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International Accounting Standards—They're Closer Than You Think

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Summary: Panelists in this session discuss the current status of international accounting standards. Theoretical and practical issues are explored. Insight is also provided into the differences that may be expected between financial statements reported under IAS and under U.S. GAAP and how current issues under discussion at the FASB could narrow or eliminate them over time.

MS. EMMA MCWILLIAM: William Hines and I would like to welcome you to this session on International Accounting Standards—They're Closer Than You Think. Well, that depends on where you think they are, and how much you know about them or even are aware about them.

William Hines is a consulting actuary from Milliman. He has been closely following international accounting standards, and he has also published papers on single premium deferred annuity products and the impact of that on deferred value and also a range of articles in the *North American Actuarial Journal*. I'm a consulting actuary originally from the UK and on a two-year secondment to our New York office to work as the global project manager on international accounting standards.

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

What we'd like to do is provide a very quick background on the global environment and who are some of the key players, then discuss what the recent developments have been on International Accounting Standards (IAS) for insurance and the timetable so you can make your own assessment of whether they're closer than you think. We will then discuss items you really need to know in terms of the insurance framework and the draft statement of principles, which is a current working document expected to form the final basis of an insurance standard going forward. If you have been doing some product profit impact analysis testing of the new proposals, you will be very familiar with this. What we'd like to do at this stage, though, is just to give you the top 10 things that you need to know about the Draft Statement of Principles (DSOP) in order to equip everybody here before we go into some product illustrations. If you have your own top 10 or something that you'd like to add to it, please feel free to add them at the podium at the end, and we can make them the top 20. Then, finally, we'll address some lessons learned from undertaking some product impact studies. William will then go into some more detail around setting the market value margins and what FASB is doing and also the AAA on their fair value task forces.

What are the European requirements? All EU-listed companies for 2005 have to report under international accounting standards, which will include companies like AXA, AEGON, and ING. This is a whole international accounting standards accounting framework. The year 2005 sounds like that's still a couple of years off, so you may say why even worry? Well, if you're preparing for, let's say, the year-end position in 2005, and you need two years comparatives, that means you need the year-end position in 2004 as well, for your balance sheet comparative. You will also need the change in the profit and loss (P&L) to show for 2004, so you'd also need your year-end 2003 position. So when we say "are they closer than you think," 2003 doesn't sound so far away.

Thankfully, there has been quite a lot of interest from the insurance industry, certainly in Europe. Consequently, on the insurance side, there looks like there may be some delay to the insurance components of IAS, and 2005 may be pushed back a little to 2007, but more on that later. However, everything else on an insurer's balance sheet will need to be reported under IAS in 2005, even though the insurance contract items may be delayed.

The international capital markets are one of the main drivers behind the common international standards—which is due to the drive for cross-border flows. The International Accounting Standards Board (IASB) is a board responsible for preparing what are called IASs or IFRSs. IASs are the International Accounting Standards. The name for these has recently been changed to IFRS's—International Financial Reporting Standards. These form the standards and principles for the accounting framework. The IASB meets on a monthly basis. Insurance has been on the agenda since the end of 2001. They've been reviewing the draft statement of principles, which is the basis for the insurance contracts standard, and, in large part, they've been happy when they've written up the notes in their decision summaries with the DSOPs. There has been some contention over Chapter 3, though, which is whether there should be an entity-specific value or a fair-value approach (more on this later). The valuation approach is fair-value based and actually underpins the whole insurance standard itself. Understanding which one should apply or not apply is right at the heart of the insurance standard. It's one of the more key issues that the IASB is facing, along with whether renewal premiums and the treatment of guarantees and options should be included in contracts. These will be challenging areas for companies going forward.

The International Actuarial Association has undertaken a huge task of committing to draft the actuarial guidance around the insurance standard, and William will be talking more about what the IAA is doing. The final topic is industry responses on the insurance standards so far. In the UK, which is where I come from, the Association of British Insurance is quite happy with the framework, probably because they are familiar with some concepts since it's similar to embedded value, which is something that we're very familiar with in Europe. They appreciate that there are concerns over the implementation timetable, and so they seem to be comfortable with it perhaps being put back a bit. The American Council of Life Insurance (ACLI), which you're probably more familiar with, combined with the Japanese and some German insurers to pretty much trash the standards being put forward initially. But they moved on to recommend alternative valuation approaches, but it looks like fair-value accounting is something that is going to be there in the future, certainly for the international accounting standards framework. I guess we're going to be fighting it out with U.S. GAAP in the longer term, and where we end up ultimately is anyone's guess.

On the subject of recent developments, the draft statement of principles is available for everybody to view on the IASB website. Most of the chapters have been printed. They cover areas such as setting market value margins, projecting cash flows and setting assumptions, dealing with guarantees and options and so on. The only chapters I don't think that are published on the site are a couple of contentious ones around, say, performance-linked contracts and presentation/disclosures. There is a good status summary of the Board discussions that got posted in July and that does summarize the DSOPs. It's only about 5 to 10 pages, and it's a worthwhile read. Go to their website and pick it up.

There's now going to be a phased-in approach for insurance. Previously, insurance, just like any other standard, was going to come in for 2005, but the Board doesn't think it's realistic to expect companies to implement the insurance element by 2005. Thus, there's going to be a phased-in approach. Phase One, it appears, is going to allow local GAAP in the main report and accounts (what companies are currently reporting), but strips out anything that isn't consistent with IAS, which includes things like catastrophe reserves and claims equalization provisions. Then there would be some fair-value type disclosures, perhaps in the notes to the accounts, as well.

