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Session 4PD
Fair-Value Reporting—Is There a "Fairer" Way?

Track: Financial Reporting, Investment
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Summary: The panelists review emerging proposals for reporting liabilities at "fair value."

Topics covered include:

- *The Fair-Value Symposium in March 1999*
- *The measures and objectives of fair-value reporting*
- *The implication for the income statement and balance sheet*
- *The alternatives to fair-value reporting, such as embedded value*
- *The impact on asset/liability management*
- *The status of deliberations at the Financial Accounting Standards Board and the American Institute of Certified Public Accountants*

Mr. S. Michael McLaughlin: I will start with a discussion of the Fair-Value Symposium held in New York in March 1999. There's a more detailed summary of the symposium coming out in the *Financial Reporting Section* newsletter in July 1999.

It wouldn't be an actuarial presentation without formulas and equations, but the ones I am going to present are some fairly simple formulas. They may seem a little trivial at first, but they're similar to formulas presented by Fred Choy of New York University during the Fair-Value Symposium in December 1995.

In thinking about these equations, keep in mind that each term will vary depending on how it's defined. Assets and liabilities can be valued at market cost, amortized cost, and other bases. To the extent that we measure both assets and liabilities consistently, we get equity measured on that same basis. These equations are

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clearly the summation of many individual elements, including assets, liabilities, income, or expenses.

Certain assets are specifically associated with specific liabilities. Others are not. They belong to some kind of general pool. The equations are still valid. Certain assets in these equations are monetary and easily measured by market value. Others are monetary, but not as easily measured. Still others are intangible and are the most difficult of all to measure. Remember, each of these terms varies with time, so these equations can vary very rapidly in short time intervals.

Let's discuss at each equation in turn. The first equation says that equity is the excess of assets over liabilities. This is the balance sheet equation. Under statutory accounting, this number has to exceed some level—zero, of course, but also some multiple of risk-based capital (RBC). This is the equation that takes priority under statutory accounting as compared to GAAP. Under both statutory accounting and GAAP, equity is determined by measuring all the assets and liabilities and taking the difference. The equity is the residual. There are other bases of accounting, such as embedded value or actuarial appraisals that measure equity directly. In fact, you would use that equation with indirect methods to get fair value of liabilities by determining equity and assets directly.

Some bases consider other types of assets, including present value of future profits (PVFP). With an actuarial appraisal or embedded-value method, those future profits may arise out of existing business or perhaps business to be sold in the future. The deferred acquisition cost asset is similar to the PVFP concept. We have an equivalent concept in present GAAP accounting.

Obviously, the basis of measurement of all these terms should be comparable. It would be inappropriate to have certain terms measured in U.S. dollars and others in some other currency. Likewise, if we're going to use fair value, you might not agree with that approach, but at least we would use fair value consistently throughout the equation.

We've talked about *Financial Accounting Standard (FAS) 115* at other conferences. Under *FAS 115*, we have a mixture of market value for certain assets and book value for certain liabilities. It doesn't work out as badly as it might first appear because of the deferred acquisition cost (DAC) asset or the PVFP asset, which very approximately offsets changes in the market value of certain specific assets. This first equation is the balance sheet equation and our primary statutory equation.

The second equation is the income statement equation, where profit equals the excess of income over expenses. Under GAAP certain expenses are spread so as to achieve a more realistic outcome in the solving this equation. Recall also that expenses include changes in reserves and DAC, so to the extent that those balance sheet number changes flow through to the income statement, this equation describes how that operates.

The third equation shows that profit equals change in equity. Here, we're simplifying a little. We're leaving out capital transactions, such as infusions and

shareholder dividends, but this third equation makes it clear that the income statement and balance sheet are tied together.

We've spent time discussing the priority of the balance sheet relative to the priority of the income statement. This equation proves that you can't have one without the other. What I think is more important is not so much whether balance sheet versus income statement is the objective, but which terms in these formulas are measured directly and which are derived.

I think these equations help also in the discussion of determining the objective of financial reporting, as well as the priority of income statement versus balance sheet. Are we trying to define equity, profit, balance sheet, or the income statement? It's all of the above and none of the above.

It seems to me that a good financial reporting mechanism is one that works consistently. Consistent rules are applied over time to all companies similarly, understandably, explainably, and in a timely manner. The financial reporting mechanism is solving all these equations. You have a set of simultaneous equations, some elements of which you measure directly, some elements of which you measure indirectly, and others of which you solve for. In fact, to the extent that you solve for some and measure others directly, this should be reconcilable between equations. Luke Girard will talk about that later.

Here are a couple of implications. Remember that, when it comes to equity and profits, residual items under GAAP are relatively small differences in much larger numbers. In our example, a 1% error in assets would translate to a 20% difference, or error, in equity. As another example, if we constrain insurance liabilities so that they cannot fall below surrender value, it could have a very large impact, not only on equity, but also on profit emergence. Another constraint I've heard suggested is that there should be no profit reported at the inception of an insurance contract. That's fine, if what we want to do is define profits, and we have concerns about accelerating profits, but we're going to have a compromise in the quality of the measurement of fair value.

It's difficult to measure some of these assets and liabilities over short periods of time. Market values fluctuate considerably. The value on December 31 may be significantly different from a day before or a day later. It's OK to target market values as long as we keep that in mind, and, given that volatility, we have to work very hard to ensure consistency among all the different elements in the formulas that are measured on a similar basis. Again, small errors will have a large impact. Of course, we report these values 30–45 days late, so it becomes all the more imperative to measure them at exactly the same point in time with consistent assumptions all the way through.

The difficulties with market values are significant. There are also obvious difficulties with present values because of the difficulty of choosing assumptions, especially the discount rate, and what risks are reflected. The current, latest issue, perhaps Deborah will talk about this, is whether to consider the credit risk of the entity that holds the liability, and the obligations to be paid in the future. If those

are considered, you get a different answer when calculating the fair value of the liabilities than if you do not.

