative the next period because it's obvious what the motivation is if you're doing that.

Recoverability

How about recoverability? Here, too, are some differences between FAS 60 and FAS 97.

I think the main thing is with FAS 60, when you start off GAAP-ing a product, those assumptions are locked in. Periodically you need to demonstrate recoverability of your DAC asset. Do you have enough margin from whatever source in the future to pay for your unamortized DAC? Periodically you have to do some type of recoverability demonstration. The rigor of that demonstration tends to be, frankly, related to how close you are to a getting into a non-recoverable situation.

If you get into that situation though, the first priority is that you write off a portion or potentially all of your DAC. But the PADs are still in there.

The next step, though, is that you would reduce or eliminate the PADs. If that wasn't enough and you still had a recoverability issue, what you would have to do is

increase your reserve. If you've got a benefit reserve and a DAC, you reduce the DAC potentially all the way down to zero and then potentially have to increase the reserves. So that's the hierarchy of what you would have to do if you got into a situation where your DAC was not recoverable.

The testing is done at the aggregate level, not necessarily at an issue-year level. A general principle within the recoverability testing is that you should not reflect a loss today if you expect future profits. What they're saying is, don't try to take a bunch of losses today to set yourself up to make money in the future. That's clearly what that type of requirement is getting at. If you have gains today but future losses, you have to adjust your reserves.

Presentation

For FAS 60, and again with FAS 97, there are some presentation differences. What does the income statement look like? There are some clear differences between FAS 60 and FAS 97.

FAS 60 is the one that is probably more actuarial in nature. And frankly, if you look at our software at Tillinghast, even though we call it a GAAP income statement, it's kind of a pseudo-GAAP income statement. On the FAS 97 business, for example, we're showing annuity premium as premium; but technically that's not a correct presentation. It's more actuarial in nature, if you will.

But for FAS 60, the income statement premium is all revenue, and the amortization of DAC is an expense. Obviously when you establish your DAC, it's a negative expense; so if you have a $100 commission, you set up a $100 DAC, and it's a negative expense of $100. In the future you would amortize that $100.

On the balance sheet side, reserves are a typical actuarial calculation—future benefits and expenses and DAC assets for deferred acquisition costs. The premiums due would show up on the balance sheet as well.

This is an example I just put together just to show the types of things that would go into a calculation (Chart 1). This is not necessarily a real-life example because I had to get it to fit on one page, but the mechanics behind it are very similar or relevant to this type of a product.

It's a life policy. You've got premiums, face amount and issue costs. If anybody wants the details behind this, I could easily e-mail the spreadsheet just so you can see it. The beginning reserves are calculated, and this is assuming some type of lapse pattern; but the reserves are taking that into account. What's the present day future benefits minus present value future net premiums? Toward the bottom, I show all the premiums as split out between commissions, issue expenses, maintenance costs and death benefits. The total net premiums for all of those components are about 94.5 percent of the premium. Therefore, for a FAS 60

product, you would expect that the pretax profits would be 100 percent minus that, which would be 5.5 percent.

On the income statement, you've got premiums and investment income as your revenue items (Chart 2). The investment income in here, I'm not sure what I would call it, but it's related to investment income off the net GAAP reserve. In real life, your investment income would be related to the actual invested assets you have, which are more related to the statutory reserves.

To make the math work out to be what you expect, you have to assume that you've got assets equal to a net GAAP reserve. What I mean by that is to get that final column to work out where your premiums are a flat percentage of premium—5.55 percent—to get that to work out in the mechanics of FAS 60, you have to assume that you've got invested assets equal to your net GAAP reserve. If you do that and do the math correctly, you will get a level percent of premium profit as pretax.

FAS 60 and FAS 97: Key Differences

What are the differences with FAS 97? The DAC amortization for FAS 60, the revenue stream is premium. For FAS 97 investment contracts, it is the expected gross profits.

For recoverability, there are some differences. For example, for FAS 97, there are frankly some issues of whether you can do the same type of recoverability testing for an investment contract. In real life, I think companies just treat it comparably, but you would never get to the point of increasing reserve for investment contract, because the benefit reserve is the account value, and that is the reserve.

Key differences for FAS 60: Your assumptions are locked in; for 97, you periodically unlocked them. The FAS 60 requires a provision for adverse deviation, a margin for conservatism. FAS 97 says it's your best estimates. The mechanics, as you're probably well aware, with FAS 60, you would typically use a factor method. You develop your factors at issue and lock them in and crank our your valuation in the future, your reserve factors and your DAC factors.

FAS 97 is more complicated. You have to keep track of historical, as well as future, projections. When you want to lock your future projections, you have to recombine that with what you've experienced historically to come up with a new revenue stream.

FAS 133

Hopping into FAS 133: This was approved just a few years ago, and I think companies had to adopt it the end of 2001, although a couple of companies adopted it early.

This is a standardized treatment for derivatives and embedded derivative instruments. I'll get into what some of the prior practices were.

Prior Practice Problems
There was a lack of guidance from the accounting profession, which led to an inconsistent treatment of derivatives. For example, some companies, if they were doing some hedging going back to the mid-'90s, would have potentially been treating it differently whether it were an insurance company versus a bank versus some other type of company.

What some companies were doing was deferring gains from losses from the hedge, and what you can do there has changed fairly significantly under FAS 133. Many hedge instruments were not fair valued—they weren't carried on their books at market value.

Disclosure was poor. By and large, I think disclosure is better today. There was definitely a lack of transparency about what was going on. For example, look at the problems with Fannie Mae recently, in terms of similar hedging activity. The lack of transparency there is a big issue in the world today.

General Principles
What are some of the general principles in FAS 133?

Derivatives are an asset or liability; therefore, they have to be in your financials. Fair value is frankly the only measure for a derivative under the FAS 133. The fair value for derivatives is market value. If it's an externally bought and sold instrument, it's relatively easy, in most cases, to get market prices.