Peter Clark at the IASB (Project Manager for insurance) doesn't want to delay Phase Two too much, so the idea is to make the first phase as simple as possible so that they can move on quickly into phase two and get the insurance standard bedded down. What would they do in the notes in any fair-value type disclosures? I can't imagine that it's going to be anything more than allowing companies to continue to report on embedded value, which a lot of European insurers highly value in the market. They might, however, require them to put some minimum disclosure requirements around what they do report. Although, they may require some high-level fair-value disclosures very soon after 2005. So this is very much an interim solution for insurance contracts.

The other standard that you might want to follow, apart from the DSOP that covers insurance contracts, is IAS 39, which covers financial instruments and investment contracts. IAS 39 is important because those contracts that aren't considered to be insurance contracts would fall under IAS 39, and, at the moment, there are no temporary exceptions that would allow you to

delay that until 2007. So the reporting under IAS 39 will come in for 2005. At least that looks to be the case at the moment. It depends on whether the weight of the insurance market is able to push that back.

There has been a recent exposure draft brought out on amendments to IAS 39. IAS 39 is currently a mix of amortized cost and fair value for invested assets, depending on which category you're in: held to maturity, trade-in, or available for sale, similar to U.S. GAAP. However, the current standard for insurance liabilities only permits amortized cost to be used. The exposure draft is effectively changing that to allow companies the option to report under fair value with all unrealized gains going through income. That is an important move for insurers if they want to try to get everything on a consistent fair-value basis such that their assets and liabilities are reported on the same basis.

There's also an improvements project under way. The IASB is committed to ongoing improvement on all of the current standards that are in place. There's also a recent exposure draft that has been released on the first-time application of the standards because this is the first time that most people will be reporting under IAS.

The timetable for Phase Two, which is the release of a full insurance standard, is still to be determined, although it does look like the exposure draft will be coming out some time in the middle of 2003, and the final reporting standard might be released in 2004, although, this may very well be delayed.

What are the top 10 things you need to know about the draft statement of principles? The DSOP applies to insurance contracts, not insurance companies, so whomever is issuing the contract, whether it's a bank or an insurance company, will be on the same reporting framework. There's a single fair-valuation-type approach to valuing the contracts, which is a discounted cash-flow approach using best-estimate assumptions. We have some adjustments for risk and uncertainty in the cash flows or discount rate. It's a single approach, so there's now no difference between life or property/casualty contracts, or even long or short duration contracts, as you have under U.S. GAAP.

The two different types of valuation methods that are under discussion are the entity-specific value and the fair-value approach. Entity-specific value is more based on the company's own experience and own assumptions (that is, what it perceives its experience to be going forward on things such as mortality and expenses). Fair value is a more market-based approach. It's what the market thinks that your assumptions should be on things such as expenses and mortality. In practice, I'm not sure there's actually going to be that much difference because we don't have a mortality index table out there so that we know what the market's view of mortality is or can compare it to what the insurer's own view of mortality is. Perhaps expenses is an area that would differ between the company's own perception and the market's perception.

As I mentioned, there is not just best-estimate assumptions—you have to make adjustments for risk, such as the risk and uncertainty in the cash flows. The DSOP requires that you either make those in the cash flows as you project out your future premiums and claims, or you make the adjustments for risk in the discount rate by reduction to the discount rate, or you make them in both, provided you're not double counting. The discount rate that you have to use to value the liabilities is a risk-free rate, so it's not a AA rate or an A rate. It's actually the Treasury yield or the government rate, so that puts a lot of strain on certain contracts, especially asset-intensive products. I'll be showing you the impact of this later in some of the product studies.

The other main difference between entity-specific value and fair value is that under the DSOP, fair value reflects credit standing for claims-paying ability. Entity-specific value does not reflect credit standing, which means that rather than, say, discounting at the risk-free rate that we mentioned, you could potentially discount at a higher rate to reflect your credit standing. That's perhaps a bit counter-intuitive because, if a company gets downgraded for its claims-paying ability, then its surplus goes up. It might be a good way to manage your surplus; go out there and try and get yourself a downgrade, although you'd probably lose lots of business too! Others say that the policyholders should share in the risk. If your credit standing goes down, then your ability to meet your claims payment also goes down. Wayne Upton has written a good paper summarizing some of the arguments around reflecting credit standing when he was at the FASB, and that's definitely one of the concept papers that's worth having a look at.

Renewals can only be reflected going forward when there’s a valuable option to policyholders. What that means is under debate at the moment and the definition of renewals could end up somewhere different (for most life insurers this would be the inclusion of renewals on a best-estimate basis). Is it the economic value to policyholders? That looked like it may be coming out of the recent IASB meeting. Otherwise you can’t reflect your future premiums. Or is it as simple as a noneconomic value to a term insurance policyholder, such that it doesn’t have to undergo underwriting again? I’d say that would justify allowing for future premiums, and certainly, if they’re contractual premiums, they should be included.

In the extensive DSOP documentation, there’s one line on how to deal with guarantees and options, which is a huge area for insurance companies at the moment. The only words that are used are “option pricing techniques must be used.” This one line suggests a wider range of implications. It suggests going forward that we’re going to have stochastic modeling for guarantees and options, possibly people looking at things like replicating portfolios, going back and trying to price these guarantees and options that are embedded in insurance contracts in a way that is consistent with the financial markets. That approach depends on, I suppose, there being a deep liquid market out there, which there isn’t in insurance at the moment. Some guarantees and options will probably not be priced as aggressively as they should be.

