



AMERICAN ACADEMY of ACTUARIES

September 1, 2009

International Accounting Standards Board (IASB)

www.iasb.org (electronic submission)

Re: *Credit Risk in Liability Measurement*

The Financial Reporting Committee of the American Academy of Actuaries¹ is pleased to respond to the International Accounting Standards Board (IASB) on its discussion paper and accompanying staff paper on *Credit Risk in Liability Measurement*, dated June 2009. A special subgroup² consisting of actuaries specializing in life insurance, non-life insurance, and pensions, have arrived at a consensus document outlining our views, which is attached for your consideration.

The key questions being addressed in the discussion paper are the following: Should the value of liabilities recognized by an enterprise and presented in its public financial statements be discounted for the credit risk inherent in the liability, and should changes in credit risk be reflected in earnings? In summary, as to the latter question our unequivocal answer is no: changes in credit risk of the liability should have no effect on reported earnings. As to the valuation of liabilities, we support using a discount rate that does not reflect default risk (“default free”). However, in the valuation of certain types of liabilities, reflecting a discount for credit standing (including the use of market settlement values or trading prices where available) may also provide useful information regarding the capital position of the entity. This is particularly true for those values that are materially different from the default-free value and obtainable at a cost that is not disproportionate to the benefit received.

Sincerely yours,

Rowen B. Bell

Chairperson, Financial Reporting Committee

American Academy of Actuaries

¹ The American Academy of Actuaries (“Academy”) is a 16,000-member professional association whose mission is to serve the public on behalf of the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

² The subgroup was chaired by Phil Heckman, MAAA, ACAS. Other members of the subgroup include: Steve Alpert, MAAA, FSA, MSPA, FCA, EA; Stacey Day, MAAA, FSA, FCA, EA; Bob Eramo, MAAA, ACAS; Chad Hueffmeier, MAAA, FSA, EA; Matt Lantz, MAAA, FSA; Steve Malerich, MAAA, FSA; Lenny Reback, MAAA, FSA; Doug Robbins, MAAA, FSA; Larry Rubin, MAAA, FSA; Marc Slutzky, MAAA, FSA.

Remarks on Valuation

Where fair value accounting is appropriate or required by other accounting standards, it can help provide market discipline and transparency. However, the same instrument may trade in more than one market; and it is essential that the instrument be valued in the appropriate market (or that instruments with similar characteristics be used as valuation inputs) if the accounting scheme is to achieve its purpose.

Any open financial instrument or contractual relationship can be viewed both as an asset of the promisee and as a liability of the promisor. The beneficiary pays a consideration and receives in return a promise of performance, the asset. The consideration for this asset is priced in the market at a discount to the default-free value in recognition of factors that include the promisor's less-than-perfect credit standing in respect to the particular obligation. Provision of performance guaranty, such as surety, or a pledge of collateral, or an increase in seniority will increase the market value of the obligation up to, but not beyond the default-free value. Regardless of the presence of such credit enhancements, it should be recognized that they do not typically transfer or extinguish the obligations, unless the original transaction(s) that give rise to the obligations are modified by appropriate binding authority, such as a legal contract.

As a liability, the value of the obligation can be viewed as having two parts: the value of the obligation as asset, and a virtual surety provided by the corporate owners as a contribution from equity. The value of this virtual surety is just the difference of the default-free value and the credit-discounted (asset) value of the obligation and is provided in support of the enterprise's standing as a going concern. Its importance was recognized by Chasteen and Ransom (*Accounting Horizons*, June 2007). These amounts aggregated over the firm add up to the insolvency put, or default option discussed by Doherty and Garven (*Journal of Finance* 41, 1986) and based on the work of Merton (*Journal of Finance* 29, 1975). This represents the current value of the owner's option to default with impunity on the firm's obligations and to put the firm to the creditors.

As fair value accounting is currently implemented, this virtual surety is neither quantified nor recognized. The intention of satisfying one's obligations is taken as sufficient for a going concern without full quantification of these obligations. On the contrary, there are several important business reasons why it may be relevant to value and disclose this number:

First, the capital attributable to the discount for the probability of default (credit quality) represents the commitment of equity value to finance the performance of the entity's obligations. Thus it is important that the commitment of capital should be made known to management and owners and disclosed to the public.

Second, in a sense, the committed capital is on loan from the owners to the enterprise; and it should be expected to earn at least the cost of capital. Thus management's plans for use of the funds received from counterparties would be expected to encompass sufficient growth in equity to compensate the owners for the use of the funds. Otherwise corporate borrowing or other assumption of liability would not be attractive to capital market participants. Such planning and evaluation will tend to be unreliable unless the amount committed is known.