In some situations, FAS 133 does allow some special accounting, but this special accounting doesn't violate any of these general principles.
A fair value hedge: If you have an instrument that's being carried on your balance sheet at fair value, at market value, and you apply a hedge against that to try to minimize the market value swings, you can do that. But to the extent that your hedge is ineffective, if one side of your balance sheet goes up 20, and the other side of your balance sheet only goes up 18, that $2difference has to go through your income statement.

But there is some very specific hedging in certain situations and these things tend to be useful for some product lines, but not necessarily for other product lines. If you were issuing a GIC or a funding agreement, and you were doing some hedging against that GIC or funding agreement, now you've got your hedge instruments being carried at market but your GIC at book. So what the fair value hedge treatment allows you to do is record your GIC at market. You get symmetry between your assets and liabilities, rather than having one side of the balance sheet going up and down and the other side of the balance sheet being constant or relatively stable.

Defining Derivatives
What's the definition of a derivative? It's when you have one or more "underlyings," and you have to have a "notional amount." It requires no initial net investment.

A key one is also net settlement, because for some insurance products, this is one reason why, for those of you who are familiar with that guaranteed minimum income benefit. At first you think that's a derivative, but it's not a derivative—there's no net settlement available in that annuity contract. The customer just can't settle the value of that guarantee and walk away. They would get an income stream, but they can't cash-settle it.

With an embedded derivative, you have to identify, isolate and pull out (separate) from the host contract. We now talk about an equity index annuity because it's the one that probably pops up the most. You issue an annuity contract whether your credit rating is tied to some external equity index, the S&P 500. The crediting is related to an equity index. The host contract, the annuity contract, is a fixed-income type of contract. An equity index and a fixed-income contract, they're not clearly and closely related. You have to pull out and identify and value the embedded derivative.

A hybrid contract, in this case the equity index annuity, can't be measured at fair value. In today's world, an annuity contract is not "fair valued" or "market valued." Another test is whether, if that separate embedded derivative were, let's say, sold over the counter or sold through one of the exchanges, would that be subject to FAS 133? In this case, yes, it would be.

FASB Derivative Implementation Group
The Derivative Implementation Group: if you go to www.fasb.org, you can find the derivative implementation group listed there and then all the issue papers, and then download them.

Section B contains a bunch of issues related to embedded derivatives. Organize Sections A through J or something like that. For equity-indexed annuities, there are four that are listed, that are relevant: B6, 15, 29 and 30. For variable annuities, B7, B8 and B25 are relevant.

A new one that has come up just in the last quarter or two is one on MODCO treaties, where, for example, you're passing on in the MODCO treaty gains or losses from the assets, either a segmented asset portfolio or from your general account. The issue is, in effect, are you passing on credit exposure to the reinsurer in a reinsurance contract? If you are, then the conclusion is, the credit exposure is not related to you, the issuer of the reinsurance contract. In some ways it's (I'll use the phrase loosely) a credit derivative. You have to identify and value that separately. That's a new one.

Option Budget Approach

For equity-indexed annuities (EIAs), the option budget approach, let's talk about an annual ratchet equity-index annuity. This is where the company can reset the participation rate. The company can, in effect, instead of declaring a new interest rate upon renewal, it can declare a new participation rate in the underlying index, for example. They could do this in this example annually. The way companies typically price this thing, they come up with a budget: How much can I afford to spend every year to buy these options? In this numerical example, I'm assuming that the company establishes the budget at 4.5 percent of the account value.

Now in issued paper B29, I think it is, they go into this in some detail about annual ratchet-equity index annuity. What they're trying to do in this embedded derivative calculation is look at the expected interest credits over the whole life of the product that are related to this indexing nature of your product. For example, even though you have the ability to reset your participation rate, one of the disjoints in this issue paper between the accounting and the economics is, you may only have economic exposure for one year and then the ability to reset your participation rate. You go out and buy an option for one year (let's say it's 4.5 percent of the account value). The embedded derivative at issue year was looking at the whole lifetime of the contract on an expected basis—how much do you expect to credit coming from the index? Maybe that's 25 percent of your account value.

If you think about it from a balance sheet perspective, in real life, if 4.5 percent is an option, then 95.5 percent is in fixed income, regular bonds. But on the GAAP books, your liability is 75/25; the 25 is your embedded derivative, and your host contract is 75. You've got kind of an accounting/economics disjoint between one part of your balance sheet, your $4.50 moving with the market. On the liability side, though, you've got $25, for example, moving with the market. In terms of volatility of earnings, that is one of the issues that EIA writers have had to kind of grapple with over the past couple of years.

Example of Annual Ratchet

Chart 3 shows an example. If somebody wants to see this in detail, I could e-mail the spreadsheet. The key is in the upper right. You have to come up with the initial—the word that's used in FAS 133 is bifurcation. You have to split the contract into two pieces: the host contract and the embedded derivative.

Again, you're looking at projected cash flows. Not accruals, but cash flows. When people surrender, how much of that cash was related to the index credits along the way, and how much cash flow was related to the other non-index-related cash flows? You do a typical actuarial calculation here to split the cash flows into those, the total account value paid on lapses, the total guarantee paid on lapses, which is the non-indexed cash flows, to come up with that excess column.

The present value of that: In this case, about 21 percent of the premium is the initial embedded derivative; about 79 percent is the host contract. You have to solve for the implied rate for that host contract. Now your host contract will accrue at that implied rate.

From a mechanical perspective, it's a very different and fairly onerous type of work to split out. And the embedded derivative you have to revalue whenever you do your financials, according to the then-current market expectations.

MR. ROD BUBKE: As Mike mentioned at the beginning, we're going to cover a broad range of topics; and in that vein I'll be talking about FAS 97, a little bit about FAS 115 and 120, and then some comments on purchase GAAP.

For FAS 97, I'll talk about scope; the reserves under FAS 97; an income statement presentation, and I'll have an example there; DAC; and unearned revenue reserve, and how that is created under FAS 97.

