30 Cannon Street, London EC4M 6XH, United Kingdom
Tel: +44 (0)20 7246 6410 Fax: +44 (0)20 7246 6411
E-mail: iasb@iasb.org Website: www.iasb.org

International Accounting Standards Board

INFORMATION FOR OBSERVERS

Board Meeting: **December 2008, London**

Project: **Fair Value Measurement**

Subject: **Measuring the effect of credit standing (Agenda paper 3H)**

Introduction

1. At the June Board meeting, I said that I wasn't sure that we had the right answer on credit standing. Some Board members consider that heresy, especially from the guy who pushed so hard to get credit standing into FASB Concepts Statement No 7. I obviously need to explain. This paper is the first of two for discussion at the Board's December 2008 meeting. My focus here is on our analysis of fair value and whether we have an internally consistent model. I think we have some problems when transfer of a liability is constrained by law, regulation, or perhaps, contract.

2. To begin, let me lay down a couple of principles. Pretty simple stuff, but necessary:

    a. There is very little argument against including credit standing in the *initial* measurement of a liability. The argument is about incorporating changes in

credit standing or changes in credit spread (with no change in standing) in subsequent measurements.

b. We don't measure liabilities directly. Instead, we measure the value of an asset basket that is somehow associated with the liability. The simplest basket is the amount of cash that a market participant is willing to exchange to hold the entity's liability as the participant's asset.

   The point is important because standard setters will continue to receive comments about the interaction of asset and liability measurements. Of course we use assets to measure liabilities. The price of an obligation to deliver 10 shares of, say, EDF is equal to the price of those 10 shares (ignoring the effect of credit standing) – € 45.545 per share as I write this paragraph. The proper question is "which assets?"

c. Default risk is nothing more than the possibility that an entity will not pay a liability when due. (Distinctions between principal and interest payment are irrelevant here.) The possibility is distributed between the total contractual cash flow and zero.

d. The risk premium added to interest rates is based on a notion of portfolio. No rate of interest can compensate the individual who holds only one debt instrument if the borrower fails to pay. The amount of premium is based on expectations from a portfolio of loans, so that the average realized from the portfolio is sufficient to justify the uncertainty.

Markets and Liabilities

3. There are three markets (or asset baskets) that measure an exchange or extinguishment price of a liability. Our standards, notably IAS 39, seem to permit or require all three, depending on the circumstances:

   a. Asset – The price of the liability, measured by its price as another entity's asset.

b. Settlement – The price of the liability, measured by the price of assets (usually cash) required to extinguish the liability in a current transaction with the counterparty.

c. Transfer – The price of the liability, measured by the price of assets (usually cash) required to induce another entity to accept the liability as its own.

4. The demand floor measurement in paragraph 49 of IAS 39 is notionally consistent with settlement, but it excludes the effects of credit standing. Consider the following simple example.

    a. Entity X has 100 of financial assets and 100 of equity.

    b. It borrows 1,000, and the note has a demand feature exercisable at any time.

    c. The management of X then invests 1,100 in financial instruments and elects the fair value option under IAS 39 for the instruments.

    d. The value of those instruments declines to 800.

    e. Entity X's balance sheet now shows:

Entity X Statement of Financial Position dr. (cr.)	
Investments	800
Liabilities	(1,000)
Shareholders' deficit	200

5. If the measurement reflected credit standing, the liabilities would be 800 (less than the minimum in paragraph 49) and Shareholders deficit would be 0.

6. Paragraph 15 of FASB Statement No 157 takes a clear transfer position.

> A fair value measurement assumes that the liability is *transferred to a market participant at the measurement date (the liability to the counterparty continues; it is not settled)* and that the nonperformance risk relating to that liability is the same before and after its transfer. Nonperformance risk refers to the risk that the obligation will not be fulfilled and affects the value at which the liability is transferred.

