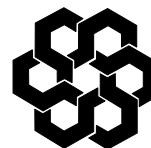




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**For Discussion at the May 5, 2009 IASB Education  
Session and the May 6, 2009 FASB Education  
Session**

## INTRODUCTION

1. At the joint Board meeting on March 24, 2009, the two Boards tentatively agreed to consider at a future meeting three potential measurement methods for financial instruments, namely:
  - a. Fair value - defined as an exit price in FASB Statement No. 157, *Fair Value Measurements*, and as will be defined in the forthcoming IASB exposure draft on fair value measurements,
  - b. Another remeasurement method; and
  - c. Amortized cost.

## PURPOSE OF THIS MEMORANDUM

2. The purpose of this memorandum is to present the remeasurement model (herein referred to as the current value measurement method) to the Board.

## CURRENT VALUE MEASUREMENT METHOD

3. The current value measurement method is based on the notion of calculating a value for a financial asset or financial liability based on the present value of expected future cash flows of the financial asset or financial liability. The value calculated by this method is not based on an exchange price but instead is based on the cash flows in the instrument that an entity would realize through the collection or payment of the cash flows with the counterparty to the instrument. The purpose of this method is to provide an alternative to fair value for certain instruments in certain situations and not to replace fair value in all situations.

4. Paragraph 5e<sup>1</sup> of FASB Statement of Concepts No. 7, *Using Cash Flow Information and Present Value in Accounting Measurements*, states that “Present (or discounted) value of future cash flows” is a measurement method that is used in financial reporting. The present value method uses the traditional/discount rate adjusted method or the expected cash flow (or expected present value) method to ascertain the fair value of assets and liabilities for which the amount and timing of future cash flows can be reliably determined. These methods incorporate the uncertainty about the amount and timing of cash flows by appropriately adjusting any of the probabilities, discount rates or future cash flows.
5. Investors, creditors and other users of financial statements need information that enables them to assess the amount, timing, and uncertainty of future cash flows. The current value measurement method would provide users with information about the amount, timing, and uncertainty of future cash flows in certain circumstances and is a remeasurement method that the Boards may want to consider in valuing financial instruments in certain situations. The current dislocated markets environment has highlighted the need for an alternative method that would provide users with information about the amount, timing, and uncertainty of future cash flows of financial instruments in certain situations without the negatives associated with fair value. For example, the exit notion associated with fair value results in values being reported in the balance sheet that may not be reflective of the amount of cash an entity would realize in a financial asset held for a time period exceeding the current dislocated market environment. This method also addresses the shortcomings of the amortized cost model by providing information in current financial reports about both the cash flows and value changes of the financial instrument as well as eliminating the need for impairment and loan loss reserve guidance.

## **MEASUREMENT OBJECTIVE**

6. Paragraph 25 of Concepts Statement 7 states that the only objective of present value, when used in accounting measurements at initial recognition and fresh-start measurements, is to estimate fair value. Present value should attempt to capture elements that taken together would comprise a market price if one existed, that is, fair value.
7. However, it should be noted that fair value was not defined as an exit price when Concepts Statement 7 was written. When Concepts Statement 7 was written, (prior to Statement 157), fair value was determined in numerous ways, including the notion of entry price as well as (some could argue) the same manner as the current value measurement method. The current value measurement method would apply the general concepts of present value as reflected in both Concepts Statement 7 and Statement 157 to certain financial instruments but does not have fair value as currently defined as its objective. The objective of the method is to calculate a value

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<sup>1</sup> FASB Statement of Concepts No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises (CON 5)*, paragraph 67 identifies the five measurement attributes of assets (and liabilities) that are used in practice as: (a) Historical cost (historical proceeds), (b) Current cost, (c) Current market value, (d) Net realizable (settlement) value and (e) Present (or discounted) value of future cash flows.

that would reflect the present value of expected cash flows of a financial asset or financial liability for which the entity could maximize its cash flows.