Scope
For the scope, FAS 97 basically applies to anything that's fund-driven. That would be UL; VUL; deferred annuities (including EIAs); variable annuities; annuities; immediate annuities; and limited pay contracts, probably if they're non-par. If they're par, they'd fall under FAS 120.

Reserves
For reserves, it is pretty simple. Under FAS 97, the reserve is the account value. For immediate annuities, the initial reserve is equal to the consideration or premium, so there's no gain or loss at issue. Under the recently adopted SOP, which is effective Jan. 1, 2004, that addresses reserves for some other items, such as guaranteed minimum death benefits and other guaranteed benefits with VAs and two-tiered annuities.

Income Statement
Mike went over income statement for FAS 60. FAS 97 is different, and he mentioned some of the differences.

Premium is not a revenue item under FAS 97. The product charges that you charge COIs, any premium loads, surrender charges—any of those charges are your revenue items under FAS 97. Surrenders and reserve changes are not benefits; those are replaced by interest credited. Death benefits are recorded net of reserves released on death. Of course, your commissions and expenses are reduced by the amount that you can defer; and as Mike mentioned, that can vary by interpretation. And of course, you have the item of DAC amortization.

Income Presentation
Chart 4 shows an example of a GAAP income statement, or actually a conversion from statutory to GAAP for UL product. You can see the premium getting zeroed out and replaced with product charges, and there can be differences in investment income. Those usually aren't a great material item, so in this instance I just left those as zero.

As for death benefits, you can see the reserve released there. Surrenders and reserve increase are zeroed out, and interest credited added, and then you have your amortization of DAC.

Then on the expense side, you have deferrals for commissions and expenses.

DAC Under FAS 97
For DAC under FAS 97, the deferrals are the same as FAS 60. DAC is amortized against gross profits rather than against premiums like FAS 60.

You're amortizing against the total profit stream, whatever your amortization period is. The profit stream is trued up, most likely quarterly for actual results, so if you have one quarter where you have big death benefits, your DAC amortization should be less in that quarter to reflect the actual experience during the quarter.

Periodically amortization should be unlocked and profits should be re-projected. Some people think, "If I don't have to change assumptions, then I may or may not need to unlock." Well, if you projected profits a year ago, unless you're really good and those projections are exactly right, even your in-force amount has changed, so I think it is necessary to unlock just to reflect the in-force that you now have at the current reporting date.

One thing when you unlock is that the impact of that unlocking all flows through that quarter's income statement. If you have a $1 million gain or loss due to unlocking, it all flows through that quarter.

Here's an example, and I use a simple five-year SPDA because it could fit on the screen (Chart 5). The interest rate that accrues to the DAC is the credited rate. And you have a couple of choices here: You can use the credited rate at issue and hold it constant, or you can use the credited rate that's actually credited to the policyholders. If you use the latter, which we do, for example, on the universal life product or fixed-annuity block. As rates have been going down lately and your credited rate has been going down, you've experienced a little bit of truing up on the DAC and writing up of the DAC just due to the interest rate drop.

You have the amortization stream. The interest on DAC is calculated using the interest rate that you're crediting. One thing that I think sometimes gets some accountants and auditors confused is what I show here as amortization and change in DAC. The amortization is actually the K-factor applied to the profit stream, but

what gets recorded in the income statement is the net change in DAC, which is the amortization less the interest on DAC. So the change in DAC is your net amortization.

Mike talked a little bit about recoverability on FAS 60. We have a K-factor here of 29 percent on the capitalized expense. If we go to the next example, the K-factor for the capitalized commissions is 45 percent, so we're well under 100 percent for K-factor, so we're OK (Chart 6).

The calculation for the amortization stream that was used in the amortization itself, with the annuity product, basically you just have three sources of gain. You have the interest gain, which is obviously the main one; surrender gain from surrender charges; and you have an expense gain or expense loss, I guess, since there aren't any policy loads; so you get your total amortization stream. If you had a UL product, you would have your COI charges and actual claim costs. You'd have a mortality gain; and most likely you'd have policy loads in here to somewhat offset policy expenses.

Unearned Revenue Reserve

URR or unearned revenue reserve. If you have a universal life product, for example, that has first-year charges that are in excess of renewal year charges, that generates unearned revenue. Just like on the expense side you incur expenses that aren't recurring, you're receiving revenue that's not recurring, so that must be deferred and then amortized. It is amortized in exactly the same manner as DAC is amortized as you saw. First year front-end loads and reverse COIs can generate unearned revenue.

FAS 115: Shadow DAC

A little bit about FAS 115, or shadow DAC.

On the GAAP balance sheet, all the assets are marked to market.
FAS 115 marks the DAC asset to market. Some companies will simply take their K-factor and apply that to their amount of unrealized gains and losses, and that's the 115 impact. Some companies take the approach, "Well, let's say we have unrealized gains. If we took all these unrealized gains we're going to invest at a lower rate, the spread would be lower, future profits are lower." So they actually go in and adjust future profit stream and recalculate the amortization. For something that doesn't affect income, that seems like a lot of work to me. So we take somewhat of a middle-of-the-road approach, and we adjust the amortization. So when we get down to the end of the amortization period, our ending DAC is zero; but we don't go through all the work of re-projecting profits.

FAS 120

FAS 120 applies to permanent participating business. There are some criteria that you have to meet, mainly, that you actively manage the dividends that you pay to policyholders.

Under FAS 120, reserves are traditional-type reserves, net level reserves, with the interest rate equal to the dividend rate or cash value rate. Under 120, you'll see an income statement that is much like statutory, or more like FAS 60. DAC is amortized, however, in the same way that FAS 97 is, but your gross profits are replaced with something called gross margins. I'm not sure why there's a distinction; maybe just because they're calculated differently. Obviously with a participating par product you don't have things like explicit interest credited and things like that.