> Therefore, the fair value of the liability shall reflect the nonperformance risk relating to that liability. Nonperformance risk includes but may not be limited to the reporting entity's own credit risk. The reporting entity shall consider the effect of its credit risk (credit standing) on the fair value of the liability in all periods in which the liability is measured at fair value. That effect may differ depending on the liability, for example, whether the liability is an obligation to deliver cash (a financial liability) or an obligation to deliver goods or services (a nonfinancial liability), and the terms of credit enhancements related to the liability, if any. [Emphasis added.]

7. As a practical matter, the FASB didn't have much choice in the selection of markets. The price of a transfer to a third party is the only measurement that can be applied to all liabilities. Many recognized liabilities, for example, asset retirement obligations, have no counterparty and are not the assets of specific entities.

8. In some situations, the three markets for liabilities all produce the same result. Returning to the obligation to deliver 10 shares of EDF, the asset, settlement, and transfer prices must all be the same. They might diverge if the contract was different, but in our simple case they cannot.

When Markets Diverge – Unit of Account

9. The EDF example is a rare one, sort of the financial equivalent of monatomic gold. The liability is so simple that the three possible market participants are compelled by arbitrage to agree about its price. I suspect that some Board members' thinking is conditioned by that equilibrium, and that they would argue that our measurement should always be seeking a price at which the three markets are in equilibrium.

10. The moment we add complexities to the environment in which a liability exists, we encounter questions about the market and some of the choices just described disappear. For example, what if the transfer market is regulated or has other barriers to entry? What if the settlement amount includes penalties for early payoff? In the paragraphs that follow I examine a couple of possibilities. The first example seems at first far too easy, but it brings out some important points.

Example – Deposit Insurance

11. Entity X is a bank in a jurisdiction that has a depositor insurance program. Each depositor is insured against any loss on deposits to a maximum of 100,000. Each bank must purchase insurance from the government at a rate of 1% on outstanding deposits. The 1% is a one-time fee, charged on "new" deposits. Uninsured entities are not permitted to accept deposits. If the credit rating on an entity's uninsured debt falls below **A**, it pays an additional 1% insurance, but can continue to accept deposits. It is not permitted to purchase deposits from other institutions as long as its debt remains below **A**.

12. Transfers of deposits among insured entities take place, usually at a discount of 8% from the demand amount. The deposit insurance does not transfer with the deposits. The 8% discount includes the 1% of insurance that an assuming bank must purchase and a 9% adjustment to reflect the expected runoff of the liability over 48 months.

13. Entity X's uninsured debt is rated **BB** and has insured deposits totaling 50 million, the amount that depositors could withdraw today. What is the fair value of its deposit base?

    a. Settlement with the depositors – 50 million;

    b. Transfer price to a permitted institution – 46 million (50 plus insurance of .5 less runoff discount of 4.5);

    c. Transfer price to an institution of comparable credit standing – 46.5 million (50 plus insurance of 1 less runoff discount of 4.5), or

    d. The price of 90-day **BB** rated commercial paper with a demand feature, say 48 million.[1]

14. FASB Concepts Statement No 7 doesn't provide a direct answer to this question. In an October 11, 1999 staff memorandum, the FASB staff (me) observed:

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[1] The numbers in this case are a bit counterintuitive. That's because the various adjustments are computed on different basis. The insurance amount is assessed on the par value of deposits. The run-off discount is computed to produce an annual return of about 6% over the 48-month expected life of the deposits.

> There is little question that collateral, purchased credit insurance, covenants, and similar features affect the credit standing of a particular liability. An entity may have liabilities with several different credit qualities. Each should be measured on its individual characteristics. However, some might argue that government deposit insurance and similar programs are different than other features of a liability. Arguably, government insurance and guarantees are an asset of the entity that holds the liability as an asset. While some guarantees, like bank deposit insurance, may be "purchased" by the entity, others are funded through general tax revenues.
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> In the staff's view, the question returns to our basic objective—assets required to settle with the holder or a third party of comparable credit quality. Given that objective, "who owns the guarantee?" is an irrelevant question. The holder of a guaranteed deposit would not reasonably settle for a credit-discounted amount. If the bank folds, the funds will be available within 24 hours. Any third party that is legally eligible to assume the bank's obligation will accede to the bank's position and again, would not reasonably settle for a credit-discounted amount.
>
> The staff recommends that a final Concepts Statement be clarified that "the credit standing of the entity obligated to pay" refers to credit standing applicable to the liability being measured. As such, it should incorporate the effects of all terms, collateral, and existing guarantees that would affect the amount required to settle.