Third, this committed capital is not risk capital but merely the amount required to complete the funding of the liability on a default-free basis. Many liabilities are, unlike simple debt, not certain as to amount and timing. The risk that such liabilities may exceed the full-funding amount is absorbed by the uncommitted equity capital. Thus it should not be supposed that full funding absolves a company from holding additional capital.

Fourth, the amount of discount, in comparison to the default-free value, provides information as to how effectively the company is marketing its products and promises. Further, this comparison provides management information needed to enforce pricing discipline during cyclical downturns. Important performance measures, such as return on equity can prove to be unreliable in the absence of this information.

In light of this, we believe that both numbers — the liability discounted for credit standing and the liability default-free — provide valuable and decision-useful information. We maintain, therefore, that the default-free value should be available to users of financial statements. We maintain further that if the credit-discounted values are materially different from the default-free values and obtainable without disproportionate cost, they too should be made available to users of financial statements.

Both valuations can provide useful and necessary information to management, investors, current and potential, customers, and regulators. They are both potentially relevant to responsible decision making.

Accounting for Flows

Under the current framework, the familiar accounting flows emerge as the result of changes in valuation, with possible questions as to the treatment of liabilities at first recognition. This is a reversal of the historical-cost accounting paradigm, wherein valuations emerge from the deferral and matching of flows. To underscore the difference, we include here a brief account of the flows that emerge from the dual valuation scheme we are suggesting, using an algebraic presentation to clarify our intentions. The elements of a full-information reporting system are illustrated in the following table along with the important quantities derivable from them.

Elements of a Full-Information Reporting System

Basis	Assets		Liabilities		
	Previous	Current	Previous	During Period	Current
Credit Discounted	A_0	A_1	L^D_0	λ^D_1	L^D_1
Default-free			L^F_0	λ^F_1	L^F_1
	Current Income Flows		Current Equity		
Credit Discounted	$I^D_1 = A_1 - A_0 - L^D_1 + L^D_0$		$E^D_1 = A_1 - L^D_1$		
Default-free	$I^F_1 = A_1 - A_0 - L^F_1 + L^F_0$		$E^F_1 = A_1 - L^F_1$		
Chasteen/Ransom	$I^{CR}_1 = I^F_1 + \lambda^F_1 - \lambda^D_1$				
Default Option	$D_1 = E^D_1 - E^F_1 = L^F_1 - L^D_1$				

I_1^D is the measure of income that emerges under the current definition of fair value. It includes the effect of changes in credit standing; i.e., credit downgrade implies an income as liabilities are devalued. The corresponding equity measure does not recognize capital charges in support of liabilities.

I_1^F is the measure of income that emerges if all liabilities are recorded at the default-free value. This measure imposes income penalties at first recognition. The corresponding equity measure makes full recognition of capital charges for supplemental funding.

I_1^{CR} is the income definition proposed by Chasteen and Ransom and requires specific identification of liabilities that arise between valuation dates. They propose that the full default-free liability should be recorded at first recognition, but that only the proceeds (credit-discounted value) should pass through income while the difference is recorded as a direct charge to equity. This device avoids an earnings penalty on assuming liability and recognizes the fact that a firm's credit standing reflects decisions taken at the ownership level, with which management must make do. Subsequent changes in the default-free value would pass through income, while changes in the default option would be charged directly against equity to balance the reduction in equity due to recording the default-free liability. Note that both quantities flow eventually to default-free equity, albeit through different paths, so that default-free liability valuations and equity are unchanged. Besides preventing the penalty to income on first recognition of the liability this approach ensures that changes in credit standing do not affect income, either on update or on repurchase.

We recommend that IASB adopt an approach to accounting for flows that does not report changes in value due to credit risk through income. The Chasteen and Ransom approach to accounting for flows is one such method.

Practical Considerations

There are practical problems concerning default-free valuation of risky liabilities. This is because risky obligations are often assumed at a premium to the expected value discounted at default-free rates. Further, in markets where the ultimate cost of the liability is very uncertain, the risk premium is not always positive and is almost always entangled with other elements that drive the cost of capital. Commercial casualty insurance is a case in point. The problem is sparsely explored because work in financial economics has concentrated on asset pricing. There are also outstanding issues as to what rates are proper for use in default-free valuation in an international context and how to match liquidity characteristics with the liability in question. It is likely that more research is needed on these questions.

