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MARKET-VALUE ACCOUNTING (MVA)

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Panelists: ARNOLD A. DICKE
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Recorder: KRISS CLONINGER III

- Current GAAP accounting – actual practice (assets, liabilities, earnings, equity)
- *Statement of Financial Accounting Standards (SFAS) 107* disclosure
- Separate accounts (variable and MVA products)
- Section comments and direction
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 - General accounts
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 - European and Canadian practice
- Current directions
 - Exposure draft
 - Actuarial value of assets (AVR), risk-based capital (RBC), interest maintenance reserve (IMR) effects
 - Latest developments

MR. KRISS CLONINGER III: Our three speakers have significant experience in working with the issues associated with market-value accounting.

Doug Johnson is director of Ernst & Young's southeastern insurance practice and presently serves life, health, and property/casualty insurance companies. Doug is a member of the American Institute of Certified Public Accountants (AICPA) and holds an MBA from the Harvard School of Business. Doug will set the stage for us by discussing where market-value accounting came from and give a historical perspective on the issue.

Ed Robbins is a principal in the Chicago office of KPMG Peat Marwick. Ed is a member of the Academy's Committee on Life Insurance Financial Reporting (COLIFR) and has been a frequent speaker on financial reporting and federal income tax topics. Ed will talk about where we are now with market-value accounting.

Arnold Dicke is executive vice president and product actuary for USLife Corporation. He's responsible for the life insurance and annuity product development in all USLife companies. Arnold has also served on the Academy's COLIFR and is presently chairman of the working group on liabilities of the ACLI task force on market-value

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accounting. Arnold will talk about where we may be going in the future with market-value accounting.

MR. DOUGLAS W. JOHNSON: I'll first cover some background and peripheral material relating to *SFAS 115*. After that, Ed will cover the mechanics. What I want to share with you is some of the history leading up to the adoption of *SFAS 115* and some of the FASB's thought process. We'll also look at some other experiences with this issue and conclude with a few thoughts on what's down the road.

As far back as 1974, the AICPA considered requiring banks to adopt market-value accounting for certain portions of their invested asset portfolios. At that time, banking portfolios, as well as insurance portfolios, were under water. The AICPA believed that the banking regulators would support the proposals, but instead, the chairman of the Federal Reserve bank did not, warning that the initiative presented a severe risk to the U.S. economy and its financial markets. The proposals were effectively tabled.

In 1987, the AICPA again resurrected the market-value accounting issue with its exposure draft on disclosures about financial instruments. The same outcry occurred as was heard in 1974: warnings about economic damage and a likely defection from long-term instruments. The drive was once again stalled.

In March 1990, the FASB addressed the market-value issue in *SFAS 105*, in which it covered disclosure matters in some narrowly defined areas. But the real excitement occurred in September 1990, when the SEC called for market-value accounting for banks. The SEC's near demand for market-value accounting not only raised the stakes for financial institutions but put extraordinary pressure on the professional organizations and the FASB to respond.

In November 1990, the AICPA issued Statement of Position (SOP) 90-11, which called for disclosure of information by financial institutions about certain debt securities held as assets. The FASB also issued an exposure draft like SOP 90-11 that focused on disclosure but with a significantly broader scope. This proposal was subsequently adopted as *SFAS 107*, disclosures about fair-value financial instruments. Finally, in June 1991, the FASB agreed to place a market-value accounting project on its already tight agenda. As we all know now, in May 1993 the FASB issued *SFAS 115*, Accounting for Certain Investments in Debt and Equity Securities.

We can all speculate on what the driving forces were behind each of the events that occurred. There was a savings and loan crisis in which assets of many savings and loans were under water, but the historical financial-basis accounting statements did not reflect such. Various governmental groups, including the SEC, put significant pressure on the accounting profession's rule-making bodies to correct what were perceived as problems with historical-basis accounting. There were widespread perceptions of accounting abuses with historical financial reporting practices, primarily relating to gains trading. Also during this time, many new and complex financial instruments had been developed that defied anyone's ability to clearly record them on a historical cost basis. And, of course, as I mentioned earlier, during this period of time, many portfolios were under water in one capacity or another.

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These forces led to the adoption of the accounting pronouncements, including *SFAS 115*. Because I know most of you are not accountants, I prepared Table 1 to give you a brief overview of a hierarchy of accounting guidance that we work under. Current accounting literature relating to market-value accounting primarily falls on Level A, which is the most authoritative, with SOP 90-11 falling on Level B. So that's where we are today.

TABLE 1
Authoritative Guidance

Level A: (Most Authoritative)	FASB Standard & Interpretations	APB Opinions	AICPA Acct. Research Bulletins
Level B	FASB Technical Bulletins	AICPA Account & Auditing Guides	AICPA Statements of Position
Level C	Consensus Opinions of FASB EITF	AICPA Practice Bulletins	
Level D	AICPA Accounting Interpretation	Questions and answers by FASB staff	Practices widely recognized and prevalant

Now let's talk about some of the deliberations that the FASB went through to arrive at the decision to adopt *SFAS 115*. There were five basic issues that the FASB set out to resolve:

- There is inconsistent treatment of marketable securities among different industries.
- The basic lower-of-cost-or-market method is not evenhanded, because a loss in value is recognized but an appreciation in value is not.
- Fair-value information provides users with a better ability to assess the effect of current economic events for an enterprise.
- Gains-trading, selling securities with unrealized gains in order to recognize those gains in income while holding onto securities with unrealized losses in order to avoid taking the losses in income, is an inappropriate practice and should be curtailed.
- Accounting based on intent, that is, determining how we should account for marketable securities based on whether management intended to hold or dispose of those securities, basically leads to impairment of comparability in financial statements because of the subjectivity of management's intent.

Interestingly, as the FASB clearly admits, *SFAS 115* resolves the first two of these issues, partially addresses the third, but leaves the fourth and fifth unresolved. Notwithstanding, the Board considers *SFAS 115* an improvement in reporting.

During the deliberation process, the FASB received some 600 responses to the exposure draft. I have summarized some of the information from an early analysis of those responses, which includes about half of the 600. These are responses that have been received through December 1992. Half were from banks; 20% were from insurance companies. And not surprising to anybody here, 75% objected to the expansion of fair-value accounting, and 100% of the insurance companies and 90% of the banks objected. You can probably conclude from that the banks and insurance companies were not any of the groups FASB was listening to in this process.

The primary reason for objection to the proposal was the volatility with surplus, making it difficult for companies to efficiently raise new capital. Some other responses indicated that the disclosure required by *SFAS 107* provided sufficient information to resolve the concerns the FASB set out to address. A number of responses indicated that there would clearly be a reduction in the value of financial statements after adoption of such a standard.

Respondents further indicated that they believe the anticipated economic consequences would be a shorter average maturity of the investment portfolio, something that was brought up back in 1974, and that many companies would stop purchasing long-term, fixed-rate debt securities; also, movement to nonsecure-type investments might occur. I thought it was interesting that some insurers responded that they did not understand why they were being affected by a standard that was primarily designed to curb abuses by banks and thrifts. I'm sure many of you may feel that same way.