15. We didn't have the vocabulary then, but we were arguing that the only available market was in a transfer to an eligible institution – item 13(b).

16. Quoting again from Paragraph 15 of FASB Statement 157:

> A fair value measurement assumes that the liability is transferred to a market participant at the measurement date (the liability to the counterparty continues; it is not settled) and that the nonperformance risk relating to that liability is the same before and after its transfer. Nonperformance risk refers to the risk that the obligation will not be fulfilled and affects the value at which the liability is transferred. Therefore, the fair value of the liability shall reflect the nonperformance risk relating to that liability. Nonperformance risk includes but may not be limited to the reporting entity's own credit risk. The reporting entity shall consider the effect of its credit risk (credit standing) on the fair value of the liability in all periods in which the liability is measured at fair value. *That effect may differ depending on the liability, for example, whether the liability is an obligation to deliver cash (a financial liability) or an obligation to deliver goods or services (a nonfinancial liability), and the terms of credit enhancements related to the liability, if any.* [Emphasis added.]

17. That language alone doesn't bring us much closer to a conclusion on the deposit case.

Analysis – Deposit Case

18. ***View One, demand amount.*** This is the view taken in paragraph 49 of IAS 39 and long espoused by Jim Leisenring. Those who favour View One hold that the fair value measurement should be 50 (13a above), and reason that:

    a. The unit of account is the individual deposit. Attempts to characterize the unit of account as the portfolio combine and confuse the liability with other factors, like customer intangibles. Others might also argue that the consideration between the entity and a depositor– 50 in this case – is the best representation of a transaction between a willing buyer and a willing seller.

    b. The relevant market participant is the customer and the relevant market is between the customer and the entity. Transactions in that market are priced at the face amount of the deposit.

    c. Because the deposits are insured, the credit standing of the instrument derives from the credit standing of the insurance. This example assumes that the government's guarantee carries no default risk of its own. The discontinuity pointed out in paragraph 4 of this paper is possible, but not in this case.

    d. View One may be inconsistent with FAS 157, but that is a failing in FAS 157 and not in the reasoning for View One.

19. ***View Two – transfer to eligible institution.*** This is the view taken over the years by senior members of the IASB and FASB staff (at least some of them). Those who favour View Two hold that the fair value measurement should be 46 (16b above) and reason that:

    a. The unit of account is the portfolio of accounts. Market participants – permitted institutions – transact in portfolios of accounts. That is different from the market in which the deposit originated. One of the things that makes it different is that the unit of transaction, and of account, explicitly values factors that were not valued in recording the originating transaction.

b. The relevant market participant is an entity that can legally acquire the portfolio and the relevant market is between the entity and a permitted (**A** or better credit rating) entity. The participants described in paragraphs 13(c) and 13(d) are irrelevant. The first describes a transaction that is illegal and cannot, therefore, be even a hypothetical market. The second describes an instrument that is not the same as the customer deposit. Granted, if the entity's deposit base contracted, it might turn to commercial paper financing, although that well is dry in the current market. It would not be indifferent to the choice, though. The commercial paper described carries an effective annual interest rate of 16%.

c. Because the deposits are insured, the credit standing of the instrument derives from the credit standing of the insurance. This example assumes that the government's guarantee carries no default risk of its own. (Same conclusion as in View One.)

d. In making the measurement, the insurance cost is a "transportation" cost rather than a "transaction" cost.

e. View Two is the only available choice in this case that is consistent with the exit value notions in FAS 157.