As to what the future holds, no very clear picture emerges at this point in time. We are trying to solve a difficult problem, namely, how to define market value for liabilities in the absence of a market. We do have a viatical market. It'd be interesting to see if someone could do work on that to see to what extent viatical values or prices paid could somehow be reconciled to the way we attempt to measure the present value of these liabilities.

We do have some hope that the international bodies, ISC and IOSCO, will be able to move toward a solution. The only problem there is that they're watching the U.S. to see if we get to a solution first. But I do think it's worth the discussion. We are advancing knowledge if we reconcile appraisal values, option pricing methods, and have this type of discussion. We are moving forward with the state of the knowledge.

Mr. Luke N. Girard: My interest in financial reporting stems from the implications it has for management. I've worked in the insurance business for over 25 years and have observed that the accounting system is a critical motivator of management behavior. Unfortunately, the current accounting system no longer reflects what is happening in the marketplace. Within the world of management, the current paradigm has created and fostered its own unique reality, that is, a false reality that serves only to confuse management and the users of our financial statements.

Is it better to be precisely wrong or approximately right? This question is at the center of the battle between historical cost and market value accounting. Current market value is highly relevant, but its accuracy is limited. Historical accounting, in contrast, is highly accurate, but of little relevance.

This is a quote from the Financial Accounting Standards Board (FASB): "Fair value is the most relevant measure for financial instruments and the only relevant measure for derivative instruments." This indicates that the FASB has shifted toward increased relevancy. This increased emphasis does not necessarily have to come at the expense of less accuracy, because there have been advances in both valuation methodology and information technology.

As actuaries, we need to decide whether this is an ominous development that we need to resist at all cost or whether we should instead meet the challenge of improving the accuracy of market-value accounting.

In my presentation I will provide a brief overview of the two leading methods for valuing liabilities, the option pricing method and the actuarial appraisal method. Then I will show how an actuarial appraisal valuation can be dissected into parts that constitute the market value of assets and the market value of liabilities and how this relates to the balance sheet. I will end with a discussion of the assumptions.

The option pricing method has also been referred to as the "direct" method because the liability cash flows are discounted at the risk-free rate plus a spread. Included in the liability cash flows are the premium and benefit cash flows along with the expense cash flows. This valuation method is consistent with the way assets are valued in the capital markets. If the cash flows are certain, the discount rates are the spot rates. If the cash flows are uncertain, we need to generate interest-rate scenarios and then, to complete the valuation, probability weight the pathwise present values for each scenario.

The risk-free rate and the spread can vary with state and time. For the sake of simplicity and without loss of generality, I have left out the subscripts for state and time throughout this presentation.

The option pricing method has many advantages. The valuation method is independent of statutory accounting, RBC, and taxes. It is also independent of the investment strategy that is being used to fund the liabilities. Assumptions can be objective if they are derived from the marketplace. For all these good reasons, it is preferred by accountants and corporate finance professionals.

The actuarial appraisal method has also been referred to as the "indirect" method, because it is deduced indirectly from an actuarial appraisal. An actuarial appraisal is fundamentally based on discounting free cash flow. Free cash flow is discounted at the cost of capital in order to derive what is called discounted distributable earnings (DDE). And the fair value of liabilities is deduced by subtracting DDE from the market value of the assets.

The three steps involved are:

- Step 1: Determine the free cash flow. Many assumptions need to be made to arrive at free cash flow. They includes accounting, RBC, investment strategy, and taxes, in addition to mortality, lapse, and other assumptions.

- Step 2: Discount them at the cost of capital.

- Step 3: Determine the market value of liabilities, which is the market value of the assets minus discounted distributable earnings.

The actuarial appraisal method has many advantages. It is based, of course, on free cash flow, which depends on the important realities of statutory accounting, taxes, and investment strategy. It is flexible because it can incorporate actuarial assumptions of mortality, morbidity, and lapsation. It is generally accepted as a valuation basis in the merger and acquisition marketplace.

In my paper that will be published in the January 2000 issue of the *NAAJ*, "Market Value of Insurance Liabilities: Reconciling the Actuarial Appraisal and Option Pricing Methods," I show that it is possible to dissect discounted distributable earnings from an actuarial appraisal into three parts.

$$DDE = RS + (1-T)(MVA-MVL) + T(TVA-TVL)$$

First is required surplus or RBC. Second is the difference between the market value of assets and the market value of liabilities times one minus the tax rate. This component I call the embedded value.

The third part is what I call a tax basis adjustment. This adjustment is to reflect the possibility that the tax basis of assets and liabilities may differ from the statutory basis. This term becomes zero if the tax and statutory bases are the same.

In the equation below, I show that the decomposition of an actuarial appraisal can be reformulated in the balance sheet format, which is familiar to the method used in the accounting profession. Assets are equal to liabilities plus equity, where liabilities include deferred taxes.

$$RS + MVA = DDE + MVL + T[(MVA - TVA) - (MVL - TVL)]$$

The proof of this is based on simple algebra. It does not depend on any assumptions. It only depends on the definitions that I will explain shortly. In a sense, it is a tautology. That is, no new information is being conveyed by decomposing DDE in this way. However, the decomposition shows an important insight. The insight is that, under the actuarial appraisal method, the valuation of assets and liabilities can be done separately, with the market value of liabilities calculated as is done in the option pricing method by discounting the actual liability cash flow.

To achieve this decomposition, definitions are important. RS is the market value of assets that support the required surplus or RBC. MVA is the market value of the assets that support the liabilities. It is important to note that these assets are such that the statutory book value of the assets is equal to the statutory book value of the liabilities. This is generally the case when liabilities are transferred between insurers in a reinsurance transaction. TVA is the tax value of these assets and TVL is the tax value of the liabilities.