In summarizing the FASB's views on *SFAS 115*, here's what they stated. It was a limited-scope project and the valuation of liabilities was only an option. During the deliberation phase no one put forward a workable liability approach; therefore, the option was taken to go without it. It is clear that the FASB believes marking liabilities to market would make a better solution. But, as it stated here, that was only an option in a limited-scope project. It believes the statement does not broadly expand the use of fair-value reporting in securities, and the current practice recognizes the net decline in fair value of securities held for sale through the lower-of-cost-or-market method without considering the changes in the value of any liabilities. I can relate that comment to nonfinancial enterprises, but I don't completely follow it for banks and insurance companies.

The FASB also understands that fair-value accounting should not be used on securities being held to maturity. As Ed will cover later, one of the key issues in *SFAS 115* is determining just exactly what securities are classified as being held to maturity. The FASB recognizes that earnings in capital are likely to be more volatile with the adoption of *SFAS 115*. However, it believes that this is only an interim solution. In other words, a method of valuing liabilities will be agreed upon and adopted before too long. Furthermore, the adoption of *SFAS 115* improves financial reporting and provides benefits that currently outweigh the negative aspects of volatility.

Now let's turn to comments on practices in a couple of other countries. Current Canadian accounting literature discusses market-value accounting for debt securities and concludes that for insurance enterprises, it does not make sense to record them at market value without also recording liabilities at market value. In Canada, equity

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securities are recorded on the balance sheet on a moving average market method, which is basically an average of the previous five years' market values. On the income side, realized gains and losses are also based on this moving average, and any other like gain or loss is shown outside the equity section of the balance sheet. Fixed-term securities are held at amortized cost; gains and losses are deferred and amortized into income for the remaining term of the securities sold. This system has allowed Canadian insurers to avoid volatile swings in either equity or earnings, based on the vagaries of the stock market or movement of interest rates. It also, interestingly, has eliminated the issue of gains-trading.

Canada does have a number of initiatives relating to the identification and value of assets and liabilities, the most significant of which is a September 1991 exposure draft on financial instruments. It does not specifically address insurance companies, but the proposal calls for defining financial assets as investing and financing, operating or hedging. Investing and financing assets would be recorded basically as amortized cost; operating assets at fair value and hedging assets would be correlated with the item being hedged.

Just a few quick comments on another country, Denmark. Denmark comes up only because it has adopted a mark-to-market accounting system for banks and thrifts and has a number of years of experience with that system. There's a great degree of difference between the bank and thrift industry in a country the size of Denmark and the insurance industry in the United States, but I thought some of the conclusions from looking at its system would be of interest. These conclusions were drawn from a study done last fall by some professors at the University of Michigan and Harvard University. First, they found that there was no evidence of management manipulation. In other words, there was no evidence that management tried to influence the outcome of the financial statements. They further concluded that more realistic financial statement numbers were prepared through the use of a market-value system, based on their observation that there was less loss in solvency dispositions when a bank was taken over by the authorities. They, therefore, concluded that the numbers must be more realistic, because in a wind-down situation the value received for the disposed assets was about that at which they were recorded on the books using the market-value system. They pointed out, however, that the solvency disposition loss was also a function of the regulatory intervention policy by the government and that a rapid and decisive intervention policy was likely to result in less loss. They also concluded, as most of us believe, that mark-to-market accounting resulted in substantial volatility in reported profits in bank capital ratios.

Let's turn now to the statutory response to the whole issue of asset values. Actually, regulators discovered asset risk a long time ago. In the early 1900s, statutory accounting required assets to be recorded at market value and liabilities at book value. At that time, we had a stable surplus because interest rates and economic conditions were stable. As we moved into the period after World War I, surplus became unstable because of the rapid and unpredictable changes in the financial markets. They were prompted to move away from market-value accounting to what we have today. Book value, of course, produces relatively stable surplus, leading us to the question of tomorrow where we may have market-value assets and liabilities. Actually, the statutory authorities took a relatively reasonable and rational approach to the asset-valuation issue. They developed regulations that fit within the existing

framework. They made sure that it was only incremental and not revolutionary and they listened to vigorous industry input.

We see that the statutory approach to this issue is through risk-based capital (RBC), the creation of the interest maintenance reserve (IMR) and the asset valuation reserve (AVR), the requirement to have an appointed actuary to test for asset adequacy, the disclosures required in management's discussion and analysis, and possibly some new regulations requiring opinions on surplus adequacy in the future.

The statutory authorities are further looking at the control of assets through the NAIC's draft model investment law. That law would have implications for *SFAS 115* as well, in that it may not be as practical to move from certain types of securities into others, particularly certain derivatives, because of the proposed limitations being placed on portfolios.

Last fall and through the winter of 1993, Ernst and Young conducted a survey of financial institutions, banks and savings and loans, based on the FASB's exposure draft on market-value accounting. We received replies from approximately 216 chief financial officers. I will share with you some of the responses from those institutions as to what they said they would do in response to the adoption of the pronouncement.

First, the companies surveyed believed that the FASB proposal would cause them to reclassify a number of their securities into the held-for-sale category. The larger the institution, the greater percentage of their portfolios they believed would fall into the held-for-sale category. In contrast, they thought the FASB proposal was more restrictive than the existing SEC position and would result in a higher proportion of their portfolios being classified in a held-for-sale group. In other words, the existing SEC position on this issue is not as restrictive as *SFAS 115*.

They also believed that they would reduce holdings in fixed-rate-mortgage bank securities and increase holdings in adjustable rate mortgages, U.S. Treasury notes and other U.S. government agency notes. Basically, they would be attempting to shorten the maturity of their portfolios. They also felt they would probably increase hedging activity to reduce volatility. And, of course, the larger the institution, the more propensity there is to do that.

Chart 1 depicts the primary reasons why securities were sold out of the institutions' portfolios. The only interesting point to draw from this is that only three of the reasons listed on would not taint the portfolio from being prohibited from being in the held-to-maturity category. The three main reasons for selling out of the portfolio would, in fact, cause that portfolio to be included in a held-for-sale category.

FROM THE FLOOR: Can you tell us what the three reasons are?

MR. JOHNSON: The first one really has to do with a change in the term structure. In other words, the first one is just where they're really matching assets and liabilities. The second one is general liquidity need. And the third one is increase in loan demand. In other words, they just had more loan demands, and they needed to sell off assets to accomplish that, to move assets from one category to another. Those

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are really the prominent ones the banks had shown, and all of those are specifically prohibited in *SFAS 115* from allowing you to put that security in the held-to-maturity category. And, again, the idea is that there are very few reasons why you'll be able to keep securities out of the available-for-sale category.