Here's the FAS 120 amortization stream (Chart 7). Here you get to count premium as premium. Interest earned would be your investment income. You have death; maturities or surrenders; reserve increase; non-deferrable commissions, both the first year and renewal; maintenance expenses; premium tax and the dividends that you provide to policyholders. So you end up with a net estimated gross margin. It would be that profit stream that you would use to amortize the DAC.

Purchase GAAP

As for purchase GAAP, I think you have present value future profits, present value profits, value of insurance in-force, or value of business acquired, all meaning and relating to the same thing. When you go through a purchase situation, this PVP or VOBA or whatever you want to call it, it replaces DAC on the balance sheet. If you're acquiring a company that had $100 million of DAC on the books, that $100 million would go away and would be replaced by some combination of PVP and goodwill. It's the PVP asset that would get amortized over a period of years.

PVP is amortized in the same manner as DAC is, based on the underlying business. This means that if it's a FAS 60 type product, you're going to most likely amortize against premium; if it's a FAS 97 product, against gross profits; FAS 120, against gross margins. We do have one block of business that we purchased. Most of it is limited-pay, non-par business, so that block is getting amortized based off of the amount of insurance in-force.

In purchase GAAP, at the time of purchase, assets are market to market. From this point going forward, for this block of business and this block of assets, since the assets were marked to market at the time of purchase going forward, your investment income will vary between STAT and GAAP. If you think back to when I said that's usually immaterial, here's an instance where it's not immaterial.

When you're calculating the original PVP amount, it is important to use the GAAP investment income in gross profits based on the assets being market to market because that's the actual investment income you should realize going forward. When you go forward and calculate your actual gross profits or margins or whatever the case may be, you need to use the GAAP investment income based off of the assets being marked to market.

The discount rate used in the PVP amortization should be based on the rate used to value the business. For example, if you purchased a block and the discount rate the purchase price was based on was 12 percent, remembering that 12 percent is used discounting post-tax profit. So when you're amortizing, whether it's DAC or PVP, taxes aren't an issue; you're using pretax numbers here. If you convert that 12 percent to a pretax rate, it would be more like 18 percent. So it would be the 18 percent that you would be using in PVP amortization.

PVP Amortization

Here's an example of PVP amortization (Chart 8). We've always used 30 years in the instances I've been involved in, but 20 would fit on the screen.

In this case, you have your gross profit stream. I'm using, I guess, 15 percent here. That would be roughly relevant to, I guess, probably a 10 percent rate when you value the business. But here, you've got the present value of the profits at your discount rate, and you have the present value of your profits at the credited rate (which will change as your credited rate changes).

You have the total present value at the discount rate, total present value at the credited rate, and your amortization factor or K-factor is the ratio of those two.

Again, PVP is like DAC, in that you would reflect actual experience and true up every reporting period. And periodically you'd go in and unlock the future profit stream. Depending on the block of business, sometimes in purchase situations you can experience some shock lapses, so you need to pay attention to whether you need to unlock and how often you need to unlock a PVP balance.

FROM THE FLOOR: I have a question on FAS 120: How do you reflect the impact of a change in the dividend scale on a product like the example you had—say, an increase in the dividend scale?

MR. BUBKE: I think that would be a case where you would have to unlock and re-project. You're going to reflect actual dividends as they're paid. If the dividend scale changes, then you have to unlock and re-project.

FROM THE FLOOR: Under FAS 60 you mentioned the recoverability issue. Does that apply to FAS 120 also?

MR. O'CONNOR: FAS 120 would be much like FAS 97, based on the K-factor, rather than like FAS 60.

FROM THE FLOOR: I had two questions: One, do you know if many companies where they have the equity indexed annuity product, and you're marking your hedge at fair value—is anybody segregating their bonds to try to get them where you can mark those to fair value? Also, could you speak again about the issue about credit derivatives for the reinsurance transaction?

MR. O'CONNOR: For the MODCO? There are two questions. Second one is, do you have to worry about the MODCO issue that recently came up?

Then the first question was, for an equity index annuity product, if you have this in balance where $5 out of $100 is an actual hedge, and your embedded derivative is $25 out of $100, what are companies doing to try to dampen that potential income volatility?

On the EIA question, what some companies have done is move more and more of their fixed income to their trading account, and so those would be marked to market through the income statement. I'll use that example: $5 is the hedge for the one year, and $95 is just regular fixed-income bonds backing your product.

Under FAS 133, it's a 25/75 split. So they would take an extra $20 of bonds, put them into the trading accounts, and then those would be marked to market. So at least then you would have symmetry between the assets and liabilities. You'd have $25 of your assets marked to market and $25 of your total liability "marked to market."

The problem is, they're not marked to market on the same basis. You do have some volatility, but it will come through. For example, if you've gotten out $20 worth of bonds marked to market. As companies have experienced this probably over the last couple of years, corporate spreads are fairly fluid; and then with downgrades, your bonds could be having a fair amount of marked to market, but that would not necessarily be reflected in your embedded derivative fluctuation. But at least directionally you have better symmetry between assets and liabilities at least in terms of again $25 of assets being mark to market and $25 of liability being marked to market through your embedded derivative.

Under the MODCO, I guess you wanted more background to that? The issue is if you're passing on, let's say in your MODCO treaty, the interest credited is kind of a book interest rate plus or minus realized gains or losses.

Let's say you've got a segmented portfolio for your MODCO treaty. So if you have gains or losses in that portfolio that gets passed through your MODCO treaty as a plus or minus and so that is what would cause it to be an embedded derivative. So you've got to figure out some way of how do you value that. You've got to separate that from the host contract, which is your reinsurance contract and value that embedded derivative separately.

Again, I'll loosely call it a credit derivative. It's not a typical credit derivative. It's not a total return pass or swap on a pool of assets. If your contract states this, it would only be upon realization of those losses or gains.

FROM THE FLOOR: Does FAS 120 apply to acquisitions, which are put in place by way of a coinsurance transaction?

MR. BUBKE: I would think so. I think FAS 120 would apply to the underlying business. The answer would be yes.

FROM THE FLOOR: It's not just the purchase of a company, but it could be a coinsurance?