The discount rate was the risk-free rate, so the valuation is independent of the asset back in the business, which is different from under-embedded value, where you look at the assets back in the business. Now, there’s a complete disconnect between the value placed on the liabilities and the assets supporting the business. If you’re a company invested in junk bonds or you’re a company that’s very prudently invested, it doesn’t matter for the purpose of the valuation. The value placed on your liabilities will be the same. Reinsurance is reported separately, so there’s no netting of reinsurance when you project your cash flows; you have to separately split out the effective reinsurance and report that separately as a separate line on your balance sheet.

Let’s look at some product illustrations. You all have your top 10 in your back pocket. You know what the draft statement of principles is about, and you compare it to U.S. GAAP. I would like to look at three contracts: a term insurance contract, a single premium deferred annuity, and

variable universal life. I want to illustrate some concepts out of the DSOP. What happens if you change valuation assumptions? What happens if you use a different discount rate, so that under the entity-specific value it didn't take into account credit standing? What happens if you now take into account credit standing and use something more like an AA rate? What happens also if there are economic shocks in the market or interest or equity growth shocks in the market? How does that flow through to your P&L or impact your earnings under IAS?

Let's first consider a simple term insurance product—level premium, nonrenewable, nonconvertible—with some adjustments for risk and uncertainty in there. We'll look at pre-tax earnings under (1) the U.S. regulatory base and U.S. statutory results, (2) U.S. GAAP, and (3) fair value. Under the U.S. regulatory base, there would be large losses due to the deficiency reserves that have to be set up at the outset. Fair value would show a slightly higher profit than U.S. GAAP because of the premiums we're pricing in this contract to allow for the stronger regulatory requirements under U.S. statutory. In the fair-value-based valuation approach, you project the full premium going forward. That full premium is effectively being put in there, which you don't do under *FAS 60* for U.S. GAAP.

Now, let's consider what happens if mortality changes. Under *FAS 60*, you lock into your assumptions, and you don't have to unlock them until there's a premium deficiency, and only then do you have to revise your assumptions. Under IAS, it's your best-estimate assumption as of the valuation date, so you're effectively unlocking throughout the contract, which means that if you're observing worse experience over time, then it's reasonable that you should be changing your assumption in the calculation of the fair value. If mortality experience is 10% worse than expected, then we get a slight dip in the earnings over time, as you would expect. Under fair value, if you've had three to four years of 10% worse experience than expected, and you expect this to continue, then you should revise your best-estimate assumption to reflect that worse experience. That leads to a big hit in year four because you effectively capitalized the full effect of the change in that year. So we see depressed earnings and then slightly higher earnings emerging after that because you have the release of the additional reserves that you stacked away.

Now let's take a single premium deferred annuity product. The company is rated AA, which will come in later when we consider the two different types of discount rates to use. The account value is a single premium plus credited interest, which is discretionary and subject to a minimum of 3% guarantee. The 3% guarantee actually came into play in this product when we were modeling it, and the policyholder gets penalized if he takes out his funds earlier. There's a decline in surrender charge throughout the term of the product for the first seven years. Once the surrender charges have worn off, then we've assumed that there's a lapse rate increase and that bumps up to 20%. Also, there are interest-sensitive lapses in this product, so when the product becomes uncompetitive to new money, then higher lapses are incurred in the product. Future interest rates are assumed to follow the implied forward curve, and this company is assuming a mixed investment strategy of one-, five-, and seven-year A-rated corporate bonds. It invested in A-rated corporate bonds because it slightly leveraged its credit standing. It's an AA-rated company, and it's passing some of that on to the policyholder through crediting the portfolio, but less the spread of 132 basis points.

Discounting at the risk-free rate, let's compare U.S. GAAP to IAS. The credit in the policyholder rate is much higher than the risk-free rate, so it's not surprising that we get this big loss at issue coming through under IAS, where we discount at the risk-free rate. It may be a concern for any companies that are reporting under U.S. GAAP that suddenly these products are going to be showing massive losses at issue. Thereafter, earnings are pretty smooth.

What happens if we take into account the credit standing of the company? We're assuming we can do that in line with its own AA credit standing. We assume here that the claims-paying ability rating is the same as the company's own credit standing of AA. Although, some other people may argue that the AA rate is actually too strong a thing to take into account because the credit standing is the insurer's ability to pay its claims, which would be a much higher rating than a AA rate where strong regulatory requirements exist and perhaps it is more like a risk-free rate. But let's just say for now that a company can use a AA rate to illustrate the point. The position is then much better because we're discounting at something much more akin to the credited rate.

We will continue to apply the AA discount rate in the next examples as we look at the impact of worsening lapse experience. Again, in this scenario, if we have 5% worse lapse experience over time, earnings are reduced. If we don't change the lapse assumptions, they're depressed from seven, eight, nine, and ten onward. Under IAS, the valuation actuary, if he knows that this is happening, would change the assumptions, and we would get a massive reduction as the capitalized effect of those changes in assumptions comes through. There's going to be a huge amount of pressure on actuaries going forward to reset assumptions because, you can start manipulating your earnings. Or you'll be putting off changing your assumptions because you want it to be smooth going forward. But there will also be pressure on you to change your assumptions if the assumptions become more favorable. We're just showing a worst-case scenario here. There's going to be pressure on you to change it so that those earnings come through in a year when the company is performing poorly.