CHART 1
Reasons Institutions Sold Debt Securities
Held in the "Investment" Portfolio Prior to Maturity

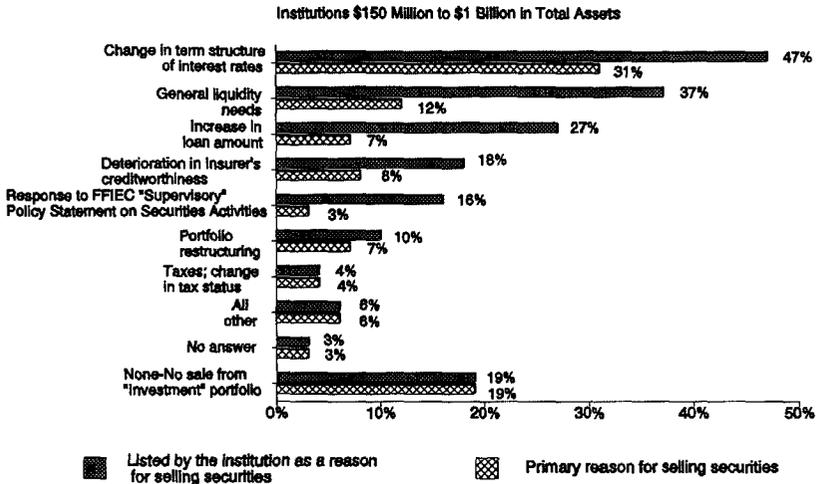


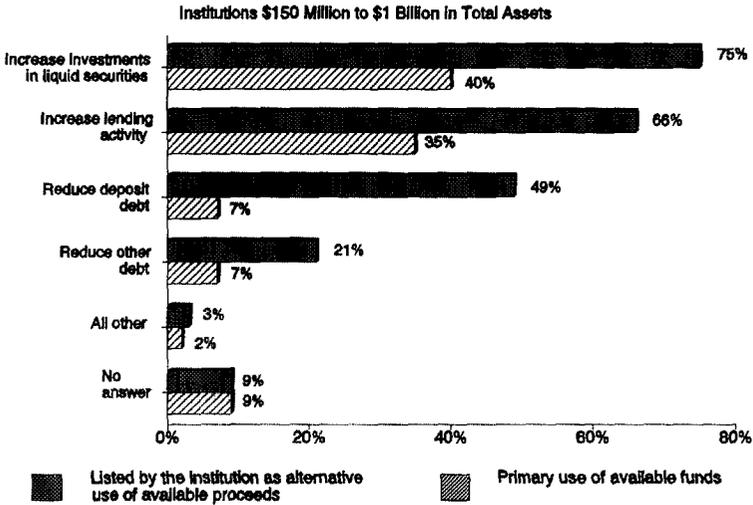
Chart 2 depicts the institutions' beliefs as to what use they would make of available proceeds if portfolio restructuring resulted in excess funds. The first two are simply shifting assets into different categories. But the third, interestingly, is a basic reduction in the size of the entity. I think that's an option that many companies, including insurance companies, are going to face to basically shrink the size of the entity.

Ernst and Young also performed a survey of insurance companies on *SFAS 107* disclosures on practices relating to the liability side of the balance sheet. The survey was performed in December 1992 and elicited some 52 responses. We discovered that most companies have employed a discounted cash-flow approach to the valuation of liabilities. Forty percent of those responding used book value equal to fair value for certain products. Three of the 52 companies responding planned to disclose the fair value of insurance liabilities, even though that is not required by the statement. Only one-third of the respondents thought the effort was worth it. Probably the most significant conclusion here is that a wide range of practices existed, which clearly makes the numbers reported questionable as to comparability between individual companies.

What future applications can we draw? I'll mention a few, and I'm sure you can add many more to the list. I believe market-value accounting is here to stay, so we might as well learn to live with it.

CHART 2

If in Restructuring the Debt Securities Portfolio in Response to the FASB's Proposal, the Size of the Portfolio Is Reduced, Resulting in "Available" Proceeds, How Would Those Funds Be Utilized by the Institution?



There will be more pronouncements in the future. One we have not addressed today is hedge accounting, which may have some significant effects on market-value accounting in general. Based on the surveys performed and discussions with several of my own clients, investment strategies will change, certainly in the short term. I also believe that liabilities will be included in the relatively near future.

Many of you are familiar with the December 1990 discussion memorandum from the FASB relating to present-value-based measurements in accounting, a topic that is far beyond me to completely comprehend. However, that's one that will clearly be discussed in the months and years ahead, and it might give a glimpse of what financial statements might look like down the road.

Finally, there is the statutory response. Through RBC, the IMR, the AVR, and other regulatory requirements mentioned earlier, the statutory authorities have also addressed the issue of asset risk. The NAIC's model investment law will further restrict insurers' abilities to invest in certain securities and hamper your company's ability to attain returns you may need from your assets. What the statutory authorities will do beyond these items is anybody's guess. However, if GAAP accounting moves to a market-value-based approach, my guess is that the statutory authorities will feel compelled to adopt some sort of market valuation, probably based on their own unique formula, particularly if portfolios go under water.

MR. EDWARD L. ROBBINS: When Kriss asked me to participate in this panel discussion about six months ago, I hadn't really thought very much about the topic. And, in the back of mind, I was thinking of how I could possibly make this subject interesting to actuaries. Why should actuaries care about a subject that seems so

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accounting-oriented? Well, several events have taken place to make me change my mind about this. For one, during the last few months, I've gotten smarter about the subject; ignorance was bliss.

A couple of events have basically made these things into actuarial issues, in my opinion, and much this is one person's opinion, embellished a little bit by a brief survey that we took of other companies. First, there's a question of how companies may change their investment strategies as a result of *SFAS 115*. And by the way, everything I'm saying here presupposes that market-value accounting is going to be on a one-legged approach for quite a while; i.e., market values for assets but no market value of liabilities.

How will this affect the cash-flow-testing process? Obviously, vendors are going to have to put in a new release that talks about taking your held-to-maturity assets and not being allowed to sell them during the negative cash-flow scenarios. So look for another release from your software vendors to accommodate that. I think there will be more emphasis on stochastic pricing. It looks like deterministic pricing is going to be deemphasized in the future. You really want to see what it's going to do to your GAAP balance sheet, what a particular pricing strategy is going to do to your GAAP balance sheet. So some of those things are going to become very important in the near future.

Will the cash-flow-testing process end up intermixed with risk theory? All of a sudden, the ruin tail under the curve is going to become much larger if cash-flow testing is applicable to GAAP. And the ASOPs appear to indicate that cash-flow testing is applicable to GAAP. All of a sudden, with market-value accounting on the asset side, the ruin tail is going to look like a much less remote possibility under the various stochastic scenarios.

It leads to the question of what steps a company is going to take to diminish the area under the ruin part of the curve. The conventional wisdom might be that companies may do some reinsurance, they might change their investment strategies, they may shorten up, they may buy floaters instead of fixeds, and they might buy safer types of investments as well.