To enable the decomposition, we need to discount the liability cash flows at the risk-free interest rate plus a liability spread.

Under the actuarial appraisal method, the liability spread is defined as the "asset spread" minus a ratio of required profit (RP) over MVL. The ratio is the required profit divided by the market value of liabilities.

Note that the same asset spread is used to value both the assets and liabilities. While assets and liabilities are being valued consistently, note that, under the actuarial appraisal method, we are effectively discounting liabilities at the asset earnings rate. This is a concept that is contrary to the conclusion arrived at by the FASB.

The component of liability cash flow called "required profit" has special meaning. It is the pretax profit that needs to be generated by the product in order to earn the cost of capital. If this profit is generated, the shareholders should be satisfied because the company will earn its cost of capital.

$$RP_t = \left(\frac{k}{1-T} - j\right)RS_{t-1} + (k-i)(MVA_{t-1} - MVL_{t-1}) + \left(\frac{k}{1-T}\right)T(TVA_{t-1} - TVL_{t-1})$$

As you can see, the required profit is made up of three elements. Each element is the product of a component of DDE and a required profit rate specific for that component. The three components are required surplus, embedded value, and a tax basis adjustment that I mentioned previously. In the equation, *j* is the investment return on surplus assets and *i* is the investment return on product assets.

Many actuaries do get different answers when they use these two methods. If the two methods are the same, what makes them different? The answer is that there is nothing left but the assumptions. Actuaries must get different answers because they are not making consistent assumptions in applying each method.

The liability spread assumption depends on required profit, which, in turn, depends on investment strategy, RBC, and statutory accounting. As you can see, we really haven't changed anything. However, note very carefully that the spread assumption also depends on cost of capital (*k*) and taxes.

Let's take a closer look at the cost of capital assumption.

Everyone should agree that an appropriate cost of capital assumption should vary with the riskiness of the free cash flows we are discounting. Therefore, if we have a riskier investment strategy, we should be discounting at a higher cost of capital to reflect the higher risk. Lower RBC increases the riskiness of the cash flows because lower RBC increases leverage. Also, a more liberal or lower reserve basis also increases risk because of higher leverage.

This raises the question: Do changes in the cost of capital assumption offset changes in investment strategy, RBC, and statutory accounting?

If we assume that liabilities trade like securities and we have perfect markets, then we can show that the cost of capital is the expression below.

$$k_t = \frac{(j)RS_{t-1} + (i)MVA_{t-1} - (d)MVD_{t-1}}{DDE_{t-1}}$$

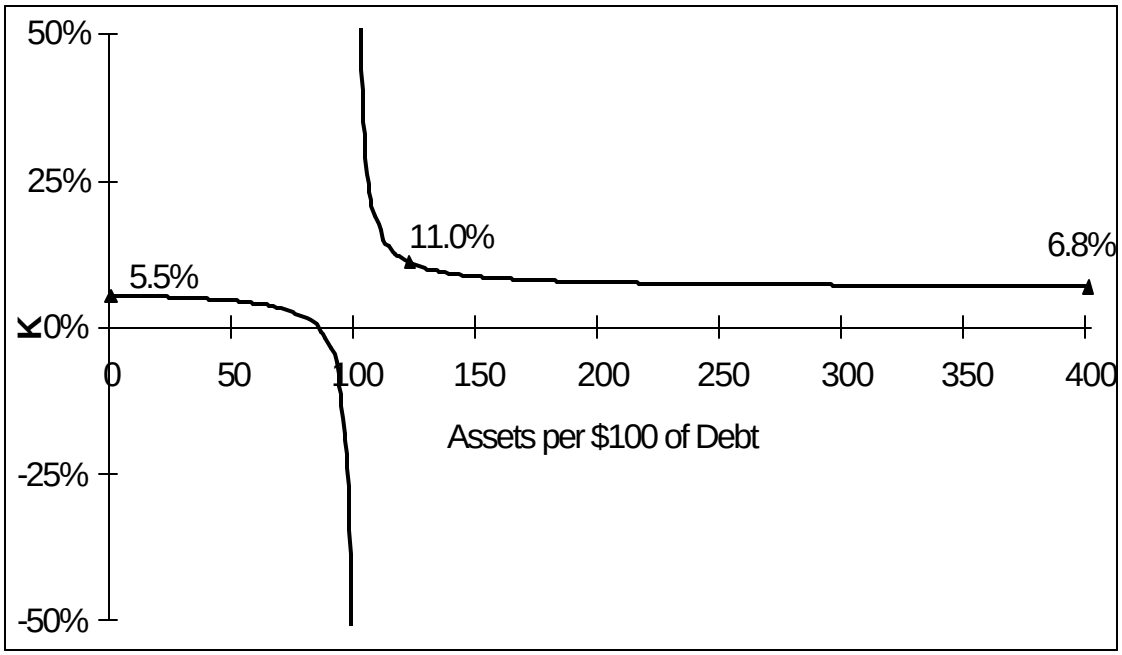
This expression assumes zero taxes and results from the no-arbitrage assumption. Franco Modigliani and Merton Miller (M&M) in their landmark paper, published in 1958, called this the "leverage-adjusted cost of capital." In their paper, M&M assumed a steady state where the cost of capital did not vary over time. The formula above is more general than the M&M equation. Here, the cost of capital,

cash flows, and all the other values can vary over time. Thus, M&M is a special case of the more general case presented in my paper.

Therefore, if we want avoid arbitrage in our valuation, we must discount at a leverage-adjusted cost of capital.