MR. BUBKE: Right. As a matter of fact, we do have some coinsurance with 120 business.

FROM THE FLOOR: I was curious how FAS 60 was treating reinsurance, or how you would treat reinsurance, in particular YRT reinsurance. In the old days with YRT, it was de minimus excess basis, and you didn't worry about it. Coinsurance, it's pretty straightforward what you do in terms of reducing things, but particularly with term riders. Many reinsurers are going to a YRT basis as a way of eliminating the XXX burden, I was curious how companies are reflecting the cost of YRT for their seated term business when they're seating, say, 80 or 90 percent of it.

MR. O'CONNOR: I thought for the XXX reserves, it was typically a combination of YRT and coinsurance. There maybe wouldn't have to be a combination. It doesn't have to be.

I think for GAAP, you reflect on your balance sheet the contract that you've written with the customer. You value that and then you value the economics of your reinsurance treaty separately and put that on your balance sheet. Then they hopefully net to what is the appropriate answer. I'm not sure what the question is in terms of the XXX problem.

FROM THE FLOOR: It's not specifically XXX. It's that I'm curious as to how the seating companies are treating this. Are they treating this as a reduction to benefit reserve? Are they treating it as an expense? Of course, there is an ongoing expense with YRT. We may call it a yearly renewable term, but clearly there is an expected ongoing cost there.

The reason I bring up XXX is that many term companies are reinsuring a significant portion of their business, and many reinsurers are now flipping from a coinsurance basis to a YRT basis in terms of assuming the business. So the term companies are now seating on a YRT business, but a significant portion of their business rather than seating on a coinsurance basis.

MR. O'CONNOR: Are you familiar with that situation? I'm more familiar with the coinsurance structure. That's a more typical structure.

MR. BUBKE: All of ours are on a coinsurance basis as well. Then let's take it as a hypothetical.

MR. O'CONNOR: I think you'd value the reinsurance. Maybe Ed's got something to add to it, too, but I think you'd value the YRT structure separate from your underlying contracts.

FROM THE FLOOR: I'll just respond to that particular question. If it's a material block of reinsurance, whether it's coinsurance or YRT, you're typically going to value that just as you do your base plan. But it's going to be under a different set of premium pattern potentially if it's YRT rates, or it's going to be your premium pattern, plus your reinsurance allowances. So the net effect, as Mike had said, hopefully will be OK. If it's an immaterial amount or a small amount, like excess reinsurance, some companies actually embed that reinsurance cost in their direct DAC calculation, but that's very uncommon anymore.

MR. O'CONNOR: So they do it on a net basis rather than two gross...

FROM THE FLOOR: But that's very uncommon. In the most typical approach, you look at your direct plan, you look at your reinsurance and do your FAS 60 on both.

One of the tricky aspects is your PADs. Your PADs on the reinsurance side are going to go reverse, so you get some weird things happening. But you're going to look at it on a net basis. As Mike says, your net liability has got to go up.

MR. O'CONNOR: That was a good question, thank you.

FROM THE FLOOR: If your recoverability of DAC came into question, and we were talking about an acquisition of ordinary life insurance on a coinsurance basis, what would be the appropriate interest rates to discount the profits on this business to determine the recoverability of the DAC?

MR. O'CONNOR: Did you say 120 business?

FROM THE FLOOR: I wanted to say just ordinary business, be it ETI or non-par life permanent business.

MR. O'CONNOR: I think the interest rate that you would look at to determine recoverability is your current portfolio. For example, if your GAAP interest assumptions—let's say your GAAP interest rate is 7.5 percent—is that what you're trying to get at?

FROM THE FLOOR: That's why I got confused over the FAS 120 presentation, which suggested that the interest rate might be the interest rate that was used in valuing the acquisition, rather than the interest rate of the portfolio. This is what I have been using as the interest rate of the portfolio.

MR. BUBKE: For FAS 120, which applies to participating permanent business—it's not going to apply to term or ETI or any of those—you use the portfolio earned rate for amortization, whether it's DAC or PVP or either one.

MR. O'CONNOR: For regular recoverability, you would look at your current portfolio. Again, if your GAAP discount rate in a block of business is 7.5 percent, and your current portfolio is down to 6.5 percent, you've got a hole there, so to speak. So you'd have to make sure you've got enough margins coming through from other sources—your mortality expenses, persistency or whatever—to make up for that deficiency. You would look at the combination of all those, not just one particular source of gain or loss coming through.

FROM THE FLOOR: With respect to variable products and the calculation of estimated and gross profits, can you tell us if there's any kind of guidance? Or if there's no guidance, what is common practice in terms of calculating estimated gross profits for variable business where you have to assume some portion is fixed and some is variable? You don't really have a credited interest rate on the variable side and perhaps some other issues.

MR. BUBKE: That was certainly a very hot topic about a year or so ago. I would say common practice is if you have a fixed account along with separate accounts, that you're going to project those two; and then your actual interest rate that is used would be some blend of those. So if you assume maybe a 10 percent separate account growth and 5 percent credit on the fixed, your interest rate would be some mix or some weighted average of those two rates.

The interesting thing is with market fluctuations that we've seen, I think most variable writers would use, in terms of your separate account return, some form of what is commonly referred to as reversion to the mean, where maybe market performance over time has been below your long-term assumption. So what we do is calculate over the next five years, what would that growth rate have to be to get us back to our long-term assumption? That's the growth rate that we assume for the next five years. After that it is whatever our long-term assumption is.

What some companies ran into, including ourselves, a year or so ago is that the growth rate that we needed the next five years was quite unrealistic, so we basically had a cap. We won't assume a growth rate more than 15 percent over the next five years, and we had to go up to 17 percent or 18 percent. So what we had to do was revise our long-term growth rate from 10 percent down to 8 percent, and then that caused, as you can imagine, some impact on the DAC balance. We wrote some variable DAC off, as did many other companies.