20. In 2006, the IASB settled on something like View 2, but without mentioning how to evaluate credit standing. The December 2006 Update reads:

> The Board also discussed the fair value measurement of recognised liabilities with a demand feature. A demand feature allows the holder of the instrument to demand repayment of the instrument, with little or no notice. Examples of such instruments include debt instruments that are puttable to the issuer at the option of the instrument holder and some types of bank deposit liabilities. The Board tentatively decided that such existing liabilities should be measured on the basis of the expected timing of cash outflows, with such amounts discounted at the interest rate used by market participants at the measurement date to price equivalent borrowings of similar risk and maturity. Incremental costs that market participants would expect to incur (such as incremental servicing or other costs) should also be taken into account.

21. It seems to me that there is a conflict in the requirements of FAS 157 and, perhaps, our thinking about credit standing. FAS 157, paragraph 15 requires "that the nonperformance risk relating to that liability is the same before and after its transfer." By including this

requirement, FAS 157 defines the market we look to for measuring a liability, and there seems to be a presumption the reporting entity has the ability to access that market (as stated in paragraph 24 of SFAS 157). Furthermore, paragraph 12 of FAS 157 describes the highest and best use of assets as, "physically possible, legally permissible, and financially feasible at the measurement date." Admittedly, paragraph 12 refers to assets (and the fair value measurement project team has said that the highest and best use concept is not relevant to liabilities; see Agenda Paper 3C), but I doubt that the guidance on liabilities contemplates measurements based on assumptions that are impossible, illegal, and financially infeasible. The deposit case points to a conflict in the guidance. In some cases, it is not possible to hypothesize a market in which both credit risk is unchanged and the hypothetical transaction is legal. That creates two possible lines of analysis, as explored in the cases that follow.

Case – Regulated Market

22. This case makes a couple of changes from the Deposit Case. The deposits are not insured, but only regulated entities can accept deposits directly or through transfer. An entity cannot accept deposits from new customers or acquire deposits from others if its credit standing falls below **A**. As in the Deposit Case, Entity X's unsecured debt is graded **BB**. Transfers of deposits to eligible deposits take place at a discount of 9% from face amount. If a transfer to a **BB** rated entity were permitted, assume the discount would be 10% to reflect the difference in ratings. Is the fair value of deposits with a face amount of 50:

    a. View One – 45.5, representing the amount required to transfer the liabilities to an entity allowed to accept the transfer, or

    b. View Two – 45, representing the amount required to transfer the liabilities to another entity rated **BB**?

23. What we have here, I think, is an argument over the market, the unit of account, and the marketplace participant. Those who hold View One argue that the only legal marketplace is a transfer to a permitted (credit grade **A**) entity. Those who hold View Two argue that 45.5 is the price of two things – the underlying liability and a credit upgrade needed to

make the liability transferable. They point to paragraph 81 of Concepts Statement 7, which describes a similar example as follows:

> Based on the admittedly simple case outlined above, the fair value of Entity A's liability should be approximately $356 (the present value of $500 in 3 years at 12 percent). The $420 price demanded by Entity C includes the *fair value of Entity A's liability ($356) plus the price of an upgrade in the credit quality of the liability*. There may be situations in which an entity might pay an additional amount to induce others to enter into a settlement transaction. Those cases are analogous to the purchase of a credit guarantee and, like the purchase of a guarantee, the additional amount represents a separate transaction rather than an element in the fair value of the entity's original liability. [Emphasis added.]

24. On reflection, I've come to conclude that this analysis in Concepts Statement 7 is incomplete. I builds on two unstated assumptions:

    a. There are no legal or contractual limitations on the entity's ability to transfer its liability and

    b. The creditor (who must consent to the transfer) would be indifferent between the current borrower and any other borrower with similar credit standing, all other things being equal.