Likewise, problems stem from credit-discounted valuation for some types of liabilities and for some types of entities. Some small insurance companies, for instance, have no formal financial strength rating to guide valuation. Other insurance liabilities – property/casualty loss reserves again – have historically been valued at or near default-free without reference to credit standing. There is some question whether discounting such liabilities for credit standing is meaningful. In any case these and other insurance related topics are at the forefront of actuarial and financial research, and we feel that allowance should be made for incorporating new knowledge into accounting standards as it develops.

Closing Remarks

We have addressed two main issues: the need to know liabilities valued on both credit-discounted and default-free bases for capital management reasons, and the need to exclude the effect of credit changes

from reported income. We thank the IASB for the opportunity to participate in this discourse and hope that these comments may contribute to a resolution of these issues.

Some areas of financial reporting are not currently subject to fair value standards. One such, an area of great importance to the American Academy of Actuaries, is pensions. For this reason we have attached an Appendix which treats the subject of pension valuation and its differences from other areas.

Our answers below to the IASB's questions will be provisional, proposing practical stopgaps where existing research does not provide an answer. All references are to the unsecured portion of the liability unless indicated otherwise

Questions for Respondents

Question 1

When a liability is first recognised, should its measurement (a) always, (b) sometimes or (c) never incorporate the price of credit risk inherent in the liability? Why?

(a) If the answer is 'sometimes', in what cases should the initial measurement exclude the price of the credit risk inherent in the liability?

(b) If the answer is 'never':

(i) what interest rate should be used in the measurement?

(ii) what should be done with the difference between the computed amount and cash proceeds (if any)?

Answer 1

Valuations on both a default-free basis and a basis that reflects the credit standing of the liability (assuming that such valuations are both materially different and not disproportionately costly to obtain) would both provide decision-useful information.

The discounted numbers give information on the management of the business, information needed by investors. Management creates value by investing funds above its cost to obtain them. In assessing the quality of management, investors should take into account how well the company creates value. Regulatory focus is on ensuring adequate funds are available to pay claims. Investors also need solvency information because it affects the firm's franchise. We believe that both the default-free valuation and liability valuation reflecting credit quality provide decision useful information. We believe that both should be available to users of financial statements.

The default-free valuation of debt obligations should be made at prescribed default-free rates suitable for international stakeholders, with liquidity characteristics similar to the liability. For contingent obligations, the default-free rate should be used in the absence of better information, with possible adjustment for risk premium.

The value of liabilities reflecting their inherent credit risk would have to be estimated using a net credit spread appropriate to the degree of risk. Fair value principles, as outlined in IAS 39³, could be used to determine the appropriate discount rate.

As discussed above, if the amount recognized on the balance sheet is the default-free value, the difference between the default-free and discounted values should be charged directly against equity

³For example, as recently proposed for determining the discount rate under IAS 19, *Employee Benefits*

through other comprehensive income. If the amount recognized on the balance sheet includes the credit spread inherent in the liability, there is no difference between the computed amount and the cash proceeds.

Question 2

Should current measurements following initial recognition (a) always, (b) sometimes or (c) never incorporate the price of credit risk inherent in the liability? Why? If the answer is ‘sometimes’, in what cases should subsequent current measurements exclude the price of the credit risk inherent in the liability?

Answer 2

As discussed above, for many types of liabilities, both quantities may provide decision-useful information. Current measurements should be based on the same principles as initial measurement.

In many cases, a single approach to handling credit risk (including or excluding) is not sufficient to meet the needs of all the principal users of financial statements—regulators, owners, and creditors, current and prospective. In other cases, an example being casualty insurance or self-insurance loss reserves, own credit standing has never been considered in valuation; and requiring it would serve no useful purpose.

In general:

- Current and prospective owners have an interest in knowing the value of liabilities when measured discounted for the price of credit risk.
- Current and prospective creditors and regulators have an interest in knowing the value of liabilities when measured on a default-free basis.
- All parties have an interest in knowing the difference between the two measures, although in some situations the benefits available from quantifying that difference may not justify the costs involved in developing the quantification.

Question 3

How should the amount of a change in market interest rates attributable to the price of the credit risk inherent in the liability be determined?

Answer 3

We are not aware of any procedure for doing this reliably and meaningfully. This is one reason for our recommendation to value and disclose on both bases where practicable.

In general, the market value of tradable debt (“credit spread”) is driven by at least four primary factors:

- Default free rates (real and nominal),
- Collateralization (*e.g.*, sinking funds),
- Credit quality of the one making the promise, and
- Other market factors (*e.g.*, liquidity preference, supply and demand factors)

The price of “credit risk” is generally inseparable from the other elements inherent in the credit spread. However, total changes in credit spread are easily determined from the valuation rules outlined in the answers to questions 1 and 2.