Now consider the impact of a change in the spike lapses, which was 20%, assume this now bumps up to 50%. As a valuation actuary, if you have foresight that that's coming, and you reflect it, in year four instead, then you can greatly reduce the impact.

I'd just like to finish up with a single premium deferred annuity showing the impact of different investment strategies under IAS. We have the base scenario where we have the mix of one-, five- and seven-year bonds. For illustrative purposes, let's suppose that the company considers an alternative investment strategy where it is invested solely in seven-year bonds. The assets backing this are assumed to be at the market value placed on them, so the earnings are the same in both scenarios going forward, assuming there are no spikes or anything happening, which is what we're about to incur. Suppose the interest rates spike up by 3%. Not surprisingly, the assets that were invested in longer-end bonds cause us much greater depression in earnings in year three. Thus, the base scenario where we're invested in a mix of shorter durations has less impact.

Finally, let's look at a variable universal life contract. This is just to show the impact that we get if we get an equity shock scenario. We have a variable universal life product here, some assumptions listed and profit expected. The large profit at issue here is largely a function of the

pricing assumptions that we've used in this product, but this is really to illustrate the concept of what happens with an equity shock. Again, the base scenario: we're invested in equities earning 8% per annum, we have an equity shock in year four, and there's a large reduction in earnings.

What are the lessons that we pick up from doing these product illustrations? First, actual reported profits can be volatile. We saw that large changes in interest rates or movements in the equity market flow straight through to income in an IAS environment. Similarly, changes to experience and changes that you subsequently make to valuation assumptions end up leading to changes being capitalized and flowed through income in the year that you make them. There will be pressure put upon actuaries with respect to setting of assumptions as well. Gains or losses at issue are highly dependent on the product design, on the competitive positioning of the product, on the market value margins that you're reflecting in the product, and whether or not the IAS ultimately ends up with this entity-specific value approach or a fair-value approach because the discount rate is going to have a heavy influence over the gain or loss at issue, which is what we saw in a single premium deferred annuity contract.

MR. HINES: I probably will not touch too much on the current status of the IASB project, because I think Emma gave a pretty good update on that, but I will talk about the draft statement of principles, specifically the market value margins, some considerations to take into account, and some of the discussion that has been taking place with it.

Not all contracts that insurance entities issue are going to be considered insurance contracts for the purposes of IASB accounting. The ones that are considered insurance contracts will be valued under the proposed DSOP should it come to pass, but contracts that do not contain significant insurance risks (such as guaranteed investment contracts (GICs), deferred annuities that don't have any mortality guarantees, income guarantees, and immediate annuities without life contingencies) would be valued as financial instruments and would be valued under IAS 32 and IAS 39. IAS 32 talks about recognition and disclosure, and IAS 39 talks about measurement. Even though insurance contracts are nominally excluded from IAS 32 and IAS 39, there are a number of options embedded in insurance contracts that are covered by IAS 32 and IAS 39, and I'm going to talk about that a little bit as well.

I'm going to update you a little bit about where FASB stands on fair-value type activities in general. It is something that is happening, and we should be aware of it because it may have some impacts sooner than you think. I'm also going to talk a little bit about what the actuarial profession has been doing in response to the activities at the IASB, both here and at the IAA.

In terms of the current status, the key thing to take away is that there's a constraint imposed on phase one of the insurance project, which is not to delay phase two. They really want to move forward with the full insurance standard, but they recognize that they're not going to be able to do that by 2005, so they want to put in place as many things as they can that will not conflict and not delay the full insurance standard.

I want to talk specifically about the market value margins as it is contained in the draft statement of principles. The draft statement of principles does contain a proposal for using an asset liability framework for valuation, as opposed to a deferral matching concept, such as U.S. GAAP uses. The ideal under an asset/liability framework is to use market values. Market value of your assets and market value of your liabilities gives you a true picture of your current financial position. Unfortunately, for insurance contracts, you cannot do that because there is not an active deep liquid market where insurance contracts are traded, and this leads to you to some other techniques, such as present value of cash flows. Entity-specific value is one of those and fair value is another. Entity-specific value is the one that was proposed in the draft statement of principles, which I have come to understand as existing in two pieces. An entity-specific value of an insurance product would be the combination of your best-estimate liability—sort of a deterministic point estimate—plus a provision for risk, which has been termed market value margin.

I'm going to talk a little bit about what they are theoretically and practically, and how they might be reflected in evaluation, and how they might be derived because that is definitely an emerging area. I'll give you an example of different ways to reflect the market value margin and what implications that might have for emergence of income.

What are market value margins? The DSOP says that insurance liability should reflect risk and uncertainty by the inclusion of a market value margin. It's really the price for bearing uncertainty around the timing and the amount of the cash flows that are generated by the insurance contract. Not all risks that are created through the operation of insurance organizations are to be included in the market value margins. The DSOP, in its asset/liability framework, wants liabilities to be valued independent of the assets that are being held to back them. It states that investment or financial risk should be reflected on the asset side of the balance sheet and that insurance risk should be reflected on the liability side of the balance sheet. So the market value margin is to include only insurance risk. Now, the provision is supposed to be calibrated to the market, whatever market that may be. It's meant to be a provision for risk in the broad sense. It's meant to be both adverse and not so adverse (positive variations). Typically, if you're in actuarial evaluations, you have a provision for adverse deviation because you want to be conservative, but, in this case, they want it to be a provision for risk on both sides.