8. It also should be noted that the purpose is not to create a new measurement objective or change the measurement objective for the present value technique described in Concepts Statement 7, but instead to use the process in that concepts statement to calculate a value for financial instruments in certain situations in periods subsequent to initial measurement.
9. Paragraph 39 of Concepts Statement 7 describes the following elements that together capture the economic differences between various assets and liabilities:
  - a. An estimate of future cash flow, or in more complex cases, series of future cash flows at different times (i.e., deterministic or probability weighted cash flows)
  - b. Expectations about possible variations in the amount and timing of those cash flows (i.e., possible cash flow scenarios)
  - c. The time value of money, represented by the risk-free rate of interest (i.e., discounting future cash flows to present)
  - d. The price for bearing the uncertainty inherent in the asset or liability (i.e., risk margins)
  - e. Other, sometimes unidentifiable, factors such as illiquidity risk and market imperfections.
10. The current value measurement method discussed in this paper incorporates elements (a) through (d) but does not take into account element (e) from paragraph 39. For certain financial instruments in certain situations the current dislocated markets environment has highlighted the difficulties incorporating and questionable valuations resulting from including some of the factors in element (e).

## **GENERAL PRINCIPLES OF CURRENT VALUE MEASUREMENT METHOD**

11. The current value measurement method uses the following general principles of present value techniques to calculate the value of financial instruments in certain situations in periods subsequent to initial measurement:
  - a. Cash flows and discount rates should reflect the current economic conditions.
  - b. Cash flows and discount rates should consider only factors attributed to the financial asset or financial liability being measured.
  - c. To avoid double counting or omitting the effects of risk factors, discount rates should reflect assumptions that are consistent with those inherent in the cash

flows. That is, risk and uncertainty about the amount and timing of cash flows should be incorporated either in the cash flows or discount rate, but not both.

- d. Assumptions about cash flows and discount rates should be internally consistent. For example, nominal cash flows (that includes inflation) should be discounted using nominal discount rates (that includes inflation) and vice versa. Similarly, after-tax cash flows should be discounted using after-tax discount rates and vice versa.
  - e. Discount rates should be consistent with the underlying economic factors of the currency in which the cash flows are denominated.
  - f. Risk premium refers to the compensation for bearing the uncertainty in the cash flows of a financial asset or financial liability.
  - g. For present value computations denominated in nominal U.S. dollars, the yield curve for U.S. Treasury securities determines the appropriate risk-free interest rates. U.S. Treasury securities are deemed to be (default) risk-free because the interest rates do not reflect credit (default) risk of the obligor.
  - h. The nonperformance risk relating to financial liabilities, including the credit standing of the reporting entity (obligor), is important to the measurement exercise.
  - i. The facts and circumstances of the financial instruments should be evaluated to determine the appropriate method to be used in the measurement.
12. The current value measurement method would allow entities to calculate the value using the following two approaches:
- a. Traditional Approach to Present Value – use of a single set of estimated cash flows and a single interest rate, often described as “the rate commensurate with the risk”

This approach would incorporate a deterministic set of future cash flows that would be based on estimated future cash flows, which could be contractual cash flows. This assumes probability of 1 (100%) for the future cash flow scenario used. In addition, this approach would incorporate the use of a single interest rate that would be based on the current risk free rate adjusted for expectations about possible variations in the amount and timing of cash flows (i.e., possible cash flow scenarios) and the price for bearing the uncertainty inherent in the asset or liability (i.e., risk margins) of the financial instrument for which the value is being calculated. Depending on the nature, contractual provisions and underlying economics of the particular financial instruments, both the future cash flows and discount rate would be updated to reflect current market conditions at each measurement period. See below for an illustration of this approach.

- b. Expected Cash Flows Approach to Present Value – use of probability weighted cash flows discounted at the current risk-free rate

This approach uses probability weighted future cash flows determined using the following conventions:

- 1) Finding the various scenarios under which different sets of future cash flows will be realizable. For example, stochastic modeling may be used to generate the scenarios and associated future cash flows, that may include scenarios such as optimistic, most likely and pessimistic cash flow scenarios.
- 2) Assigning probabilities to the future cash flow scenarios based on the likelihood of occurrence of that scenario given all relevant factors of the financial instrument.
- 3) Creating scenarios based future cash flows that are discounted at the appropriate current risk-free rate to present value, and then weighted by probabilities to determine the expected present value.
- 4) Estimating the price for bearing the uncertainty inherent in the asset or liability and including the premium in the expected present value.