Important attributes of the leverage-adjusted cost of capital are illustrated in Chart 1. In the example, the investment earnings rate on assets is 6.8% and the cost of debt is 5.5%. As assets approach infinity, relative to liabilities, the cost of capital approaches the market return of the assets. This should make sense because, at the limit, the firm is 100% unleveraged and we have just assets and no liabilities. As the asset level approaches the value of debt, while DDE is positive, DDE approaches zero and the leverage-adjusted cost of capital approaches infinity.

CHART 1
LEVERAGE-ADJUSTED COST OF CAPITAL



As assets approach zero, relative to liabilities, the cost of capital approaches the cost of debt. This should make sense, because, in this case, the firm is 100% leveraged and we have just liabilities and no assets. As the asset level approaches the value debt, while DDE is negative, DDE approaches zero and the leverage-adjusted cost of capital approaches negative infinity.

This chart clearly illustrates the problem of valuing merger and acquisition transactions at one single "corporate" hurdle rate. Depending on the circumstances, this practice could easily result in mispricing a transaction.

In the equation for the leverage-adjusted cost of capital, I introduced a new term called market value of debt (MVD). It is the present value of the liability cash flows

discounted at the cost of debt. The cost of debt is the risk-free rate plus the debt spread or credit spread. In other words, MVD is what the liabilities would be priced at if they were tradable in a perfect market. MVD is different from the market value of liabilities. In both cases, we discount the same cash flows, but the discount rates differ. This difference in discount rates is caused by the effect of taxes. Recall that, without taxes, the liability spread is equal to the asset spread minus the ratio of required profit over market value of liabilities. Also, the equation for required profit is shown below, without taxes.

$$RP_t = (k_t - j)RS_{t-1} + (k_t - i)(MVA_{t-1} - MVL_{t-1})$$

If we substitute into the leverage-adjusted cost of capital formula into the equation for required profit, using some algebra, we can show that the liability spread is equal to the debt spread. Therefore, in the special case of no taxes, market value of debt is equal to market value of liabilities.

That we can determine the market value of liabilities by discounting the liability cash flows directly should not be surprising. However, what is remarkable is that we can arrive at this conclusion while using the actuarial appraisal method.

I will not go into any detail on how taxes affect the results; however, I can make some general comments about taxes. First, market value of assets and market value of debt do not change. The leverage-adjusted cost of capital changes slightly, but the change is very complicated, especially if we cannot assume a steady state.

Required profits increase because now we must pay taxes. This, in turn, reduces the liability spread. The lower spread means a higher market value of liabilities and the value of free cash flows or discounted distributable earnings is reduced accordingly.

In summary, I started off with the actuarial appraisal method. I decomposed discounted distributable earnings into its components using the decomposition formula, then deduced the market value of liabilities. I then made the assumption that liabilities are freely tradable in perfect markets. From all this, I concluded that liability cash flows should be discounted at the risk-free interest rate plus the debt spread and minus an adjustment for taxes.

Mr. James A. Robinson: My comments are from the point of view of an actuary who's been turned into an accountant more and more over the years. I'm now more a CPA than an FSA.

Let me start with a story. Imagine a cool, clear autumn day three decades ago with a bright blue sky and a university campus in lush central Virginia. We're talking about *the* university, Thomas Jefferson's academic village. The leaves are beginning to turn. The air is crisp with autumn chill and student hope. The commerce students, including me, are optimistic about their futures and bustling

about the lower building, which looks like the Hall at the end of the lawn at the University of Virginia.

We go into the MacIntyre School of Commerce and meet our intermediate accounting professor who starts off by telling us that he's just had a year off, a sabbatical, and how has he spent that year. He's been working with a task force that decided that the way of setting accounting standards by the AICPA in the past is inadequate and that things need to change.

He makes a big point to his class and explains that more independence is needed, that there have been numerous and continuing complaints from industry—including oil, construction, and other companies—that the auditors or the AICPA are not listening to. The rules are too simple, and they don't take into account all the interests of the various constituencies.

This task force stepped back and had to ask: "What is the purpose of accounting? Who are we trying to serve? It's much more than the auditors. We want to serve the investors, the people who choose which equities they're going to invest in, and the creditors. The financials have to serve the creditors, and they also have to serve the prospective customers of various companies. There are many constituencies, and they all need to be taken care of. Accounting isn't simply the matter of presenting some historical numbers that should be easily auditable. There's a lot more to it."

What to do? It was decided to fund an independent foundation and hire prominent, prestigious, and educated men and women from various disciplines to serve on this FASB. So, you can see that the start of this was very well intentioned. It started in this rotunda rising over the Hall with sort of a Jeffersonian inspiration.

Let's move several years into the future, into the 1990s. Picture a group of actuaries and accountants in a conference room. It's very comfortable inside, although the atmosphere is stormy because these professionals are reviewing their financials after implementing accounting for investments using the financials accounting standard. The professionals are going over the financials of their company, which are not pretty. Interest rates had risen a bit. Accordingly, bond values had dropped. There was no so-called “run on the bank” because specific and sufficient surrender charges were in place in the annuities to create a penalty for early withdrawal.

Nonetheless, there were problems in the accounting. At a particular company I'm thinking about, this group of actuaries and accountants had been lectured to about the importance of asset and liability (A/L) management for years. They were told that the assets should match the liabilities. The actuaries were told that the liabilities should be shaped during product development in such a way that sensible assets, purchasable assets, could be matched with them. The liabilities were well defined, as there were several years of surrender charges and customers couldn't readily walk with their money.

But when interest rates spiked up, the financials showed substantially reduced, if not negative, GAAP capital. Clearly, GAAP did not reward good A/L management. The rules for accounting for the assets were divorced from what was going on with the liabilities, no matter what the current liquidity of the liabilities might be. Further, the *FAS 97* liabilities had to be held at fund value no matter what the circumstances.