One of the things that can come into play here around the insurance risk is the degree of linking that you have in terms of passing on that risk to your policyholders. At one extreme, we have a contract whose terms are fully guaranteed, and, at the other extreme, we have fully experience-rated contracts, but typically you don't see them in the retail environment (participating or variable unit length contracts). They're typically more of the type you might see that might have a high degree of performance linking. So the risk to the insurer depends on the amount of performance linking that's going on.

Let's talk a little bit about the theory behind what the DSOP says about insurance risk. It identifies three classes of risk that the market value margin is meant to cover, and it has defined them as model risk, parameter risk, and process risk. Model risk is defined as being the risk that you've chosen the wrong underlying model for the insurance cash flows. For example, you assume it's a normal distribution but it's some other distribution. Parameter risk is the risk that you have chosen or estimated the wrong parameters for that underlying distribution.

Process risk is the risk of inevitable random statistical fluctuations from what you might have assumed, even if you've chosen the right model and even if you've estimated the correct parameters. Now the DSOP says that the market value margin should definitely cover model risk and parameter risk, but is not quite as clear on process risk and whether that should be included.

With the process risk, you get into the issue around diversifiable risk, which is a pretty interesting discussion considering insurance is meant to take advantage of diversification. Process risk is considered by the DSOP as a diversifiable risk. Theoretically, that's something that the market would not pay for. They also note that full diversification is more of a theoretical concept than a practical concept, that the inefficiency of markets, especially in insurance, and the cost of obtaining information make full diversification impractical. It's questioned whether market prices really include some component for diversifiable risk. But they do come to the conclusion that market prices do reflect diversifiable risk; therefore, market value margins (MVMs) should also reflect diversifiable risk. I think basically they're coming down to the fact that if you calibrate to the market, and you're using the market prices, your market value margin will include whatever is in those market prices. If you believe that the market prices include diversifiable risk, then your market value margin will include diversifiable risk.

There's a practical issue as well related to diversifiable risk because when you get into determining the unit of account or the block of business over which you're going to determine that market value margin, size matters. The DSOP says that the unit in account should be a book of insurance contracts that are subject to substantially the same risk. Now, how you interpret that is unclear. The same risk is substantially the same mortality risk. Does that mean that only life insurance contracts are put together in a block? Annuity contracts are subject to survival risk. Is that the flip side of mortality risk? Are they the same? They typically take the point of view that that is not the same, that you cannot combine annuity contracts and life insurance contracts with regard to mortality risk. So there are issues around how you determine how big of a block of business and what blocks of business you determine market value margins over.

One of the things that you may see if you do read the DSOP is that it doesn't say that the unit of account has to be the same for determining your assumptions for best-estimates and determining the market value margins. You may decide that it is important to determine a market value margin over a different set of products than where you're determining your best-estimates. Probably the clearest example of this is on reinsurance arrangements that may cover multiple blocks. Using multiple blocks will typically lower your risk and will impact your market-value margin, but you may have to go to a lower level to determine your best-estimates if the reinsurance contract covers multiple blocks of business.

There also may be some presentation issues. Emma mentioned that there are a couple of chapters of the DSOP that were never published. There was one on participating contracts or performance-linked contracts, but ones on presentation and disclosure were not published. They've been folded into other projects at the IASB around presentation and disclosure, but some previous versions of the DSOP talked about needing to disclose your best-estimate liability and your market-value margins separately. If that's the case, it has some implications around how you actually calculate your liabilities because you're going to need to be able to separate the two. It's something to consider going forward.

I talked a little bit about reflecting market-value margin. In a present value of cash flow-type valuation, you typically have two options reflecting a market value margin: changing the discount rate you use or adjusting the cash flows. Of course, the combination of the two is allowed. I think you might characterize *FAS 60* as that. They like to put provisions for risk in the discount rate and the cash flows under *FAS 60*.

Adjusting for risk or provisions in the discount rate is very common today. Conservative discount rates on statutory is one area. It's typically used in actuarial evaluations. You use best-estimate cash flows and discount at a risk-adjusted rate in order to come up with a risk-adjusted value today. People argue that it's easier to obtain a risk-adjusted rate from market data (cost of capital approach or some other way), and it is consistent with the cost-of-capital approach, which is fairly well understood in insurance circles and in actuarial circles. So there are a lot of people who are proponents of it. But the DSOP prefers that the risk margin be placed in the cash flows.

They feel it's more explicit and can identify specifically which cash flows are being adjusted for risk and how much they are being adjusted for risk. They also feel that the release of that risk margin over time mirrors more closely the release of risk that actually takes place.

Just a quick word on some issues around how you might derive market-value margins, given the fact that there are few, if any, market-related prices for insurance contracts. There have been a number of methods that have been talked about that might be used. The capital asset pricing model and related models are currently used in the capital markets to price or understand market prices for securities. Could there be some applications to insurance? Typically you need a whole series of co-variances between insurance cash flows to market prices and things like that or other market indicators, and that may be actually a pretty difficult one to do. Another one we just talked about is the cost of capital approach, which is well understood in a lot of areas, and goes hand in hand with some of the risk-based capital-type approaches that have been used historically. You may be able to think of things like confidence intervals that have been used around the setting of reserves and regulatory capital. You may be able to set the confidence interval for market value margins over your best-estimate liability.

