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## **CFA Institute**

### **Fair Value as the Measurement Basis for Financial Instruments**

#### **September 2010**

The document is a supplement to the CFA Institute Comment Letter (the “Comment Letter”) to the Financial Accounting Standards Board (“FASB” or the “Board”) Proposed Accounting Standards Update, *Accounting for Financial Instruments and Revisions to the Accounting for Derivative Instruments and Hedging Activities* (the “Proposed Update” or “Update”) dated September 30, 2010 and documents our support for fair value as the measurement basis for financial instruments.

CFA Institute support for the measurement of financial instruments at fair value stems from the transparency provided by fair value measures and their relevance and decision-usefulness to investment decision-making. We explain the relevance of fair value measures in this document and consider the reliability of these measures and the interaction between reliability and relevance. In the **Appendix** we also explore the topic of the fair value measurement of financial instrument liabilities as some view such fair value measurements as a special case.

In addition to basing our position of the relevance and reliability of fair value measurements our position is also premised on our organizational mission and the long-standing views of our members. Our views on fair value were first formally articulated in our 1993 publication, *Financial Reporting in the 1990s and Beyond*, and again in our 2007 publication *A Comprehensive Business Reporting Model (“CBRM”)*.<sup>1</sup>

### **Relevance**

#### ***Fair Value Reflects How Transactions Are Executed***

We believe fair value measures are most relevant because they reflect the reality upon which the economic world operates: **Transactions take place at fair value.** Consider the following:

- 1) Banks are not willing to lend on the historic cost of collateral. They will only lend on the fair value of collateral.
- 2) When a company considers possible sources of cash, it evaluates the selling price (fair value) of assets that may be disposed of, not the original cost.
- 3) When a company has excess cash and wants to settle certain of its liabilities, it evaluates what it must pay to settle the liability rather than what it originally received in the exchange which created the liability.
- 4) Financial markets react to changes in fair value whether they are reflected in financial statements or not. The shares of enterprises producing oil and gas, gold, and other natural resources, for example, are highly sensitive to the price of the natural resource. Similarly, companies that own real estate have share prices which react to changes in market price for their properties.
- 5) The true return on investment earned by an enterprise equals the total return (periodic payment plus change in value) relative to the fair value of its net assets. This results from the fact that the alternative is to sell the assets and invest the proceeds in another enterprise.

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<sup>1</sup> *A Comprehensive Business Reporting Model*, CFA Institute, 2007.  
(<http://www.cfapubs.org/doi/pdf/10.2469/ccb.v2007.n6.4818>)

Laux and Leuz (2009)<sup>2</sup> in their paper, *Did Fair Value Accounting Contribute to the Financial Crisis?*, note the following:

*“It is unlikely that banks themselves would accept the argument [that fair value is not relevant for assets that are held with a long-term perspective] from a borrower negotiating a new mortgage that the current prices of a house is not relevant because it is temporarily depressed!”*

Investors find fair value information equally valuable in making their decision on whether to invest in the securities of a financial institution.

### ***Fair Value Reflects Economic Reality***

Fair values reflect the most current and complete expectation and estimation of the value of assets or obligations, including the amounts, timing, and riskiness of the future cash flows attributable to assets or obligations. As such expectations lie at the heart of all transactions, we believe market efficiency would be enhanced if the information upon which such decisions are made is reported in the financial statements at fair value.

For example, some parties object to fair value measurement’s inclusion of liquidity risk in valuations. We do not agree with this opposition since oftentimes liquidity for an instrument can dry up in response to the inherent risk of the financial instrument.

### ***Amortized Cost is Outdated, Lacks Comparability And Is Not Relevant***

Our support for fair value over amortized cost has existed for nearly two decades and emanates from the fact historical cost/amortized cost is not relevant to investment decision-making. In our 1993 publication, *Financial Reporting in the 1990s and Beyond*, CFA Institute, formerly AIMR, articulated why historical/amortized cost is not as relevant as fair value:

*“It is axiomatic that it is better to know what something is worth now than what it was worth at some moment in the past . . . Historic cost itself is in reality historic market value, the amount of a past transaction engaged in by the firm . . . Historic cost data are never comparable on a firm-to-firm basis because the costs were incurred at different dates by different firms (or even within a single firm). **There is no financial analyst who would not want to know the market value of individual assets and liabilities.**”*