MR. O'CONNOR: I think a lot of companies were kind of caught up in that. Colin Devine, who is an analyst, I believe with Salomon, has written up some interesting articles. He's an analyst who has learned enough about what companies were doing and dynamics under FAS 97 to ask the right questions: "Now tell me what your

future growth rate assumptions are for your variable annuity business." Some companies were getting up into maybe significantly above 15 percent, and then I think companies have started pulling away from that.

Last fall we did a survey among companies and that was a prevailing practice throughout the variable annuity industry. I think some companies have changed. They've lowered what type of cap they might allow that future assumption to go to. But analysts, that's the type of disclosure they want to have, that type of knowledge. As they compare Company A to Company B to Company C, they can try to determine the level of conservatism versus aggressiveness in their DAC assumptions. A lot of write-offs did occur third and fourth quarter of last year and first quarter of this year. That has been the type of practice fairly constant or prevalent in the industry.

MR. BUBKE: One other thing that isn't necessarily related to variable business by itself: At the same time we're using for our variable business an amortization period of 30 years, which I know it was longer than industry norm, and maybe longer than anybody else. But because of the nature of our business and our clients, we felt like we could justify that assumption.

Through the whole controversy, if you will, of variable annuities, we got a lot of pressure from analysts about how we could justify the 30 years. We ended up changing that assumption, but at the same time, I think you need to look at, if you've got old business on the books, look at your amortization periods and see how much business is left at the end of the amortization period. Because at the same time we have old, participating, permanent business and those people just stick around forever. We were using 30 years for that and still had 15 percent to 20 percent of the business left at the end of 30 years.

At the same time we extended that amortization period out to 40, so I think it's probably longer than the industry norm. But obviously if we have that much business left you can justify it.

MR. O'CONNOR: Any questions related to the reserving for variable annuity GMDB? I think it goes into effect first quarter of next year; so for your GMDBs, GMIBs, all the other investment guarantees on your variable annuities, companies will have to start accruing, going back to time of issue of those contracts to come up with the current reserve for those benefits. Areas like that that you may have a question or annuitization benefits for two-tier products?

MR. BUBKE: I might just say that if you were just looking at a draft of that SOP, you might want to get a copy of the final version because there are differences.

MR. O'CONNOR: This is a nice example, frankly, where FASB reversed some of the decisions. For example, in the SOP that came out in July of last year, for the nontraditional long duration contracts, it said that for annuitization benefits on fixed

business or these GMIBs on a variable annuity, the draft SOP said you could not set up a reserve for it. You would be precluded from setting up a reserve. FASB has reversed that and said that if it's a benefit, it's a guarantee, and you need to accrue for it. Again, whether it's a fixed annuity, two-tier with annuitization benefits or a GMIB on a variable annuity.

I think they might have reversed a couple of other things. I think they took out the materiality test for the GMDB, for example, under the SOP draft from a year ago. The death benefit guarantees had to be material or significant. I can't think of what they used, but I think they removed that kind of quantitative test from the final version. They were basically saying if you've got guarantees you need to set up a reserve for them on your balance sheet, whether it's a GMDB, GMIB or any other type of living benefit.

Another issue is internal replacements. In FAS 97, they only talk about UL-related internal replacements. Going back to what was happening in the late '80s when FAS 97 came out, the old whole-life contracts were being replaced by UL contracts. FAS 97 addressed that issue.

The question since then has been, "What about all the other internal replacements?" In the mid-'90s, some companies had conversion programs from fixed annuities, at least a couple of companies I am aware of, to variable annuities. Could you carry over the DAC? I think in the accounting profession, the dust is still settling on that issue in terms of what the rules might be, in terms of having to write off the DAC or being able to transfer over the unamortized DAC upon internal replacement. Stay tuned for further developments on that one, I guess.

Chart 1

FAS 60 - Balance Sheet

Illustrative GAAP Calculations without Provisions for Adverse Deviation										
		Premium/Policy:			3,400					
		Face Amount:			250,000					
		Issue Costs per policy			500					
		Maintenance costs per policy			45					
		Discount Rate:			7.00%					
	Comm		BOY Costs		Maint	Death	EOY	EOY	BOY*	BOY*
t	Rate	Premiums	Comm's	Issue	Costs	Benefits	Reserves	DAC	Reserves	DAC
0							-	0.00		
1	70%	3,400.00	2380.00	400.00	45.00	1,750.00	852.25	2,185.68	2,474.07	2,042.70
2	10%	3,308.20	330.82	0.00	43.79	1,946.00	1,497.90	1,925.04	3,259.52	1,799.11
3	10%	3,182.49	318.25	0.00	42.12	2,106.06	1,932.48	1,661.88	3,813.70	1,553.16
4	10%	3,026.55	302.65	0.00	40.06	2,225.40	2,158.77	1,399.79	4,134.80	1,308.21
5	10%	2,844.95	284.50	0.00	37.65	2,301.07	2,186.26	1,142.06	4,228.95	1,067.34
6	10%	2,642.96	264.30	0.00	34.98	2,332.03	2,030.11	891.54	4,109.46	833.21
7	10%	2,426.24	242.62	0.00	32.11	2,319.20	1,709.99	650.58	3,795.61	608.02
8	10%	2,200.60	220.06	0.00	29.13	2,265.32	1,248.64	420.98	3,311.29	393.43
9	10%	1,971.74	197.17	0.00	26.10	2,174.71	670.44	203.91	2,683.40	190.57
10	10%	1,744.99	174.50	0.00	23.10	2,052.93	-	-	1,940.21	-
	% of Premium:		19.77%	1.92%	1.24%	71.53%				
Total Net Premiums =			94.45%							
= Pre-Tax Profits			5.55%				* BOY = after the premium, commissions and issue costs are paid			