Deflators is a concept that originated, I believe, in the UK around being able to determine market-consistent market-value margins with using an arbitrage-free type of a function. There's a pretty good paper out on the Institute of Actuaries website that discusses this in a lot of detail. There are some very good examples, and it may be worth taking a look at.

The fourth approach is prescribed ranges. This is sort of getting away from a market-based approach, but it is something that has been used in other areas. You may even think that there's some portion of this in the Canadian valuation framework, where they've tried to put ranges around the risk margins that they include in their valuations.

Actually, calibrations of market value margins are going to be difficult. You're still going to have to depend on market prices to calibrate even the models we were just discussing in the derivation. Reinsurance prices or merger and acquisition prices probably are not going to provide a good enough set of values for you to be able to calibrate margins to because, typically, each of

those transactions is heavily dependent on the situation that each party to the transaction is in, including tax situations. So it’s going to be difficult.

Emma touched a little bit on replicating portfolios. Some people feel that there’s a possibility for creating contracts with minimal insurance risk by creating replicating portfolios of contracts whose cash flows replicate the contract you’re trying to value and getting value for that pool of cash flows. That may have some application here. In my mind, it remains to be seen whether that really has some true application for contracts that have significant insurance risk.

I want to get to an example of a couple of different ways of reflecting market value margins and how that might have some implications. I’ve used a quick term insurance example, renewable after 10 years, and my assets are valued at amortized cost. The important thing here is trying to limit as many of the moving parts, but looking at two ways of reflecting market value margins.

In order to come up with a market value margin, I’ve done something called “calibrating it to the entry price.” It’s really for computational ease. What you often hear on entry price and exit price, in fair value terms, is that exit price is the price you would have to pay someone, a third party in an arm’s-length transaction, to take over your liabilities. Entry price is typically the price you have put into your own pricing, the price you use to get someone to buy your contract at issue. What I’ve done is calibrate a market value margin to the entry price by solving for the margin that gives you no gain or loss at issue. I’ve done this two ways. One is to increase the benefit cash flows (typically the mortality cash flow), and the other way is to hold the cash flows the same, but change the discount rate. Then I graph the emergence of income. The results are pretty significantly different.

The market value margin in the cash flow follows the mortality risk in the contract pretty closely, and it gives you a pretty level pattern of earnings for the first 10 years. It drops down after the renewal period and gives you a pretty level pattern thereafter. I’ve assumed some significant lapse at the renewal period, which is why it drops down.

The scale on the left-hand side of Chart 1 is actually monetary units, and the scale on the bottom is years, which I neglected to put on the slide. When you put the market value margin in the discount rate, you're not patterning after the mortality cash flows; you're patterning after the net cash flows from the contract, which has a significantly different pattern for a term insurance contract. You can see that it will have some significant front-ending of the profits on this type of product.

Which one would you rather have? It depends on the situation your company's in, but these are the types of choices you're going to have to reflect. While the DSOP does have a preference for reflecting the risk margin in your cash flows, it does not prohibit the reflection in discount rates. You may find it easier to put it in the discount rates or easier to determine a risk-adjusted discount rate.

Let's talk a little bit about the implications for market value margins. The attempt is a move to explicit risk provisions. Some type of market calibration will be necessary. How that's actually done is a key issue. At this point, I have to say that actuarial standards as to how you do that will be important, and I'll talk a little bit more about that later. How the MVM is reflected will clearly affect the emergence of income. If you move from one that's in the discount rate to one that's in the cash flows, you're going to have a significant change in the emergence of your income.

I want to talk about the application of IAS 32 and IAS 39 to noninsurance contracts. Insurance contracts are excluded from IAS 32 and IAS 39 in the preamble as it sits today and in the draft exposure that's out there. The way it's written is that IAS 32 and IAS 39 apply to contracts that transfer *primarily* financial risk, but it also applies to derivatives that are embedded in insurance contracts.

The insurance contract definition in IAS 32 and IAS 39 is important because it's not exactly the same as it is in the proposed DSOP. It does talk about insurance risk exposing an insurer to identified risks of loss, for events or circumstances occurring or discovered within a specified

period, but it uses the word “primarily” to separate out whether you’re transferring primarily insurance risk or primarily financial risk. The DSOP definition of insurance says that insurance contracts are ones that have significant insurance risks, or actually I think it does the reverse. It says financial contracts are contracts that do not have significant insurance risk. Now, “significant” and “primarily,” in my mind, are not the same thing. Sometime between now and when a full insurance standard is in place, there may be confusion, about which contracts fit the definition of insurance and which ones don’t. I think this is a key item to be addressed in the short term, and it will be interesting to see how the IASB actually handles it. But as it’s written now, you could conceivably end up with contracts that have significant insurance risks—but that are not primarily insurance risk-related—fitting the definition and needing to be valued under IAS 32 and IAS 39.

Let’s talk a little bit about the valuation. IAS 32 and IAS 39, as they’re written today, were written from the point of view of banking products, with not a lot of thought given to insurance contracts. In fact, they were excluded from the definition, and so financial liabilities are given very little attention in IAS 32 and IAS 39. They do talk about the initial valuation of financial liabilities, and it says that they should be valued at fair value and include or take the recognition of the acquisition expenses involved. Subsequent valuation of them is a little less clear, but financial liabilities are typically valued at amortized cost under IAS 32 and IAS 39. What does amortized costs mean for an insurance contract? It’s a question to be vetted, definitely. The new exposure draft does give the option to choose any financial asset or financial liability and classify them as essentially “held for trading securities.” If you did that with a financial liability, you would have to value them at fair value. Thus, that is an option that’s coming in.