25. In the regulated market, neither assumption is valid. The market is constrained and the creditor is not allowed to be indifferent. Entity X must transact with market participants that carry an A rating. We could create a hypothetical market by taking the price in the regulated market by taking the regulated price and adjusting. The result would be a price for the liability standing alone, but doing so would be contrary to Statement 157's notion of principal market, as described in paragraph 8:

> A fair value measurement assumes that the transaction to sell the asset or transfer the liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability. The principal market is the market in which the reporting entity would sell the asset or transfer the liability with the greatest volume and level of activity for the asset or liability. The most advantageous market is the market in which the reporting entity would sell the asset or transfer the liability with the price that maximizes the amount that would be received for the asset or minimizes the amount that would be paid to transfer the liability, considering

> transaction costs in the respective market(s). In either case, the principal (or most advantageous) market (and thus, market participants) should be considered from the perspective of the reporting entity, thereby allowing for differences between and among entities with different activities. *If there is a principal market for the asset or liability, the fair value measurement shall represent the price in that market (whether that price is directly observable or otherwise determined using a valuation technique), even if the price in a different market is potentially more advantageous at the measurement date*. [Emphasis added.]

26. Another way to consider this question is to ask whether, in the regulated market, the credit rating is the liability analogue to transportation cost of an asset. Statement 157 reasons that the cost of bringing an asset, say, agricultural produce, from the field to the market is an element of the asset's fair value. Wheat with a market price of 5 per bushel has a fair value on the farm of 4, reflecting the transportation cost required to bring it to the market. Just as there is no market for wheat "on the farm," there is no market for a **BB**-rated deposit liability. The credit upgrade required to enter the market is necessary to "transport" the liability from where it is (in the hands of the debtor) to the market.

27. I have to acknowledge here that some who have read drafts of this paper find the comparison to transportation costs difficult. After all, they reason, transportation costs *decrease* the value of an asset in its present location relative to what it might otherwise be. Paragraph 26 suggests that the liability analogue would *increase* the value of a liability. However, that is the nature of transportation costs. To borrow a phrase from the conceptual framework team, the need to transport is a "bad thing." Transportation costs decrease the value of an asset and thus decrease net assets. The upgrade increases the value of a liability and has a similar affect – a decrease in net assets.

28. Another example might be the costs that an entity must incur to convert an asset from its current condition to a form in which it can be sold. A particular asset might not meet environmental requirements in its current form and cannot legally be sold in its current condition. The fair value of the entity's asset is the value of an environmentally correct asset, reduced by the costs that the entity must incur to make its asset saleable.

29. There remains the difficult distinction between transportation costs and transaction costs. Statement 157 offers the following definition of transaction costs:

> Incremental direct costs to sell the asset or transfer the liability refer to those costs that result directly from and are essential to that transaction and that would not have

been incurred by the reporting entity had the decision to sell the asset (or transfer the liability) not been made (similar to cost to sell, as defined in t paragraph 35 of FASB Statement No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets).

30. The basis for conclusions includes the following observation:

> In response to related issues raised by some respondents, the Board clarified that transaction costs are different from transportation costs, that is, the costs that would be incurred to transport the asset or liability to (or from) its principal (or most advantageous) market. This Statement clarifies that if location is an attribute of the asset or liability (for example, a commodity), the price in the principal (or most advantageous) market used to measure the fair value of the asset or liability should be adjusted for those costs.

Further Cases

31. We could continue to construct cases that move away from the Deposit Case and the Regulated Market Case. Each would move closer to the situation contemplated in Concepts Statement 7 and described in paragraph 25 above. For example, what if there is no regulation, but the contract creating the liability forbids transfer to any entity with a rating less than **A**? However, each additional case would build on the analysis already developed and, more important, my conclusions.

Recommendation

32. I propose that the IASB Exposure Draft include two changes from Statement 157:

    a. The credit standing of a liability is an attribute of the liability.

    b. Regulatory restrictions that require liabilities to meet certain requirements are attributes of the market in which a liability can be transferred. The idea that a market must be “legally permissible” applies equally to markets for liabilities as for markets for assets.