Hence, the accountants, the actuaries, and the management of this life insurance company and others were upset with GAAP and those who had created it. It seemed that adequate thought had not been given to what GAAP ought to reflect. Clearly, there was a mismatch between GAAP and good A/L management.

Let's shift scenes in our minds now to a cold northeastern city with an office building filled with good-intentioned people and executives. The executives are overlooking a major city or a lake and asking themselves: "What's happening to my whole life product? What is the FASB trying to do to my whole life product? Do they have a conscious agenda?"

These individuals reflect that they're trying to sell products to customers who are taking a long-term view regarding their families' investments. The professionals know that their customers expect them to have a good investment mix. They know that their customers expect them to have a long-term investment horizon. And we know that the customers don't want to worry about their whole life insurance being marked to market.

But now we're told to account for some of the assets backing this product at some sort of fair value, such that this old way of investing may be smashed. There needs to be a balance. There needs to be an understanding between the various regulators and standard-setters about the fact that life insurance companies are financial intermediaries that are taking risks and spreading risk across many policyholders over time to help accrue wealth for their customers. Whole life is a product that does that. In fact, life insurance is unique in doing that. It has a special place in our country's economy from an asset-building point of view for the individual. There's much good that comes from whole life, fixed deferred annuities, and their variations.

Let's shift to Norwalk, Connecticut, where the FASB is located. The members of the board meet often with many, many people week after week after week. In the morning, they meet in their hearing room. On one particular morning about a year or two years ago, they met with representatives from the life insurance industry trade association, the American Council of Life Insurance (ACLI). This happened to be the third year in a row that they had met. Much conversation took place that morning, and various individuals went to great pains to explain the purposes and major roles of life insurance companies to the members and staff of the board.

When they broke for lunch, people sat at several tables. A number of small, intimate conversations took place, and, in particular, I recall a comment to this effect: "Oh, gosh, I'm sure glad you're not like the bankers; you're much more gentlemanly. And you're not meeting with us anywhere near as frequently as they

are. They're always here talking to us, making some good points, taking us to dinner, and even taking us on dinner cruises."

These individuals are serious in saying that they'd just as soon have some time for themselves at home, rather than spending four or five hours with bankers, but they feel it's their duty to know what's going on in various industries. It's not that there aren't substantial ideas, but there sure are a lot that don't have accounting merit.

What's wrong with this picture? This is sort of a left-handed compliment. We should take it as a challenge. We need to be much more involved with the FASB as individuals and groups of individuals to have more influence. The controllers who serve on the ACLI are quite busy and don't have as much time as it takes to perpetually and continually communicate with FASB. Certainly, more actuarial expertise and input is needed to persuade these individuals whom I would still say are possessed of the Jeffersonian inspiration I mentioned at the outset.

During the morning of that meeting, it was pointed out that the SEC wanted the FASB to pursue a fair-value project. As applied to life insurance, there was very little specificity. In point of fact, we were encouraged as representatives of individual companies to experiment with what we thought would constitute fair-value accounting. The way we would do that experimentation would be to provide an extra set of financials in the footnotes as to what we would view as the fair value of our results.

From an academic point of view, this is good, but from a trade association point of view, it doesn't fit well. Professionals who do have the academic point of view need to be more and more committed and serve up more and more examples to the FASB.

It's becoming increasingly obvious that this fair-value project is very important. It will give pleasure and displeasure to people who buy whole life insurance, especially displeasure if the investments suitable due to changes in accounting rules become of shorter and shorter duration. Hence, the investments will have much less opportunity to grow in value. Furthermore, if liabilities for annuities at fund value are not tied to assets, the duration again becomes shorter and shorter. There seems to be an unconscious drive, and I stress unconscious, to make everything a security and marked to market, if not daily, then periodically.

I want to emphasize that the boundaries of the field are not well defined by the FASB. At one of the meetings, a staff member half-jokingly and half-seriously, suggested to me that perhaps we, in the life insurance industry, ought to ask for a separate life insurance project. I saw some merit to that. I feel our needs are special. We need special attention, and there's a lot of truth in that kind of thinking. It's unlikely that we would get a separate project, but to ask for it would make the point with an exclamation point to the FASB.

Our point is that we believe there is a lot going on and that we don't want these good products to be made less valuable to the public because of changes in

accounting. In point of fact, we would like the accounting trued up so that all of our products are getting a fair deal.

As professionals, it is important for us not to think that the scope is being dictated thoughtfully, conscientiously, and fairly externally by some other standards-setting party, because that standards-setting party is extremely busy and doesn't have all the time in the world to give to our concerns. We need to do it. We need to go in there, and, if we want to amend and supersede previous pronouncements, this is the time to do it.

Who watched any of the U.S. Open Tennis on television? There was quite a battle going on during the commercial breaks. It showed life insurance competing with the mutual funds stock brokerage company, and commercial after commercial this battle was going on. On one side, the discount brokerage firm was making the point that it's hip to be hyperactive and to know about price earnings ratios, what stocks comprise the Dow Jones, the value of diversifying your portfolio, and being on top of things. This was exemplified by the glamorous, young tennis superstar and all-star Super Bowl champion tight end Shannon Sharpe touting the benefits of understanding their benefits.

In contrast, the other firm showed a calm, mature fellow, represented by actor John Mahoney (who plays Frasier's father in the sitcom), enjoying life moment by moment because he had his cash values backing him, had the assurance of guarantees of interest and principal, and knew that his wealth was not going to evaporate if the stock market should go down some afternoon. A major life insurance company was there to absorb the financial shocks on his behalf.

In the accounting debate, the fair-value debate is focusing on this key question: Do we want to continue to be able to provide a shock absorber to our consumers? Should life insurance continue to play this role?