Let's talk about hedges for a moment. If you do increase your emphasis on hedging transactions, who's going to take the other side of the increase in the hedging transaction? If the answer is nobody, then the cost of hedges is going to increase. And that's something you should be factoring into your cash-flow testing in any event.

There's a second issue that is potentially important to actuaries. There's an old FASB course: may your new GAAP requirements soon be followed by a change in the tax law. Well, many of you know that there is a new Section 475 in the Revenue Reconciliation Act of 1993. This was a real sleeper. Until about three or four weeks after the 1993 Act was passed, companies had no idea that they might be subject to mark-to-market accounting for tax purposes. That now looms as a very real possibility.

I basically want to talk about *SFAS 115* in its details and then briefly discuss the new tax law. Finally, I want to talk about a survey that we took of 30 companies as to their opinions, their attitudes, and what they intended to do.

Doug Johnson gave you the history and a very brief synopsis. FASB wanted to eliminate accounting based on intent instead of accounting based on the characteristics of the asset. For those of you who are unaware of what accounting based on intent is, it's sometimes cynically called income recognized as needed. Anyway, let's jump right into *SFAS 115* and what it's about.

SFAS 115 requires you to take the assets that are included under 115, but they are not all invested assets, and divide them into three categories: held to maturity, trading, and available for sale. The exceptions to the assets included under *SFAS 115* include equities accounted for under the equity method and investments in consolidated subsidiaries. And, because *SFAS 115* is intended to cover only the narrow accounting definition of debt and equity instruments, residential mortgage and commercial real estate loans are also excluded. A very interesting thing. We had a client that wanted to securitize a very large mortgage portfolio to get its RBC requirements and its AVR requirements down. All of a sudden, *SFAS 115*, by means of securitization, will throw these assets into a mark-to-market-value adjustment. So in this situation, it's between a rock and a hard place.

At each reporting date, you're supposed to reassess the appropriateness of the classification of each asset. What's the result if you classify an asset as held to maturity? The result is that you can continue to measure it at amortized cost. It's business as usual for a hold-to-maturity asset, but you're generally locked in; you're only allowed to sell that asset for one of six virtually all-inclusive reasons. Let's go to the six reasons.

These are the six reasons you can sell a hold-to-maturity asset. And there's a very, very limited catch-all beyond the sixth, which I'll go into in a moment.

1. If there is evidence of a creditworthiness change in the asset; we don't know what evidence means at this point.
2. If there's a tax law change, for example, making a tax-exempt security into a taxable security. By the way, that does not include a change in marginal tax rates. It doesn't address, for example, the creation of an independent tax system such as the Alternative Minimum Tax which was created in the 1986 Tax Reform Act.
3. Major business combination or disposition necessitating the sale of held-to-maturity securities to maintain your C-3 risk position or your credit risk policy.
4. Statutory constraints on investments. Most of you know that the domicile investment laws of the states have maximum and minimum categorizations for invested assets. So, if those change, you're allowed to sell assets otherwise classified as held to maturity.

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5. Increase in capital requirements causing downsizing. I'm not sure that has a tremendous applicability to the life insurance industry.
6. If your RBC factors markedly increase so that it becomes onerous to maintain those assets, that's an excuse to sell as well.

These six reasons exclude some very important reasons you might want to sell. For example, you want to sell for duration reasons, you want to sell for all kinds of realignment reasons; you can't do that anymore. You run the risk of putting the entire held-to-maturity portfolio into the available for sale, if that happens.

Now, I talked about the fact that you can go beyond these six reasons. And I'll read to you what the FASB says. "Other isolated, nonrecurring and unusual events that could not have been reasonably anticipated can cause the sale of your hold-to-maturities (HTMs), without calling into question the intent to hold other debt securities." Note the words *isolated*, *nonrecurring*, *unusual*; FASB doesn't really expect to see too much of that.

There are some detailed disclosure requirements. When you sell an HTM, there are many disclosure requirements in the process. You've got to show the amortized cost, the related realized or unrealized capital gain or loss, and the circumstances leading to the decision to sell or transfer the security. They want to know. They reiterate that such transfers or sales should be rare, except for the specific six reasons that we've mentioned here.

One interesting concession that FASB made was that two types of sales can be "considered as maturities." The first is a sale near a maturity date or a probable call date. The call must be probable. And that's a reason for selling an HTM without tainting your HTM portfolio. The second reason is where at least 85% of the principal of security has been returned, for example, on some sort of mortgage-backed security. That's a reason for selling the remainder.

Now that we've established what the three categories are, what's the importance of an asset being in a particular category? What's really the result of categorizing something as an HTM, an available for sale (AFS), or trading? You recorded an HTM at amortized value, so it's business as usual for the HTMs, except you can't sell it anymore. You must mark to market the available for sales, but for purposes of earnings, the unrealized holding gains and losses go directly to a separate component of shareholder equity. When the gain or loss is realized, the book-to-market adjustment gets dumped back into GAAP earnings. For the trading portfolio, you must mark to market and every fluctuation in market value goes to GAAP earnings.

What about transfers from one category to another? If you transfer out of your trading account, you set the new amortized value for future GAAP earnings purposes at the market value at the time of transfer. That's logical. If you transfer from available-for-sale to hold-to-maturity, you amortize the book-market difference in shareholder surplus in a manner consistent with normal-level yield amortization methodology. FASB feels that the only nonrare transfers should be from available-for-sale to hold-to-maturity. To or from trading should be rare and from held-to-maturity should be rare as well, and we've got the stipulated reasons for that.

Let's go into some of the editorial comments. First, *SFAS 115* passed five to two; it was not unanimous. But the two dissenters were not particularly comforting. They basically said everything should be marked to market, and all market fluctuations should go through earnings. So you can't find much comfort with the two dissenters' opinions.

Second, any company with trading-account gains and losses, or where there is a dump from available-for-sale into trading, is going to affect gross profits under *SFAS 97*. So those of you who are on *SFAS 97* should take that into consideration. This is the opinion I get from other people in our firm, and it looks like a fairly unanimous opinion.

What are the advantages of a trading account? One advantage that's been suggested is that if you have a trading account and put it under your *SFAS 97* portfolio, the interplay between the market-value fluctuations of your trading portfolio and the deferred acquisition cost (DAC) amortization gives you a bit of a cushion to your market-value adjustments.

Doug indicated that FASB consists of a bunch of smart people. They understand the inequity of not adjusting the liabilities to market. They gave two reasons why they did not really feel predisposed to allowing market-value adjustments on liabilities. Number one, the respondents did not propose workable solutions for valuing liabilities that were not unacceptably complex or permissive. I guess some people feel that what you can't measure is not important. In any case, the roadblocks that the FASB drew up included the concept that there are many differing opinions on the part of the people giving testimony at the hearings. Some respondents thought that there should be a cash-reserve-value floor on market values and some didn't. Some felt that the underlying assets to the liabilities should influence the market value of those liabilities and some didn't. You've all heard the expression that when the experts are divided somebody else makes the rules. And, after getting burned several times during the last ten years, you might think our profession could handle these situations a little better, but we apparently did not. In any case, the FASB truly thought it had a workable, temporary compromise in allowing unrealized gains in the available-for-sale category not to go through GAAP earnings. The COLIFR has put together a task force to meet with the FASB again to review alternative methods of market-valuing liabilities.