Chart 2

FAS 60 - Income Statement

Illustrative GAAP Income Statement without Provisions for Adverse Deviation									
		Investment		Cash	Amortization		Change in	Pre-Tax	% of
t	Premiums	Income	Commission	Expenses	of DAC	Benefits	Reserves	Income	Premium
1	3,400.00	30.20	2,380.00	445.00	(2,185.68)	1,750.00	852.25	188.63	5.55%
2	3,308.20	102.23	330.82	43.79	260.64	1,946.00	645.65	183.53	5.55%
3	3,182.49	158.24	318.25	42.12	263.17	2,106.06	434.57	176.56	5.55%
4	3,026.55	197.86	302.65	40.06	262.09	2,225.40	226.30	167.91	5.55%
5	2,844.95	221.31	284.50	37.65	257.73	2,301.07	27.49	157.83	5.55%
6	2,642.96	229.34	264.30	34.98	250.52	2,332.03	(156.15)	146.63	5.55%
7	2,426.24	223.13	242.62	32.11	240.95	2,319.20	(320.12)	134.60	5.55%
8	2,200.60	204.25	220.06	29.13	229.61	2,265.32	(461.35)	122.09	5.55%
9	1,971.74	174.50	197.17	26.10	217.07	2,174.71	(578.20)	109.39	5.55%
10	1,744.99	135.81	174.50	23.10	203.91	2,052.93	(670.44)	96.81	5.55%

Chart 3

FAS 133 - Numeric Example

ium:	10,000						Initial Embedded Derivative		2,058
V Rate:	3%						Initial Host		7,942
-Free Rate	5%								
on Budget:	4.5%						Host Implied Rate		4.65%
							Total		
Risk-Free	AV per		Guaranteed			Total AV Paid	Guarantee Paid		Disc Value
Rate	Policy	GMSV	Portion	Lapses	Persistency	on Lapses	on Lapses	Excess	of Excess
	10,000	9,000			1.000				
5%	10,473	9,270	10,000	2%	0.980	209	200	9	9
5%	10,967	9,548	10,000	3%	0.951	322	294	28	26
5%	11,486	9,835	10,000	4%	0.913	437	380	56	49
5%	12,028	10,130	10,130	5%	0.867	549	462	87	71
5%	12,597	10,433	10,433	6%	0.815	655	543	113	88
5%	13,192	10,746	10,746	7%	0.758	753	613	139	104
5%	13,815	11,069	11,069	8%	0.697	838	671	167	118
5%	14,468	11,401	11,401	9%	0.635	908	715	192	130
5%	15,151	11,743	11,743	10%	0.571	961	745	216	139
5%	15,867	12,095	12,095	100%	0.000	9061	6907	2154	1,322

Chart 4

FAS 97 - Example of Income Statement Presentation

Accounting for UL Product

	Statutory	GAAP Adjustments	GAAP
Premium	6,750,000	(6,750,000)	-
Product Charges		6,500,000	6,500,000
Investment Income	7,125,000	-	7,125,000
Total Income	**13,875,000**	**(250,000)**	**13,625,000**
Death Benefits	5,800,000	(1,600,000)	4,200,000
Interest Credited	-	5,400,000	5,400,000
Surrenders	3,000,000	(3,000,000)	-
Reserve Increase	1,600,000	(1,600,000)	-
Amortization of DAC	-	735,000	735,000
Total Benefits	**10,400,000**	**(65,000)**	**10,335,000**
Commissions	700,000	(340,000)	360,000
Expenses	550,000	(150,000)	400,000
Total Expenses	**1,250,000**	**(490,000)**	**760,000**
Book Profit B4 FIT	**2,225,000**	**305,000**	**2,530,000**

Chart 5

FAS 97

DAC Schedule for Capitalized Acquisition Expense

Amort Percent: 29.01%

Yr	Mth	Interest Rate	Amort Stream	Initial DAC	Interest on DAC	CaptIzd Acq Exp	Interest on Exp	Amort	Ending DAC	Change in DAC
1	3	4.50%	19,647	-	-	97,000	1,052	5,701	92,352	92,352
1	6	4.50%	19,640	92,352	1,001	-	-	5,698	87,654	(4,697)
1	9	4.50%	19,607	87,654	949	-	-	5,689	82,914	(4,740)
1	12	4.50%	19,575	82,914	897	-	-	5,680	78,131	(4,783)
2	3	4.50%	19,094	78,131	844	-	-	5,540	73,435	(4,696)
2	6	4.50%	19,090	73,435	792	-	-	5,539	68,689	(4,747)
2	9	4.50%	19,085	68,689	740	-	-	5,537	63,891	(4,798)
2	12	4.50%	19,080	63,891	687	-	-	5,536	59,041	(4,849)
3	3	4.50%	18,615	59,041	633	-	-	5,401	54,274	(4,768)
3	6	4.50%	18,608	54,274	581	-	-	5,399	49,455	(4,818)
3	9	4.50%	18,601	49,455	527	-	-	5,397	44,586	(4,870)
3	12	4.50%	18,595	44,586	473	-	-	5,395	39,664	(4,922)
4	3	4.50%	18,135	39,664	420	-	-	5,262	34,822	(4,842)
4	6	4.50%	18,126	34,822	366	-	-	5,259	29,929	(4,893)
4	9	4.50%	18,117	29,929	312	-	-	5,256	24,984	(4,945)
4	12	4.50%	18,108	24,984	257	-	-	5,254	19,988	(4,997)
5	3	4.50%	17,653	19,988	202	-	-	5,122	15,068	(4,920)
5	6	4.50%	17,642	15,068	148	-	-	5,119	10,097	(4,971)
5	9	4.50%	17,630	10,097	93	-	-	5,115	5,075	(5,022)
5	12	4.50%	17,619	5,075	37	-	-	5,112	-	(5,075)