I talked a little bit about the embedded derivatives. If you have an embedded option and an embedded derivative in a financial instrument, and that embedded derivative is not closely related to the underlying host contract, it must be separately identified and separately fair valued in your financial statement. There has been a lot of discussion about this in actuarial circles. We’ve been talking at the IAA about what type of options actually fit this definition and about what’s not closely related to the underlying host contract. We’ve come up with three categories that we think might fit this definition: guaranteed minimum death benefits in variable or unit length contracts, guaranteed annuitization options, and minimum interest rate guarantees. What

percentage of the contracts that U.S. companies write contain one of those options? It's fairly large. If IAS 32 and IAS 39 were to come into play here, or for affiliates of European companies where this will come into play, it is going to be a significant issue of separating out these options and valuing them. It's definitely something we need to be aware of. We are looking for additional guidance from the IASB around whether these are the types of things that they envision.

I think it's important to be aware of what's happening at FASB. FASB has had a fair value project on their agenda for a number of years. While they're moving slowly and they realize it's a long-term thing, their objective is to put financial instruments at fair value in the financial statements. They have decided not to make a wholesale change to the valuation framework and redo everything that they already have on the books, but they've decided, as they make changes to each of the standards going forward and implement new standards, they will be taking fair value into account. Some of the results of their project include *FAS 107*, disclosures about fair value; *FAS 115*; and *FAS 133*, which we're probably more familiar with around accounting for financial instruments and derivatives. It's important to know that this is continuing because they've made a number of decisions already that will come into play. Some of them include a hierarchy of how they're going to determine fair value. There's a good write-up about the hierarchy in their recent work on the business combinations project. The issue of your own credit risk is a contentious issue, particularly in actuarial circles. Is it appropriate to reflect your own credit rating in the valuation of your own liabilities? FASB has been pretty clear that they think own credit risks should be reflected in a fair value framework.

You probably haven't heard a lot about the fair value project recently because FASB had suspended work on the project earlier this year in favor of dedicating resources to what they felt were higher priority projects. But I understand that they've decided to reactivate the project this month and are going to be moving forward. I think the first thing they're looking at is a revision of *FAS 107*, but more should be heard about that.

FASB and the IASB have been trying to work in parallel. I know they had a joint meeting in Connecticut to talk about projects that they have in common. When one puts a project on its agenda, they decided that the other one would put it on its agenda. They’ve talked about short-term initiatives for trying to converge some of the accounting standards that both of them have where there are conflicting provisions. The insurance project is not one of them. In the shorter term, they’re going to be dealing with some other issues, mostly around the asset side. I think it’s important to understand that, in the long run, both FASB and the IASB will be heading towards a fair valuation framework, and it will have some impact on the insurance industry.

Let me close my remarks with a couple of comments about the actuarial profession and what has been happening there. The American Academy of Actuaries had a fair value task force back in the mid-90’s, and they’ve had one more recently. They produced a white paper in 1995 that described various fair valuation techniques that could possibly be used in the insurance framework. Just this week, the Academy released a fair value monograph from the current fair value working group that describes some principles and methods that could be considered in the fair valuation framework. It should be pointed out that both of these are not specific to the proposals of the IASB or of FASB. They’re general in nature in fair valuation of insurance liabilities, but I encourage all of you to take a look at it. It’s available on the Academy website. The Fair-Value Working Group also has been providing some comments to the IASB on a couple of chapters of the DSOP. I think those are on the Academy website as well.

Finally, I have some comments about the International Actuarial Association. I am a member of a working party that is charged with developing a proposal for international actuarial standards for actuaries to use when they are working under IASB standards when they come to pass. This work was formally charged in March of 2002. We’ve gone through a process of identifying a number of issues that we think are relevant to the development of actuarial standards under the IASB framework. We’re creating discussion papers for each of these issues. The discussion papers are being posted on the IAA website (www.actuary.org), and I encourage all of you to take a look at them. We set up discussion forums for each of the issues, and if you’re interested at all, you should take a look at them and comment. We anticipate using the issues papers and

discussions and comments that we get back as a basis for developing a proposal for actuarial standards to be used when working on their IASB standards. I encourage each of you to take a look at it.

FROM THE FLOOR: I heard the year 2007 mentioned. We know that 2005 is the European Union's commitment, but what is the significance of 2007? Also, if an insurance standard comes into play in 2007, will it still be at an entity-specific level or will it be on fair value?

MS. MCWILLIAM: The 2007 deadline is more a best-estimate date that the insurance contract standard would be applied from if it doesn't come in for 2005. The IASB doesn't want to delay it too much, so 2007 seems more reasonable. The IASB has undertaken a number of field tests out to clients, talking to them about the practical issues around implementing a fair value framework, and it looks like two to three years might be a sensible time-frame for companies to implement such a framework. Therefore, 2007 seems achievable.

In terms of entity-specific value or fair value, the current draft statement of principles sets out the relationship with IAS 39 on it and says if that moves to a fair-value approach, then they would prefer it to be fair value in the DSOP; however, if it doesn't move to a fair-value approach, then they suggest it would be an entity-specific value. So there is a relationship there related to where IAS 39 ultimately ends up. In practice, there's probably not too much difference between the models that are going to need to be built. They're both discounted cash-flow models, and it's more the assumptions that are in them. Do you want to add anything William?