The IMR approach would possibly have solved one of the major problems of gains-trading. But there are still ways. For example, if you have appreciated assets in the available-for-sale category, you could dump them into GAAP earnings by transferring them to the trading portfolio. The sanctions against that appear to be just a bit weak. So it may be that you don't have a completely workable solution here.

I want to mention some interesting language in paragraph 99 and 100 of *SFAS 115*. It basically says that it's outside the Board's role to deal with the consequences of changes in investment strategies as a result of this statement. So, basically, they have no interest in the change in business practices that they may be causing; it's not their problem. That is my read on those two paragraphs. Also, if you have an asset that's held to maturity, and you can't sell it in advance of evidence of credit deterioration and still come into the safe harbor, what is the usefulness of an investment

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advisor or an investment manager now? You're basically paying the investment advisor for advice, but once you actually put something into the held-to-maturity category, you can't do anything with it. It's frozen, except for certain, very specific reasons. So the ability of an astute investment advisor to look down the road at the eventual deterioration of an industry is to some extent diminished under *SFAS 115*, as long as it stays around in its current form.

What will this do to the price volatility of insurance stocks? Some people are saying that they're going to be much more interest-sensitive. Insurance stocks will be much more interest-sensitive, they'll have higher volatility than they used to.

And, as if GAAP weren't enough to peak your interest, the Revenue Reconciliation Act of 1993 is requiring mark-to-market accounting for what it calls dealers in securities. And it appears that life insurance companies, unless they're carved out of it by regulation or otherwise, are going to be considered dealers in securities. You can still take out some assets from the mark-to-market category by classifying as held for investment and not available for sale. But the legislation was written without life insurance companies in mind; it's extremely complex and ambiguous. Our firm has many questions relative to it at this time.

In conclusion, we took a brief opinion survey of about 30 companies. Within the last month or so, we received about 11 responses indicating the great degree of certainty with which companies feel about this thing at the moment. Eleven of 30; obviously, it's not statistically credible. But, whenever you don't have a statistically credible survey, you reemphasize the anecdotal comments and the editorializing you get back. I just want to give you some interesting aspects of that.

As I said, if you have an *SFAS 97* portfolio, put your trading portfolio under that line, because it will help cushion the effects of your market-value fluctuations. One company even went so far as to increase its trading portfolio to reduce its volatility in earnings under *SFAS 97*. You're playing a bit of a dangerous game with recoverability issues and the like. But one company was interested in doing this. Another company has been performing many cash-flow-testing scenarios to determine how much it could stash away in the held-to-maturity category and never have to sell it under the worst-stress scenarios by actually using the cash-flow testing process to determine how much it could put into the held-to-maturity category. It even went so far as to ask me whether it could use held-to-maturities as collateral for a loan. I don't think so. I think there's a real problem with that. And so the question is, in cash-flow testing, can you assume borrowing instead of selling against that type of portfolio, a hold-to-maturity portfolio? I would say the answer is probably no.

The little statistical information we got out of the survey, and these numbers are subject to very wide fluctuations, are: trading was about 2% of the portfolio, 65% was available for sale, 33% was in hold to maturity. And, again, I want to reemphasize, the figures are not credible. One buy-and-hold company had a huge hold-to-maturity portfolio anticipated; and that, incidently, is the one that's using the cash-flow-testing stress scenarios to try to put as much as possible into the hold-to-maturity category to reduce its balance-sheet volatility. Only four of eleven companies said that it would definitely affect investment strategy. Perhaps that's because so many people feel that *SFAS 115* isn't going to be hanging around very long in its

current state. Of course, six of the remaining seven were not sure, so I don't know what that really meant.

There was a question on product-line reemphasis. What sort of moves are you going to make, what directions are you going to take, in terms of deemphasizing certain product lines and increasing emphasis on others? There was some slight movement toward increasing emphasis on variable products.

MR. ARNOLD A. DICKE: I was asked to talk about where we're going in the future. Two groups are trying to help lead us into the future on this subject, as far as actuaries and insurance companies are concerned.

First, Ed mentioned there's a task force that's been set up by the Committee on Life Insurance Financial Reporting of the Academy, and that group is being chaired by Jim Hollman from Tillinghast. If you have an interest in contributing ideas, they might be interested in hearing from you. I understand one of the first tasks is to catalog methods that people have already used. So that's the first group.

When we talk about experts being divided, we should be clear the Academy made a single response. It has been working closely with FASB during the last couple of years on these issues and actually has been asked by FASB to develop some ideas about market-value accounting for liabilities. So I don't think there's any doubt about it being on a single path there. There has been a lot of discussion by actuaries with FASB and there is right now a project getting underway at FASB to investigate fair-value accounting. They're expecting to base it on what the Academy gives them assuming far as the proposal turns out to be good.

Second, I'm chairing a working group on liabilities for the task force on market-value accounting of the ACLI. That group is different. Having left the Academy group, I'm trying to put up a type of Chinese Wall between these groups, because it's clear that the Academy succeeds better by acting as a professional group and by being careful not to try to act like the representative of the insurance industry. There are specific concerns that companies have, things to do with the cost of doing different things and so forth, which the ACLI group will definitely bring up.

I would point out that many people at that group's first meeting expressed a preference for what amounts to an IMR approach. Ed mentioned that has been brought up extensively with the FASB. We'll bring it up again, but I don't think there's too much hope. It may be the best approach, but the FASB doesn't agree with us. I brought it up personally and was asked for back-up materials from the statutory approach to doing IMR. I sent all that, and then I sent in a personal response that suggested the IMR would be a good way to go. But afterward, the board members told me that it was discussed but didn't seem appropriate to them. I don't understand enough about accounting theory to know why, but it didn't seem to fit accounting theory. So I don't think we have a lot of hope in that direction, unless there's a change at the FASB.

I want to mention a very interesting person, maybe sort of an ally of ours in this situation, and that's Representative Dingell. He has written a letter to the FASB

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asking how it can do one side of the balance sheet and not the other. He expressed his opinion very clearly.

What I really had in mind was to talk about where we're going with fair valuing of liabilities and how actuaries are working on approaches to try to do some fair valuing of liabilities. We have expressed to FASB the idea that the actuarial profession is the best profession to put a fair value on insurance liabilities. We have been trying to find out what some of the methods are that actuaries have been using or what they have in their minds as the right way to go about doing this.

If you have a different method, if your company's used a method for disclosure under *SFAS 107* or anything else, I encourage you to let both of the groups I mentioned before know about it. So let Jim Hollman and me both know about these methods, because we want to know what they are. I have three to talk about now.