The result is a set of probability weighted cash flows discounted at the current risk-free rate. Depending on the nature, contractual provisions and underlying economics of the particular financial instruments, both the future cash flows and discount rate would be updated to reflect current market conditions at each measurement period. See below for an illustration of this approach.

13. It is important to note that given the same facts and circumstances in which all the necessary information is available for a financial instrument, the use of either approach should yield similar results.
14. If the Boards were to require the current value measurement method in certain situations decisions would need to be made about when and what instruments the model would be applied to, what criteria would be used to determine when the model would be applied, whether entities would be able to freely choose one approach over the other, whether entities would be required to make an accounting policy election on which approach to use, etc.

## Illustration of Approaches for Calculating the Value of Financial Instruments under the Current Value Measurement Method

### Current Value of a \$100,000 BBB-rate fixed-rate non-callable debt instrument with an annual 8 percent interest coupon.

On January 1, 2008, an entity *purchases* for investment purposes at par a \$100,000 BBB-rate fixed-rate non-callable debt instrument with an annual 8 percent coupon interest rate. The principal amount of the debt instrument is due at the end of five years. For purposes of illustration in this example, the risk free rate at inception is 5 percent and the credit risk (default risk premium) is 3 percent. There is no premium included in the rate associated with illiquidity risk and/or market imperfections. At the end of the first year the risk free rate is 4.5 percent and the credit risk is 5.0 percent. Interest payments are due annually and the risk-free rate plus the default risk is the market rate for the debt instrument.

*Approach 1 – Traditional Approach to Present Value – use of a single set of estimated cash flows and a single interest rate, often described as “the rate commensurate with the risk”*

#### January 1, 2008

\$8,000 pmt, 8.00%i, 5n, PV =	\$31,942
\$100,000fv, 8.00%i, 5n, PV =	<u>\$68,058</u>
Total current value	<u>\$100,000</u>

#### December 31, 2008

\$8,000 pmt, 9.50%i, 4n, PV =	\$25,636
\$100,000fv, 9.50%i, 4n, PV =	<u>\$69,557</u>
Total current value	<u>\$95,193</u>

*Approach 2 – Expected Cash Flows Approach to Present Value – use of probability weighted cash flows discounted at the current risk-free rate*

The entity estimates that the investment payouts depend on the credit rating of the counterparty such that the expected cash flows are reflected in the table below.

**Probability Weighted Cash Flows**

<b>Credit rating</b>	<b>Possible Cash flow</b>	<b>Probability</b>	<b>Probability Weighted Cash flow</b>
BB	45,000	15%	6,750
AAA	128,333	60%	77,000
BBB	65,000	25%	16,250
<b>Expected cash flows</b>			<b>100,000</b>

The expected present value of probability weighted cash flows is as follows:

**January 1, 2008**

Possible Cash Flow	Probability	Probability Weighted Cash flow	Principal and 8% Coupon Cash Flows	Credit risk <sup>2</sup>	Net Cash Flow	Expected Present Value @5%
45,000	15%	6,750	7,290	(203)	7,088	6,750
128,333	60%	77,000	83,160	(2,310)	80,850	77,000
65,000	25%	16,250	17,550	(488)	17,063	16,250
		100,000	108,000	(3,000)	105,000	100,000

**December 31, 2008**

Possible Cash Flow	Probability	Probability Weighted Cash flow	Principal and 8% Coupon Cash Flows	Credit risk	Net Cash Flow	Expected Present Value @4.5%
45,000	19%	8,460	9,137	(417)	8,719	6,403
128,333	61%	78,540	84,823	(3,873)	80,950	73,045
65,000	20%	13,000	14,040	(641)	13,399	15,415
		100,000	108,000	(4,932)	103,068	94,863

<sup>2</sup> On January 1, 2008, the present value of credit risk premium on principal and coupon interest cash flow for the BB credit rating scenario as:  $[\$7,290 - (7,290 * (1.05/1.08))] = \$203$  undiscounted. This is discounted at the risk-free rate 5% for 5 periods. Similar computations were used for the other credit scenarios.