There are two approaches. One is the steady growth and value approach that can come from fixed annuities, whole life, and universal life. The other is a zigzag, up and down (you don't know where it's going to end) approach that is more mutual fund or equity-based. Should life be a frenzy of checking on one's investment daily (if not more often), or should there be a mixture of one or the other? As professionals, we represent both sides, but, in particular, we're the only group of professionals who represent the first approach.

In summary, I want to suggest to you to be involved in this debate, to be supportive, lend energy, and money, if need be. FASB wants good accounting. I believe it, and they know they have to rely on you to get it. The result of your effort could be accounting you like and think is an indication of a life insurance company's fair value.

Ms. Deborah Whitmore: There has been a move toward fair-value accounting. Why is this? It's because a lot of different types of products are being offered by the various types of financial services institutions. The products are becoming more similar, and the institutions are merging.

The FASB, in effect, has reached a somewhat logical conclusion that, if you're selling the same product, the accounting for that product should be the same. That's part of what's been driving this movement toward greater fair-value accounting. We've alluded to the fact that *FAS 115* basically imposed fair-value accounting for securities. *FAS 121* deals with impairments and concludes that, when an impairment has occurred, then the revaluation of that asset is to fair value. And, of course, *FAS 133* is a major step on the road to fair-value accounting because now you basically are putting all derivatives on the balance sheet at fair value.

The SEC has been historically, at least in the last few years, a very strong advocate of fair-value accounting for financial instruments. The SEC has influenced and pushed the FASB's agenda. I'm going to talk about two particular FASB projects. First, the fair value of financial instruments project and, second, the present value concept statements project.

The fair-value project focuses on all financial instruments, how they should be valued, and/or whether or not they should be valued at fair value. The project includes in its scope all financial instruments and some nonfinancial instruments that are closely related, particularly intangibles such as core deposit intangibles, insurance intangibles, and servicing assets. The scope includes any promise to give cash or other financial instruments, including contracts that are not legally enforceable.

The issues that are to be addressed include: Which market price should be used for fair value? How do you estimate fair value based on expected cash flows? Do you measure instruments individually or as a group? Do you measure assets and liabilities differently? And how would you reflect the changes in fair value in the income statement? The FASB intends to issue a preliminary views document before the end of the year.

The FASB has tentatively concluded that all financial instruments should be measured at fair value. But the FASB also concluded that any liability or financial commitment that can be unilaterally terminated by one party without notice and without penalty is not a financial instrument. All gains and losses from changes in the fair value of the instruments will be reported in current earnings. This conclusion means that *FAS 133* will then preclude hedge accounting for all financial instrument hedges. The FASB has agreed that it will, in fact, consider whether or not an amendment to *FAS 133* will be necessary because of the conclusions in this project.

There is a refutable presumption that a quoted price is the best evidence of fair value. This can be rebutted under three circumstances. The first is that the quote is stale, and there is evidence that a transaction, if it were to occur, would not occur at that quoted price. For instance, if there has been a change in interest rates since the last transaction or something has happened to the company, that would change the value of the transaction.

Second, it can refuted if the bid/ask spread is much wider than would be expected, and there is evidence that either no transaction has occurred within that range or that a transaction that has occurred is outside of the bid/ask range. And, third, it can be refuted if there is evidence that a recent transaction that was the basis for the quote was, in fact, a forced transaction. For instance, there might be a liquidation or some other compulsion such that the parties were not executing the transaction at fair value. Remember, the definition of fair value assumes a willing buyer and willing seller who are both aware of the facts, and neither is under compulsion to act.

A recent quote on the instrument that's being measured is better evidence of value than a quote on a similar instrument, even when that similar instrument's quote is based on a much more actively traded market. When you don't have quotes for the instrument that you're measuring, you would use market quotes for similar instruments. Also, you can use market quotes for similar instruments that make up the component of a complex instrument that doesn't have its own quote.

If there are no observable market prices for either the item you're measuring or a similar item, you use acceptable valuation techniques. The valuation techniques and the assumptions used in those calculations should be widely accepted and represent the techniques and assumptions that drive observable market transactions. Finally, if you have no evidence of market values, then you come down to using discounted estimated cash flows.

At the June 1999 meeting, the FASB agreed that the guidance being developed in its present value project would serve as the basis for estimating fair values for insurance liabilities, effectively tying these two projects together. You would use estimated expected cash flows that had been adjusted for the amounts that others would demand in order to execute this transaction, that is, the market risk premium that would be demanded by another party willing to take on the uncertainties in those cash flows, as well as the credit standing of the insurer, discounted at a risk-free rate of interest.

The FASB concluded that A/Ls that are actually created by the insurance contract or within the insurance contract would determine the amount that would be expected and included within expected cash flows. You don't use noncontractual cash flows. They also concluded that that the payments made upon the termination of an insurance contract are actually liabilities and that payments for claims incurred within the contract period are liabilities. Premiums in and of themselves are not assets, but wherever an insurance contract brings together claims and premiums, for instance, in a term life contract, the contract creates an asset or liability that would be valued within the guidance of this proposed statement.

The FASB also discussed the question of DAC and reached no conclusion. We know DAC is part of the project, but at this point there's been no public discussion of whether or not the FASB will ultimately conclude that DAC represents an asset or not. It is planning to issue a preliminary views document by the end of the year.

Let's turn briefly to the present value concept statement. This statement was issued at the end of March 1999, and it's basically a revision of a document that the FASB had originally exposed, I think in July 1997. The comment period ended August 1, and the FASB has now begun the process of reviewing and discussing these comments and redeliberating the conclusions that had been reached in the exposure draft. This document is intended to provide general principles that would be used in determining amounts any time that you're actually using a present value measurement. It does not cover the question of when you should have a new or fresh-start basis of accounting. It simply says that, when you trigger a new basis, use present value techniques.