Let's start by looking at what an insurance balance sheet looks like. Naturally, as you know, a fixed block of life insurance obligations is subject to GAAP accounting under either *SFAS 60* or *97*. There are assets corresponding to these obligations. The obligations and the assets make contributions to shareholder's equity. And you can see in this particular balance sheet (Table 2), which was the one that was submitted with the Academy proposal, what a normal balance sheet might look like. We've broken out the cash to be equal to the equity so that you don't think that that's going to be part of the assets. All the equity is sitting there in cash; the rest are invested assets. So this is a typical balance sheet. The equity is the difference between the invested assets and the DAC on the one side and the policyholder reserves on the other.

TABLE 2
Initial Balance Sheet

	Book Value
Assets: Investable Assets	\$4,553
Cash	528
DAC	<u>724</u>
Total	\$5,805
Liabilities & Shareholder Equity:	
Policy Reserves	\$5,277
Equity	<u>528</u>
Total	\$5,805

We can write it as an equation: $E(T) = A(T) + D(T) - R(T)$.

E at T is the equity at time T , A at T is the assets, D is the DAC asset, and R equals the reserves.

$$\begin{aligned}
 A(T) &= \int_0^T a(t)e^{-i(t-T)} dt \\
 &= V[a; i, T] \\
 i &= \text{IRR of portfolio} \\
 &= \text{"book yield"}
 \end{aligned}$$

Look at that first line. I'm trying to express the assets as a present value, that's what that's all about. This is really nothing more than the normal present-value description here. It's simply saying the assets can be reflected as a present value of a cash-flow function, little A of T . So in e to the $-i(t - T)$ power, i is really the force of interest that we're talking about here. And to make it simple, every time you have a present value you can use the same sort of approach. If you have a cash-flow function and a force of interest, and you know the time, those are the only variables in that integral. So let me write it all as B of the cash-flow function, the interest rate, the force of interest, and the time.

Now, let me point out, if we're talking about the actual assets, the interest rate that you have to use would be the internal rate of return of the portfolio, which we're going to call the book yield. We can visualize that same present value with the reserves. In that case, you would use some other kind of function, cash-flow function R . This is going to be all the cash flows that go into reserves, the benefit payments over time, and you use a different interest rate, the valuation interest rate. And, if this is a GAAP statement, then that would be set by whatever the rules are for *SFAS 60* or *SFAS 97*.

$$\begin{aligned}
 R(T) &= V[r; v, T] \\
 v &= \text{valuation interest rate} \\
 D(T) &= V[d; j, T] \\
 j &= 0 \text{ for FAS 60} \\
 &= v \text{ for FAS 97}
 \end{aligned}$$

Now for *SFAS 97* you have to think about this a little differently. You might have to construct a cash-flow function that would make it come out the way it has to come out, but you can always express it in this kind of form if you want to. And you can similarly do DAC in that way. Possibly, the way to do it is with those interest rates, but I'm not going to go into that right now. Let's assume you can set these functions up as present values of some kind of cash-flow function.

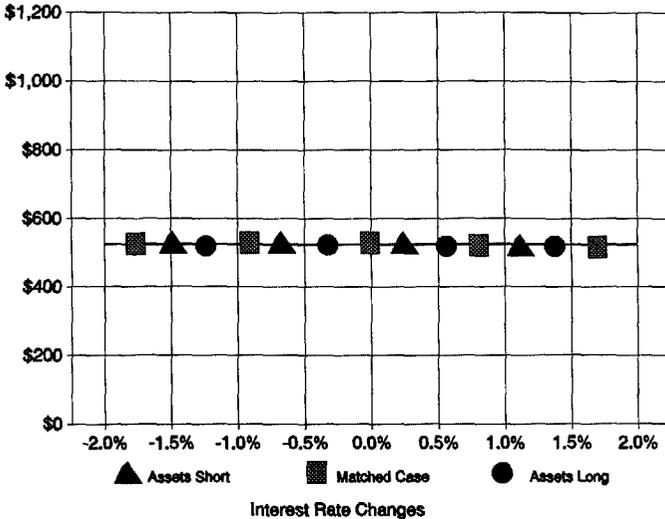
Obviously, if you have both the assets and liabilities at book value, then one of the things about it is that if you have interest rate changes, nothing much happens. Chart 3 shows interest rate changes across the bottom. There is no change in the center, and as you go to your right, interest rates increase and then decrease in the other direction. And the little triangles illustrate the situation where assets are shorter than liabilities, the squares are where they're matched, and the circles are where they're long, so they're all basically the same. If they're at book value, changes in interest rates don't affect the balance sheet.

However, if you put in market values, market values will recognize changes in interest rates. They'll also recognize other things, such as the value of implicit options that

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may be included in the insurance product, and they'll also recognize things like market perceptions of creditworthiness. Because real market values, as opposed to present values that we might construct with any old set of interest rates, represent the market's perception of the creditworthiness of the financial structure.

CHART 3
Equity After Interest Rate Changes
Assets and Liabilities at Book Value



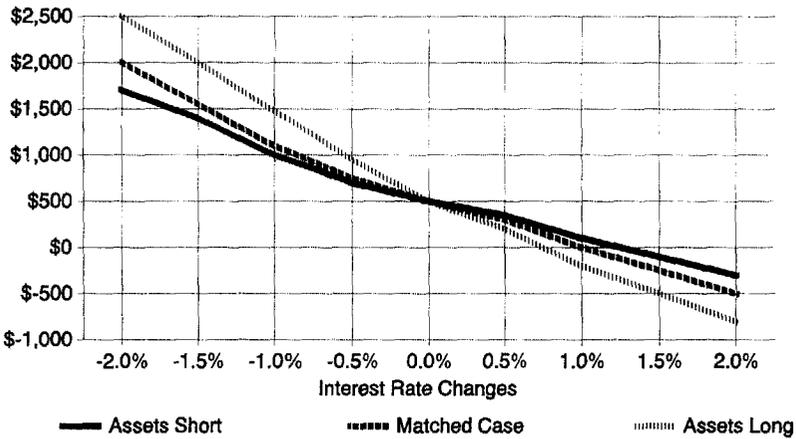
Now remember, $A(T)$ is the book value of assets. Suppose we had to replace that with $A'(T)$, which represents the market value of assets, actual market values taken out of *The Wall Street Journal*. Again, you can construct the market value of assets as a present value. The only difference is that you'd have to change the interest rate you're using. You could say the market value must be the present value at some interest rate of these cash flows that I know are coming in. Of course it is. And that particular interest rate is what financial analysts call the financial discount rate. So that's the financial discount rate of the portfolio or what we might call the market yield. It posts as a book yield, it was just / without the prime.

Now the problem is that, if you just stick in the market value of assets, of course, this particular thing isn't a very good representation of equity, because it's improperly volatile with respect to interest rate changes. Chart 4 shows what happens if you change only the assets to fair value and leave the liabilities at book value. In the case where the assets are short and in the case where the assets are long, the curves are somewhat different. But the disturbing thing is that in the matched case, equity changes. Even if you have it perfectly matched, it changes. With interest rate changes, if interest rates go down your equity goes up; if interest rates go up your equity goes down.