The price an investor is willing to pay in consideration of an obligation is discounted in proportion to the perceived risks and preferences. Upgrades in seniority, pledges of collateral, provision of surety, or other forms of credit enhancement all have the effect of reducing the discount or increasing the value of the obligation to the investor. The highest possible value of the obligation as asset is based on default-free rates.

Question 4

The paper describes three categories of approaches to liability measurement and credit standing. Which of the approaches do you prefer, and why? Are there other alternatives that have not been identified.

Answer 4

For reasons discussed above, the approach outlined in paragraph 62(b) most closely matches our analysis:

“Measure all liabilities using the risk-free rate of interest and expected future cash flows, excluding any expectations about default. Any difference between the resulting amount and cash proceeds (if any) should be charged to equity and amortised over the life of the liability.”

However, we would add the additional provision that the difference between default-free and credit-discounted rate should only be measured and reported at first recognition and at update in situations where customary valuation methods provide such information.

Appendix: Pensions

Background

Pension* and other postretirement liabilities arise from a company’s commitment to provide benefits in the future to plan participants, typically in the form of cash paid directly to the participant, or by paying a third-party for medical and similar expenses. The ability of the employer to alter that commitment varies depending upon the particular arrangement.

The dynamics of pension liabilities differ from many other types of liabilities, wherein the entity takes on a liability in conjunction with the receipt of cash, which may or may not involve recognition of income through profit and loss (P&L). Consider a simple loan under current accounting rules: the company’s assets are increased by the amount of cash borrowed, and there is a corresponding liability set up which declines as the loan is paid off. There is no effect on the company’s current P&L due to this loan (future P&L may be affected by the interest paid on the loan). The implicit discount rate of the liability is based on the company’s own credit standing as reflected in the cash proceeds of the loan, and reflecting the loan payoff schedule.

Similarly, an insurance company that sells a simple single premium whole life insurance policy will also increase the company’s cash assets, and create a liability to reflect its obligation to the policyholder.

* References to pension liabilities also include postretirement and postemployment liabilities that are calculated by discounting future expected cash flows using an assumed discount rate.

Some amount will generally be recognized through P&L to reflect the company's excess of revenue over its expenses related to the policy. Although not as obvious, there is also an implicit discount rate for this liability which reflects the (net) cash proceeds and the expected amount and timing of the death benefits.

Current Accounting Measurements

IAS 19 views pension benefits as a form of deferred compensation. Employees provide services to the company in exchange for a combination of cash in the form of current salary, and benefits. For certain of those benefits, actual cash payment by the company may not be required until many years in the future. Therefore, the company must set up a liability for the value of benefits expected to be paid to, or on behalf of, plan participants in the future. The liability increases as additional benefits are earned, and decreases as benefits are paid out.

But since there are no initial "cash proceeds", the determination of the appropriate rate to discount future cash flows is not obvious. Current IFRS and US GAAP accounting relies upon discount rates based on the yields of "high quality" corporate bonds. Per paragraph 79 of IAS 19, "the discount rate reflects the time value of money but not the actuarial or investment risk. Furthermore, the discount rate does not reflect the entity-specific credit risk borne by the entity's creditors, nor does it reflect the risk that future experience may differ from actuarial assumptions." We also note that pension obligations are not measured or reported at fair value under either IFRS or US GAAP. Both accounting standards also operate on a "net" basis, such that any liability represents the net of the employer's liability for future benefits, offset by assets set aside to pay those benefits. Assets generally must be segregated, restricted and not subject to the claims of other creditors.

In addition, current IFRS accounting generally does not require recognition of the company's unfunded pension liabilities on the balance sheet. Our responses in these comments are intended only to address the general questions posed. Please refer to the Academy's Pension Accounting Committee [response](#) to the IASB's request for comments on *Preliminary Views on Amendments to IAS 19* for a more detailed discussion of specific issues related to any changes in measurement of, and accounting for, pension liabilities.

Liability Measurement

Like many liabilities, pension liabilities are determined by discounting a series of cash flows expected to be paid over time. Unlike most other liabilities, there are many more uncertainties concerning both the amount and the timing of those payments. These uncertainties and risks mean that even using a relatively narrow range of reasonable assumptions (regarding retirement age, salary increases, turnover, mortality experience, etc.) will often produce a wide range of potential outcomes. Nevertheless, a single measurement has been required for financial statement reporting that reflects a single set of outcomes regarding amount and timing of payments, as well as an implicit discount rate to determine the liability based on its present value.