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Chart 6

FAS 97

DAC Schedule for Capitalized First Year Commission

Amort Percent: 44.87%

Yr	Mth	Interest Rate	Amort Stream	Initial DAC	Interest on DAC	CaptIzd FY Comm	Interest on Comm	Amort	Ending DAC	Change in DAC
1	3	4.50%	19,647	-	-	150,000	1,627	8,815	142,812	142,812
1	6	4.50%	19,640	142,812	1,548	-	-	8,812	135,548	(7,264)
1	9	4.50%	19,607	135,548	1,467	-	-	8,797	128,218	(7,330)
1	12	4.50%	19,575	128,218	1,386	-	-	8,783	120,821	(7,396)
2	3	4.50%	19,094	120,821	1,305	-	-	8,567	113,560	(7,262)
2	6	4.50%	19,090	113,560	1,225	-	-	8,565	106,220	(7,340)
2	9	4.50%	19,085	106,220	1,144	-	-	8,563	98,800	(7,419)
2	12	4.50%	19,080	98,800	1,062	-	-	8,561	91,301	(7,499)
3	3	4.50%	18,615	91,301	980	-	-	8,352	83,929	(7,373)
3	6	4.50%	18,608	83,929	898	-	-	8,349	76,478	(7,451)
3	9	4.50%	18,601	76,478	816	-	-	8,346	68,947	(7,530)
3	12	4.50%	18,595	68,947	732	-	-	8,343	61,336	(7,611)
4	3	4.50%	18,135	61,336	649	-	-	8,137	53,848	(7,488)
4	6	4.50%	18,126	53,848	566	-	-	8,133	46,282	(7,567)
4	9	4.50%	18,117	46,282	482	-	-	8,129	38,635	(7,646)
4	12	4.50%	18,108	38,635	398	-	-	8,124	30,909	(7,727)
5	3	4.50%	17,653	30,909	313	-	-	7,920	23,301	(7,608)
5	6	4.50%	17,642	23,301	229	-	-	7,915	15,614	(7,687)
5	9	4.50%	17,630	15,614	144	-	-	7,910	7,848	(7,767)
5	12	4.50%	17,619	7,848	58	-	-	7,905	0	(7,848)

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Chart 7

FAS 97

				SFAS97 GAAP Amortization Stream										
			Invest. Gain				Mortality Gain		Surrender		Expense Gain			Total
		Interest	Interest	Net	COI	Claims	Reins	Net	Net	Policy	Policy	Net		Amort
Yr	Mth	Earned	Credited	Gain	Charges	Costs	Costs	Gain	Gain	Loads	Expenses	Gain		Stream
1	3	50,852	33,070	**17,782**	-	-	-	-	**2,739**	-	874	**(874)**		19,647
1	6	50,861	33,060	17,802	-	-	-	-	2,709	-	870	(870)		19,640
1	9	50,845	33,049	17,796	-	-	-	-	2,678	-	867	(867)		19,607
1	12	50,830	33,039	17,791	-	-	-	-	2,648	-	864	(864)		19,575
2	3	50,374	32,743	17,631	-	-	-	-	2,323	-	860	(860)		19,094
2	6	50,353	32,729	17,624	-	-	-	-	2,323	-	857	(857)		19,090
2	9	50,332	32,716	17,617	-	-	-	-	2,322	-	853	(853)		19,085
2	12	50,311	32,702	17,609	-	-	-	-	2,321	-	850	(850)		19,080
3	3	49,855	32,405	17,449	-	-	-	-	2,012	-	846	(846)		18,615
3	6	49,828	32,388	17,440	-	-	-	-	2,011	-	843	(843)		18,608
3	9	49,801	32,370	17,431	-	-	-	-	2,010	-	839	(839)		18,601
3	12	49,774	32,353	17,421	-	-	-	-	2,009	-	836	(836)		18,595
4	3	49,317	32,056	17,261	-	-	-	-	1,706	-	832	(832)		18,135
4	6	49,284	32,034	17,250	-	-	-	-	1,705	-	829	(829)		18,126
4	9	49,251	32,013	17,238	-	-	-	-	1,704	-	825	(825)		18,117
4	12	49,218	31,991	17,227	-	-	-	-	1,703	-	822	(822)		18,108
5	3	48,759	31,693	17,066	-	-	-	-	1,405	-	818	(818)		17,653
5	6	48,719	31,667	17,052	-	-	-	-	1,404	-	815	(815)		17,642
5	9	48,679	31,641	17,038	-	-	-	-	1,403	-	811	(811)		17,630
5	12	48,640	31,615	17,024	-	-	-	-	1,402	-	807	(807)		17,619

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Chart 8

Example of PVP Amortization

Year	Profits	PV @ 15%	PV @ 5%	Balance	Amount
				28,652,876	
1	5,681,000	4,940,000	5,410,476	26,806,684	1,846,192
2	5,417,000	4,096,030	4,913,379	25,020,553	1,786,131
3	5,523,000	3,631,462	4,770,975	23,083,936	1,936,617
4	5,344,000	3,055,449	4,396,522	21,153,799	1,930,136
5	5,163,000	2,566,923	4,045,346	19,231,622	1,922,178
6	4,697,000	2,030,643	3,504,974	17,482,291	1,749,331
7	4,235,000	1,592,093	3,009,735	15,912,141	1,570,150
8	4,137,000	1,352,393	2,800,084	14,320,045	1,592,096
9	4,042,000	1,148,989	2,605,509	12,703,174	1,616,871
10	3,783,000	935,100	2,322,434	11,154,943	1,548,231
11	3,488,000	749,722	2,039,361	9,699,563	1,455,380
12	3,224,000	602,589	1,795,244	8,323,783	1,375,780
13	2,932,000	476,532	1,554,902	7,047,744	1,276,039
14	2,703,000	382,011	1,365,199	5,840,073	1,207,671
15	2,462,000	302,566	1,184,264	4,711,113	1,128,960
16	2,248,000	240,232	1,029,835	3,649,218	1,061,896
17	2,044,000	189,941	891,790	2,651,967	997,250
18	1,855,000	149,893	770,791	1,713,937	938,030
19	1,680,000	118,046	664,833	830,008	883,929
20	1,510,000	92,261	569,103	0	830,008
Total Present Values		28,652,876	49,644,757		
Amortization Factor		57.72%			

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