Ideally, you would like to have a situation in which the assets and liabilities are both at fair value so that the matched case stays unchanged with interest rate changes. If

the assets are long or the assets are short, they'll show the difference. Chart 5 is better in a sense, this is probably what FASB is looking for. It wants something that will reflect the curved lines. And in a sense, we have to say as professionals that it's not unreasonable for FASB to want that. As companies, we might say we wish it could just be left at book value, because it would allow us to go along without having to be embarrassed by all these changes. But you can understand why, let's say, a stock investor would like to know why you're way up on that "mismatched" curve instead of being on the "matched" curve. It's reasonable kinds of information for them to want. But the other curve doesn't give that, because all the curves have the same bias. So this is what you want to get to.

CHART 4
Equity After Interest Rate Changes
Assets at Fair Value; Liabilities at Book Value



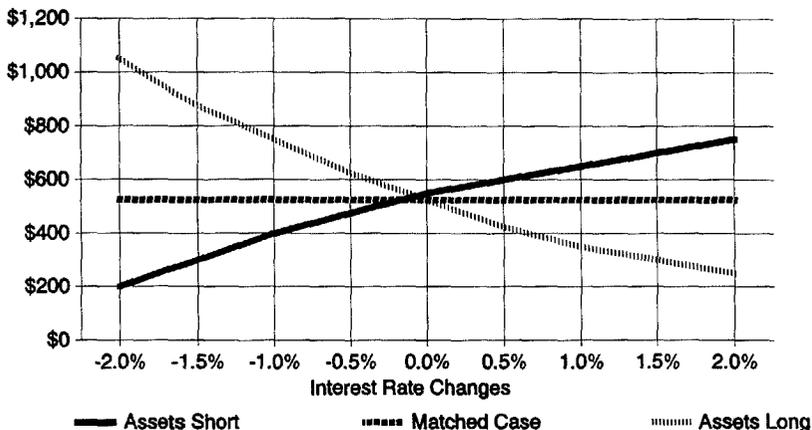
Now, how can we fix the accounting procedures that are used by the FASB to try to get to this? I'm going to suggest two basic categories of fixes. I'm calling them fixes so that we don't think of them as being anything too exalted at this point. They are used to try to fix financial statements, to make them work and give out the kind of information that was in Chart 5.

The first fix is the most straightforward idea. Take the reserves, take the DAC, the two remaining book-value items, and replace them with estimates of the market value of those items. That's one way you can approach it. In that case, because you have estimates in market values, fix 1 would reflect changes in interest rates in a proper way. Real estimates in market values would reflect the value of implicit options in the insurance contracts and would also reflect the market perception of the total eventual profit. Remember there was a period of time when people were trying to actually make a market in the DACs. They were trying to have a securitization of the profits and a securitization of the DAC, and they were trying literally to make a market in it. If you have a market like that, the present value of profit is going to be

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included in the price. If somebody is going to buy a block of business, he or she is going to know what the present value of profit to include in their price. So that, in a sense, is a problem in the accounting model, because all the expected profit pops out on day one.

CHART 5
Equity After Interest Rate Changes
Assets and Liabilities at Fair Value



Now fix 2 is somewhat different in that it's a thrust. Remember, all we're looking for is a fix. So is there some way to express the benefit reserve and the DAC asset as functions of market interest rates in such a way to get the kind of results you want? In particular, what you would like fix 2 to reflect changes in interest rates, but not necessarily the value of implicit options, and, in particular, you hope to arrange it so that the profit would be spread over the life of the business instead of having it all come out on day one. And that kind of an approach has been suggested by Dick Robertson of Lincoln National. I'm going to discuss it a little later.

So let's look at fix 1 to begin with. There are two versions now of fix 1. I suggested this version 1A. Mike McLaughlin and I took this idea to the FASB. When it responded that the approaches were too complex, I think this is the one it was responding to, so I don't think it's the winner. But it's a kind of natural approach that we suggested, which is simply to estimate market value as the actuarial appraisal value of an assumption reinsurance premium for the business. The FASB thought that was a good approach, too, until it came to understand how we do these things.

The problem is, first of all, there's no market for liabilities without assets. It didn't quite grasp that right away, but when people actually buy blocks of business, the assets are usually included with the liabilities. And so what we suggested for a solution was to take the value of the net liabilities and estimate it as the appraisal value of the block less the market value of assets. Well, that's where the people at

FASB started realizing we were involving the assets in the calculation, and this bothered them. And maybe it's troublesome from the point of view of accounting theory, which, as I say, I don't know anything about.

Another thing that has to be settled in doing this is the choice of the discount rate. How are you going to choose a discount rate? We all know that in doing appraisals we often do them with three discount rates, I think, to give the buyer a choice. But, obviously, what they're getting at there is that the buyer and seller are valuing this business for their own purposes. What you really want is the financial discount rate that I discussed before. You want to have what the market really set on this. It's a place where the buyer's ideas and the seller's ideas cross, and somebody really makes a deal. So we'd have try to estimate that. It certainly is not a risk-free rate; perhaps it could be determined from recent transactions. I know consultants see a lot of this, and it's possible that we could put together some sense of what has the financial discount rate has been for various types of insurance transactions. But, of course, it depends on the riskiness and there are many subtleties in trying to do this. And, as I said, the FASB is disturbed that the result may depend on the original asset portfolio.

The other version of Fix 1 was suggested by Owen Reed of Sun Life of Canada. He said he actually uses this in the U.K. where his company has to do market values. Market values of both assets and liabilities have been used for a decade or so in the U.K., but it's a different accounting system altogether. Overall, it's something they call an accruals method. An accruals method is rather similar to the approach that was suggested by the Society's subcommittee to the Committee on Demutualization. The subcommittee produced a report on mutual company financial reporting and suggested a method that essentially is related to the accruals approach. It's an approach of essentially accounting for everything by determining the present value of cash flows at the internal rate of return of that particular set of cash flows. Anyway, that's what's used in the U.K. And over there they're able to find a way of putting market value on.

And the way Owen does it, or suggests doing it here, is to estimate the market value as the market value of assets required to satisfy an asset-adequacy test. Those are not Owen's words but, in effect, that's what he's saying, because we now have this asset-adequacy test that we have to do in the states to pass the new valuation requirements for statutory accounting. The same sort of process could be used, Owen suggested, to put a market value on the liabilities.

The problem is, in multiple scenario testing, which scenario do you use? In other words, you say the market value of assets would just equal liabilities under that scenario. Well, which scenario? The New York Seven aren't very helpful here. It turns out that in the U.K. there are three mandatory scenarios, and there they do take the worst case. That's how they approach it in the U.K. I suppose if you're doing random scenarios, you could also determine in advance the adequacy level you're trying to reach and choose a scenario that just satisfies the test at that level. Now those two approaches are very similar, because they're based on what amounts to an actuarial estimate of the value of liabilities in our normal actuarial approach.