MR. HINES: No, I'd agree. Where it ultimately ends up is unclear.

MS. MCWILLIAM: Sam is very close to the IAS, and I think that he may have something else to add.

MR. SAM GUTTERMAN: I have just a note in terms of timetable. The staff has unofficially estimated the phase one exposure draft in April of 2003, with a final version in the second quarter of 2004. That's the 2005 date. For the phase two, they estimate a third quarter 2003

publication of an exposure draft, with a fourth quarter 2004 publication or official adoption. They haven't met too many dates of their expectations. They've had a pretty large margin for risk and uncertainty, but not sufficient enough in these circumstances. That's what some people think might lead to the 2007 for phase two.

MS. MCWILLIAM: Thank you.

MR. HINES: That deadline seems pretty aggressive anyway.

MS. MCWILLIAM: There are mixed views on whether it is aggressive, though. Certainly some companies in the market have an official position that they don't think that they can achieve it, but then when you talk to them one on one, they say, "Well, actually if we have to do this, we could get our act together and get it implemented." So I think there's one view of trying to push back the timetable, and then there's another view of what companies can achieve if they really try. Some of the smaller and medium players would be significantly challenged by the proposals, however.

MR. PETER L. SMITH: I'm curious, if in looking at setting market value margins, if people have looked at what's happening on the risk management side. There's a book by a person named Marcelo Cruz. I think it's "Operational Risk Hedging and Pricing," and in it he shows that for market risk and for credit risk, you have complete markets, and you can construct risk-neutral valuations. However, for operational risk, markets are incomplete, and it seems to me that this is a correct analogy for most insurance risk and the pricing of insurance risk. These techniques that he develops in his book for operational risk are traditional kinds of valuation approaches that actuaries are familiar with, like fitting historical parameters. Perhaps there are extreme value methods for looking at what the associated margins or risk levels would be. Are people in IASB looking at those kinds of approaches to pricing market value?

MR. HINES: The IASB is not interested in providing too much guidance around the particular development of market value margins or other parameters like that, mainly because they want to be in the business of creating a principles-based framework. They would like to leave it up to others to develop guidance. Part of the reason is they don't think there is any one right answer that would be applicable to every situation. They feel that, depending on the risks involved in the contract and the types of business you're writing, you're going to want to have different solutions as to how you come up with those market-value margins.

MR. SMITH: So these kinds of methods would not be disallowed?

MR. HINES: I don't think they're going to disallow any of these methods. They're going to say these are some you might consider, but it's not going to be an exhaustive list.

MS. MCWILLIAM: In response to there being a link to the risk management side, I believe there definitely is a very strong link. Companies are looking at putting in their IAS framework, or certainly an economic value framework, but, based on those principles, they are trying to tie up closely with the risks in IAS as well.

MR. RICHARD J. LAURIA: I had a question about fixed assets like real estate. Where does the IAS stand on it, and is this going to get eventually applied? If we're moving towards a market value balance sheet, are we moving towards something where everything gets marked to market so that, say, Wal-Mart has to mark their inventory to market? I'm just curious where the IAS is going with this in the long run because it sounds to me like there's going to be difficulty comparing financial companies to nonfinancial companies.

MS. MCWILLIAM: Certainly we have IAS 39 in this mixture of amortized costs and fair value. The categories selected by companies for their assets is an issue, although it's thought that a lot of the banks will be on amortized costs. The insurance parts of those companies might be more in favor of being on a fair value. It's completely inconsistent, and it doesn't actually achieve the comparability that the IAS is trying to achieve, in my mind at least.

MR. HINES: What they're trying to move to, I think, is fair value for financial instruments. A financial instrument is essentially something where you're promising to pay cash or settle a contract in the future with a similar instrument. Things like real estate inventory don't typically fit those types of definitions. There is an IAS framework for real estate, for other goods like that. I don't believe it is on fair value, and I'm not clear that that's where they're headed.

MS. MCWILLIAM: The other concern, of course, is with this potential 2007 deadline. If companies are reporting their assets under amortized costs and then they want to move over in 2007 to have their assets on fair value to match their liabilities, are they actually allowed to move that over? Will they be allowed to restate their assets to be in line with their liabilities? Otherwise, there's going to be a big disconnect there. Some of you had your hands up earlier about having been involved in looking at the impact of IAS. Are there any challenges that you'd like to share with the group in your work or what you perceive to be some of the challenges?

MR. HENRY W. SIEGEL: I just want to point out to all the insurance companies in the room that your results will now be a function, if this is adopted, of what your rating is versus your competitors. For instance, say New York Life has a AAA rating, and I am discounting at a AAA rate. Perhaps I'm with another company that has a B rating, and I'm discounting at a B rating. If we're offering the same exact product, the company with the B rating will show much better financial results initially than New York Life will because they'll be discounting at a much higher rate. Therefore, the liabilities will be lower. If that doesn't scare all of you, you're not paying attention.

MR. HINES: That's assuming you can sell it for the same price.

MR. SIEGEL: That's the funny thing about the market. There is no such thing as market value margins, but there is a market value price. Unfortunately, I believe the consumer doesn't tend to distinguish, in terms of who they'll buy from, between the B-rated company and the AAA-rated company. They tend to look at what the price is, and, frankly, I think there's a subtle assumption that the guarantee association will pick it up if the company fails.

CHART 1
Emergence of Income Term Insurance