Those supporting the retention of historical cost/amortized cost argue that is better because “it is the truth.” While it is true that historical cost represents the historical market value at which the entity entered into the transaction, these values are generally no longer representative of, and may have little relation to, the current fair value of the assets and liabilities. Further, as noted in the preceding quote, historic cost data are never comparable firm-to-firm because the transactions entered into by and between reporting entities were executed as of different dates and in different interest rate environments. Accordingly, when considering alternative investment choices amortized cost information is not decision-useful. Overall, fair value is needed because historical cost information is seriously outdated and lacks comparability because it reflects measurement of the assets and liabilities at different dates in the past.

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<sup>2</sup> Laux, C. and Leuz, C.; *Did Fair Value Accounting Contribute to the Financial Crisis?*; Journal of Economic Perspectives; October 2009.

In July 2008, the Council of Institution Investors published a white paper, *Fair Value Accounting: Understanding the Issues Raised by the Credit Crunch*,<sup>3</sup> to understand the impact of fair value accounting in the context of financial crisis. The following observations were made regarding amortized cost accounting:

*“Amortized cost accounting raises three main issues, all of which arise from its use of untimely historical information about future cash flows and risk-adjusted discount rates.*

- 1. Income typically is persistent for as long as firms hold positions, but becomes transitory when positions mature or are disposed of and firms replace them with new positions at current market terms. This can lull investors into believing that income is more persistent than it really is.*
- 2. Positions incepted at different times are accounted for using different historical information and discount rates, yielding inconsistent and untimely accounting for the constituent elements of firms’ portfolios. This obscures the net value and risks of firms’ portfolios.*
- 3. Firms can manage their income through the selective realization of cumulative unrealized gains and losses on positions, an activity referred to as gains trading.”*

Overall, there may be reliability concerns that may make some question the relevance of fair value measures; however, there is no question that amortized cost information lacks relevance for current investment decision-making because it is not comparable within and between organizations and in no way provides information relevant to current economic conditions.

While the International Accounting Standards Board (“IASB”) and FASB (the “Boards”) may not see it as their role to provide comparable information across institutions competing in the same sector or industry, it is our position that the Boards have a responsibility to recognize that most investors evaluate companies by comparing them against other competing firms. Accordingly, providing decision-useful information to the investment community means that this reality has to be a central consideration in the contemplation of the appropriate accounting model. Given that relative valuation techniques such as the price-to-book ratio are among the most prevalent valuation techniques used by market participants evaluating financial sector stocks, it is not an appropriate position to argue that populating the ratio with non-comparable amortized cost information will yield an investor more decision-useful information than the same ratio populated with fair value information.

#### ***No Compelling Argument That Amortized Cost Results in Better Investment Decision-making***

The relevance of fair value to investment decision-making can be illustrated through a simple example. Assume Institution A is comprised of a single \$1,000,000, 10-year, 3% loan and Institution B has a single \$1,000,000, 10-year, 8% loan. The statements of financial position of both Institutions A and B on an amortized cost basis would reflect assets of the same value – assuming same credit quality – yet Institution B’s asset, yielding 8%, is clearly more valuable. Review of the statement of financial position would not tell an investor which enterprise is more valuable. Hence, amortized cost is not decision-useful in the investment decision-making process. Even with interest income of \$30,000 for Institution A and \$80,000 for Institution B reflected in the income statement, an investor might be able to determine that Institution B is a better investment, but an investor – without knowing current market rates and performing their own fair value computation – cannot ascertain the price which should be paid for each institution. Assuming current market interest rates for similar loans are 6%, only with fair values can investors readily determine that the value of Institution A would be \$779,197 and Institution B would be \$1,147,202.

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<sup>3</sup> Ryan, Stephen G.; *Fair Value Accounting: Understanding the Issues Raised by the Credit Crunch*; Council of Institutional Investors; July 2008.

We find the illustration provided by FASB Chairman Herz in his remarks at the 2009 AICPA National Conference on Current SEC and PCAOB Developments<sup>4</sup> to be a useful and uncomplicated example of the relevancy of fair value measures to investment decision-making. In his example, he illustrates how with amortized cost information, for both financial assets and financial liabilities, an investor would not reach the optimal investing decision nor know the price at which to invest. Investors and preparers should review the illustration as it demonstrates the relevancy of fair value measures to investment decision-making.