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A very different, subtle, and interesting approach has been suggested by Dick Robertson, and it's based on two conditions. I want to tell you in advance the key to the approach is the verbalization of it at the end. He's using some math to prove that his verbalization makes sense, but I think what you would do is take his verbalization and apply that directly. So let me go through the derivation and I'll emphasize what the verbalization is.

Fix 2 Robertson approach

Condition 1

$$E'(T) = A'(T) + D'(T) - R'(T)$$

$$\text{where } R'(T) = V(r'; i', T)$$

$$D'(T) = V(d'; i', T)$$

with r' and d' independent of interest rates.

Condition 2

$$\text{if } i' = i,$$

$$R'(T) = R(T)$$

$$D'(T) = D(T)$$

for all T .

Dick says let's assume there are two conditions. The two conditions need to be met for this thing to fix the accounting system within the context of FASB rules the way they are: SFAS 60 and 97. He says that you want the new equity to be the sum of three parts: the fair values of assets, DAC, the difference between those two, and reserves. And he says to assume that we can set up the reserve and the DAC with some kind of new cash-flow functions: R' and D' , they're unknown cash-flow functions. Let's assume we can find some and get them to work so our new fair values will come out as the present value of those particular cash-flow functions, using i' , the market discount rate, that we got from the market value of assets.

And his second condition wants to say, if that market value of assets at any time equals the present value at the market interest rate, the market yield at any point equals the book yield, the internal rate of return of the portfolio and normal amortized cost basis is being used, then you want these two functions to come out to be what they used to be. So, in other words, if there is no difference in interest rates, you don't want any change from where you are today.

An important condition is that the expected cash-flow functions – a , r , and d – are assumed to be independent of the market interest rate. So his proof doesn't really go through to the more general case that we know occurs when things like lapse rates are interest rate dependent. But maybe we can see how that will generalize. Then, when you put those two things together, you get these results. This is what you probably should concentrate on; forget about the math to get here. He's actually able to say, I can GAAP these new cash-flow functions to be equal to the old cash-flow functions. So R' is equal to RT , plus a modification. And the modification is the book yield minus the original interest rate – the valuation interest rate in the case of the reserves. In other words, it's the original spread. That's a very interesting result. So verbally you can say that the reserve and the DAC function should have had primes. The new reserve and new DAC function are the present values at market

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yield of the expected cash flows that you had from before, plus the expected spreads. Now that's the thing that I think you could apply. And, if FASB can buy that, I think that might be a way to go.

Now it's important to note that R' and D' are not actually market values. There are a number of conditions in there that stop them from really being market values; they're simply ways of adjusting the accounting system so it will tend to work.

Well, where's this all going to go? It's an interesting question. FASB is very open to hearing more about this. But from the point of view of the profession, I think it's even more important than that. The ability to put fair values on insurance liabilities is something that actuaries need to be able to do. It's important for us to do this. And I think it will be a good test of our profession's ability to react to a situation, if we can come to an agreement on a good method for doing this. The need to adjust the statements is also important, and the answer may not be the same thing. You may say the best estimate of the market value is done this way, but the better adjustment of the statement is a little different, because there are practical concerns here and because it comes in the context of *SFAS 60* and *97*, which may not be the most ideal structure to start with.

So I think overall we may end up with two things: the actuarial profession is coming to grips with the concept of market value of liabilities and possibly a way to adjust financial statements so that they will in the future make sense, perhaps more sense than they did even in the past.

MR. MICHAEL V. ECKMAN: I have a question on the interplay with *SFAS 97*, and that has to do with the available-for-sale account. Changes in that are going to flow through equity. And I've heard an argument and have been involved in discussions that we could have or we could argue for an offsetting change in DAC, like an unrealized change in DAC. Do you have any opinions on that?

MR. ROBBINS: I saw a letter to that effect, and let me elaborate on that. If you have a large uptick in interest rates and your market value of the asset goes down, if it were a trading portfolio asset you would end up with a higher DAC than you otherwise might have because the amortization would be less. Instead of going through earnings, if it's an available-for-sale asset, the asset change would go to the separate equity component. There's an argument that the offsetting DAC difference on a with-and-without calculation should also go to that separate component of shareholder equity. I think this is the issue you're speaking to.

All I know is that it's an issue that's coming up for discussion. That's all I know about it. Our firm is discussing that issue. The concept is that you might have an overstatement or an understatement of what your true balance sheet should reflect if you don't make a kind of concomitant adjustment to the DAC in the shareholder equity component as well. I'm involved in discussions within our firm on that issue right now, Mike.

MR. CLONINGER: It seems to me that it would be unfair to reflect the effect of unrealized gains that go directly to equity in your amortization of DAC if you're going

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to create earnings. I think you almost have to deal with realized gains and losses that are going to go through income in *SFAS 97*. And I personally would ignore the unrealized gains or losses in the available-for-sale category in determining amortization.

MR. G. THOMAS MITCHELL: First, I find it's dispiriting. I believe that the FASB board either doesn't understand or is not valuing the merit of matching assets and liabilities in financial institutions in the U.S. I see this as something that we've worked very, very hard on; it's something that I value and see as being very important in the insurance and the banking industries, in particular.

The second question is technical on the hold to maturity. What's the unit for the death penalty if you violate it? If Prudential sells one bond, does it hit all its branches and all its many activities and all its subsidiaries and so forth, for example?

MR. ROBBINS: My understanding is that it calls into question the entire hold-to-maturity asset portfolio. Maybe Doug would elaborate on that.

MR. JOHNSON: On the second question that is correct. The issue is that there's no practical experience out there, so what's really going to happen nobody knows. What's really happened is that the FASB has made an incredible threat and basically said that if you sell any security out of the held to maturity for a nonlegitimate reason, it's going to put your entire portfolio into jeopardy. Now what that means is that if the FASB doesn't go around and audit every company, it means that auditing firms like mine and Ed's are going to be doing battle with a number of companies out there, possibly in trying to interpret what really is meant and what really should cause the whole portfolio to go into question. So on that part of it, it's a little bit unknown, but what it basically says is just exactly that, that every single item in your held-to-maturity portfolio can be up for question.

Now for your first question, does FASB not understand matching assets and liabilities? I think that from what I read it does understand. I think, though that it took a view in this situation that this is a temporary solution. It realizes that it's not a perfect solution. It believes it's a temporary solution and that eventually it will get the other half corrected. It was under some incredible pressure. It also stated, in several instances, that it believes that as unfair as the accounting may seem, it is better than it was before. And so it believes it has moved a step in the right direction. It doesn't think this is the end of it, so it does believe in asset and liability matching. But it just thinks this is a better solution temporarily.

MR. DICKE: Let me just add that, as far as how much it takes to disqualify a hold-to-maturity category, there are a number of requests, particularly by the ACLI, that there be a safe harbor of 5% or some number, and that was considered and rejected.