A concept statement, I should mention, doesn't actually establish new accounting policy. However, it is used as the basis for evaluating subsequent statements. It doesn't in and of itself create new accounting guidance, but there are significant implications for the guidance that could be developed in the future. As I mentioned earlier, we've already seen this tied together with the discussions that the FASB is having on the use of fair values for liabilities. The 1999 exposure draft made a couple of very significant changes in the 1997 exposure draft, one of the most significant of which was to eliminate the entity-specific concept of fair value. In entity-specific measurement, you use the cash flows specific to the use of that asset or liability by a particular entity, rather than the estimates of cash flows that would be used by a different market participant. Again, this is an area where the FASB expects to issue a final document in the very near term. The current target date is the first quarter of 2000.

Present values should be based on certain principles; that is, to the extent possible, estimated cash flows and interest rates should reflect the assumptions about all future events and uncertainties that would be considered by anyone entering into this transaction in an arm's-length fashion. The interest rate should reflect assumptions that are consistent with those inherent in the cash flows. That is, if the cash flows themselves have been reduced to consider the impact of uncertainties and defaults, for instance, you should be using a risk-free interest rate. Cash flows should be free from bias, both positive and negative. These should be neutral cash flows. Cash flows should reflect the various ranges of possible cash flows, and they should represent probability-rated estimates of the ranges of alternative cash flows.

The FASB has also concluded that there could be different issues in the measurement of liabilities compared to the measurement of assets. One of the other very significant changes from the 1997 exposure draft is the conclusion that the credit standing of the issuer would be considered at all times in valuing liabilities. This is probably one of the conclusions that we in this industry tend to find the most troublesome, because it tends to create counterintuitive results. The financially weaker entity, by being discounted at a higher rate, would show a lower liability and, consequently, greater equity than a financially stronger entity.

The proposal adopts the expected cash-flow approach, that is, the probability-weighted average of the range of possible cash-flow outcomes. The intention is to incorporate a very wide range of possible actions. This is something a number of

commenters have found somewhat troublesome, because it can lead to counterintuitive results, particularly when you're dealing with events that have very low probability of occurrence but extremely high cost when they do occur.

Marketplace participants are typically risk-averse. Therefore, the estimates of the discount rates that are used must consider the market risk premium that would be demanded by participants. When estimates of cash flows change, there are three basic approaches in use today.

One is the prospective approach. With this approach, you calculate a new effective interest rate starting with the carrying value that you have today and your new projections about all the future cash flows. You then start using the new yield.

A second approach that's used frequently is a retrospective approach, that is, knowing now what I know about all the cash flows that have occurred and believe will occur, what was the effective interest rate that I would have calculated at time zero? Then you calculate where you should be, and adjust to it.

The third approach is the catch-up approach. You use new cash flows, but the original discount rate. This is the approach that's used in *FAS 114*. The FASB, in fact, has concluded that the catch-up approach provides the most useful information, and that it is the approach that should be used to account for changes in estimates.

A number of alternatives exist in the accounting literature to determine how you set the discount rate, including the risk-free rate, the incremental transaction rate, average transactions, liability settlements, and various types of rates of associated assets and liabilities. This statement does not tell you which rate to use. However, it does offer some guidance that tends to eliminate the possibility of certain rates in certain circumstances.

The incremental borrowing rate is the cost of borrowing one new dollar. If you can borrow at exactly your incremental rate and discount it at that rate, then obviously you'd be at fair value. The FASB has concluded that the incremental borrowing rate is not appropriate unless there are contractual cash flows, but that also means that, in circumstances where there are contractual cash flows, the incremental borrowing rate may be appropriate.

The asset-earnings rate discounts the liability based on the earnings rate of the asset. The FASB has concluded that an asset rate is never appropriate for discounting the liability, even when that liability will be settled by the specific asset.

The effective settlement rate is the rate that the marketplace would demand in order to assume the liabilities. The FASB has concluded that this rate does not reflect the credit standing of the issuer and, therefore, is never an acceptable rate.

The implicit offsetting is the argument that says, because of the relationship of inflation and discounting, I don't really have to discount because inflation "averages it all out." The FASB's position is that interest rates and inflation rates

are related, but they only cancel each other out accidentally, and this is never an acceptable rate.

The risk-free rate would be used in circumstances where the cash flows have been adjusted for the variabilities and the risks that would be associated with them. According to the FASB, the average transaction rate is never acceptable because it values a new transaction based on embedded values that are effectively involved in the aggregate assets and liabilities.

What does this mean? Since concept statements don't really set new GAAP, it's almost impossible to say exactly what it means. There are some interesting implications. The guidance is quite inconsistent with what we do in *FAS 60* because, after all, *FAS 60* discounts liabilities using the asset rate. It also uses a single-point best estimate. *FAS 97 and 120* are also currently constructed such that they always use a single best-estimate cash flow. Where we go from here is one of the open questions.

I'm going to turn very briefly to what's going on internationally. The Insurance Committee met in March and concluded that, given the kinds of questions and issues that were open, it would be December 1999, at the earliest, before it could publicly issue any type of discussion memoranda.

There are nine voting members on the Insurance Committee. Two of them are from the U.S. In addition, Wayne Upton from the FASB attends the sessions and participates in the discussions, although he is not a voting member. The discussion documents floating around right now really don't have any final conclusions. However, *IAS 39*, which deals with the valuation of financial instruments, is amended to require that all financial instruments be valued at fair value, and the insurance project will follow along with that conclusion. Fair value does seem to solve a lot of other problems, because you no longer have to deal with questions that arise when you create accounting arbitrage opportunities.

Probably one of the more interesting aspects of this is that the NAIC has recently decided it is very interested in what is taking place within the international community and in the development of international accounting standards. It has formed a working group that is involved with monitoring the activities at the International Accounting Standards Committee and commenting on their documents as they expose them.

I say that is interesting because the NAIC has not shown any particular interest in monitoring what is taking place in the U.S. accounting standards.

Mr. Mark D. Buehrer: In all these proceedings, how much would a reinsurance quote essentially evolve into a market quote under the standards that have been defined by FASB. In other words, if I get a quote from my reinsurer for my mortality risk, can I then use that to set the market price of that mortality risk?

Mr. Robinson: I can't comment about what I think the FASB is going to do with that idea, because I don't follow the FASB that closely. I personally think that's a

very intriguing idea, and it has a lot of merit because, in essence, that's where liabilities do trade—in the reinsurance marketplace, where the price of that liability is. We probably should try to develop that further somehow.

Mr. Steven P. Miller: I have a question that I'd like Ms. Whitmore and Mr. Girard to respond to, and then I have a question about the discounted cash-flow project. The first question is, in August or September 1999, when General American's credit spread went from about 125 to about 800–900 basis points, did it show a profit since the assets didn't change and the value of the liabilities changed a great deal? The second question regards the discounted cash-flow project. Is it acceptable, as in option pricing models, to have different rates that you're using to discount different scenarios?

Ms. Whitmore: I'll take the second question first because I think it's the easiest. I think, given what we know, there could be different rates implied in all the various scenarios. There does seem to be an implication that, once you've done your weighting and everything, you could come up with a number that represents the amount that would be reported, but there's nothing right now that would seem to imply that you couldn't do different amounts.

As for the General American question, remember that no one today is doing fair-value accounting. This is not the existing accounting guidance, so it really would not be true to say that it reported a profit because of this. Certainly, you've pointed out one of the things that a lot of people find somewhat troublesome about the conclusion that the FASB has reached in the value of liabilities, which is that as a company becomes less credit-worthy, using the higher discount rate results in a lower liability. Another way of saying that is, when a company is extremely weak financially, part of what's happening is you're taking money away from the lenders and giving it to the equity.

Mr. Girard: To the second question, I think Deborah's answer is fine because it's consistent with asset pricing theory, where you have different interest rates for each scenario. As far as recording a profit, in the case of General American, it's hard to say if that happened because the assets also went down in value. That includes the franchise value, which is not reported on the balance sheet, but the appraised value of General American probably went down, even though it may have recorded a profit under market-value rules. But that's a good question.

Mr. McLaughlin: Let me make a quick comment. I think it's still an open question as to whether the credit standing of the entity which is issuing debt should be reflected. That's been the position of the FASB for several months, but prior to that it was equally adamant the opposite way—that it should not be reflected. I think the FASB is looking with an open mind at this issue.

With regard to the interest-rate question, the approach that is recommended by the FASB at this time, which I modestly point out is identical to what was in the paper that I wrote for the previous Fair-Value Symposium, is to use a risk-free rate which, in fact, would be the same for all scenarios. And then, under different scenarios, you would reflect the risks inherent in the cash flows.

From the Floor: I have a question for you in terms of calculating the value at a particular date, as opposed to disclosing our predictability or our accuracy in predicting future cash flows. Is the FASB looking at our ability to predict future cash flows and communicate that information through the financial statements? If I'm just reporting the market value or the fair value at the date, that gives me no information on the ability of those individuals, a company, or the analyst to predict future cash flows and how well they're able to do that.

Mr. McLaughlin: There are disclosure requirements currently that talk about disclosing earnings at risk, for example. Deborah will know the FASB statement specifically perhaps better than I do, but I think that's a supplemental piece of information that is very important but is already recognized. I think we could get better answers if we used multiple-scenario-type approaches in determining liabilities and their value under GAAP.

Mr. Hans J. Wagner: Deborah, I thought I heard you say that there was a dependency on a financial instrument not being cancellable by one party or the other unilaterally. Would that possibly include insurance contracts where the policyholder could quit paying premiums?

Ms. Whitmore: I don't think so. I'm not absolutely sure what all they're trying to include there, because, in effect, what they said was that an obligation where the parties can unilaterally cancel without notice and without penalty was included. I suspect that, for many insurance contracts, at least life insurance contracts, if there's a cash value, there frequently is a penalty from the insurance company if you were to cancel the policy. From the policyholder side, the insurance company has no ability to cancel it. I suspect that that's not what it's trying to include.

Mr. Joseph H. Tan: Deborah talked about the apparent paradox of, with a more credit risky company, when you discount it with a risk-adjusted rate, you get a lower liability. I think the problem is probably that we're separating the asset from the liability; that is, we're running contrary to the whole A/L management concept, that certain liabilities are inherently related. If you do what we actuaries are used to—that is, project the entire A/L cash flows and discount at future surplus—then, for a more risky company, you discount at the higher rate and the surplus would be lower. I think that would be more appropriate.

Ms. Whitmore: As I said before, I think that's one of the issues many people have raised with the FASB's proposal because it does seem very counterintuitive. The FASB is absolutely adamant that A/Ls are disconnected, that the value of that liability will have nothing to do with the assets that back it.

Mr. McLaughlin: There could be much more discussion on this topic. I'm sure we haven't resolved all issues here, but it's an interesting topic. I have a brief parenthetical comment. As actuaries we're very comfortable with fair value when we're doing actuarial appraisals. We have no trouble with that, but we have all kinds of problems with doing fair value when we measure the liabilities directly. And I think Luke's paper, and an earlier paper by Bob Reitano attempted, and I

think did, reconcile those two points of view. It's like prospective and retrospective formulas for reserves. They are reconcilable. In fact, you ought to get the same answer if you use the same assumptions in both cases. So, it seems to me we should not have as much discomfort perhaps with fair value as we do.