Based on our review of comment letters and arguments of those proposing the use of amortized cost, there is no articulation or illustration of how better investment decisions can be made with amortized cost information. We find statements of belief, but there is neither a compelling argument nor conceptual basis presented which demonstrates that amortized cost information leads to better investment decision-making.

### ***Survey Suggests Mixed Measurement Model Is Not Most Decision-Useful***

Interestingly, although a recent PricewaterhouseCoopers<sup>5</sup> survey purports to support retention of the existing mixed attribute model a subtle reading of that survey supports the relevance of fair value measures and the lack of usefulness of current financial reporting practices. When asked whether investment professionals make significant adjustments to financial instrument information provided either in the primary financial statements or in the disclosures, respondents indicated they:

- 34% - always make such adjustments;
- 28% - usually make such adjustments;
- 33% - occasionally make such adjustments, and
- 5% - never make adjustments.

The nearly two-thirds of respondents who indicated they always or usually make adjustments were asked why they make such adjustments. Survey participants indicated they made the adjustments for the following reasons:

- 53% - To reflect the affect of different valuation assumptions.
- 42% - The measurement/valuation basis is not helpful.
- 45% - Because of mismatch between measurement/valuation method used for assets & liabilities that fund them.
- 40% - The manner in which values are used in reporting income statement impact was not useful.
- 20% - Other.

The response rate is such that the analysts made adjustments for at least two of the aforementioned reasons with a majority, 53%, of respondents indicating they make adjustments to reflect different valuation assumptions than those reported in the financial statements and 42% indicated they found the measurement/valuation basis not helpful. Additionally, 45% indicated they found that the financial statements did not appropriately reflect the asset/liability mismatch. These analysts are adjusting what is reported in the basic financial statements to another measurement basis as they did not find the current measurement basis in the financial statements helpful to analysis. This finding contradicts their apparent support for retention of the status quo in the measurement of financial instruments. While analysts will always make adjustments to forecast earnings and the value of the enterprise, the use of fair value measures which incorporate elements of valuation will result in more informative and useful adjustments.

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<sup>4</sup> Remarks of Robert H. Herz Chairman, Financial Accounting Standards Board, AICPA National Conference on Current SEC and PCAOB Developments, December 8, 2009.  
([http://www.fasb.org/cs/ContentServer?c=Document\\_C&pagename=FASB%2FDocument\\_C%2FDocumentPage&cid=1176156571228](http://www.fasb.org/cs/ContentServer?c=Document_C&pagename=FASB%2FDocument_C%2FDocumentPage&cid=1176156571228))

<sup>5</sup> PricewaterhouseCoopers; *What Investment Professionals Say About Financial Instrument Reporting*; June 2010; Page 9.

### ***Market Prices Demonstrate Investors Adjust Book Values***

The recent financial crisis saw many financial institutions' share prices trade well below book value. This discount to book value is an indication that investors did not find the value of the assets and liabilities recorded within the financial statements to be true measures of economic value. This is evidence that historical cost measures reported within the financial statements are disconnected from economic reality.

### ***Highly Relevant Information on Values Belongs on the Statement of Financial Position Rather Than As Supplementary Disclosure***

While some argue that the fair value is not knowable, or reliably measurable, no one can argue that in the business of investment decision-making fair value is not useful. We would note that even those opposing the further extension of fair value to loans, for example, acknowledge the relevance of these measures by indicating the fair value disclosures should continue to be included as disclosures in the footnotes. However, they simultaneously indicate that investors do not need this relevant information at the same time as the earnings release so that it can be most decision-useful. The relevancy of fair value measures is reduced by providing them at a significant time lag to the basic financial statements. Our view is that if the information is relevant, it should be provided simultaneous with the earnings release. Further, if fair value is the most relevant measure – as is evidenced by its usage by analysts to impact their analysis/valuations and the market in its pricing of shares – it should be the measure reflected in the financial statements rather than as supplemental disclosure. Conference calls are typically held immediately after the earnings release date, and before the filing of the Form 10K or Form 10Q which precludes analysts from questioning management about information they don't have.

Finally, providing the fair value information in the notes and expecting users to overlay the information themselves puts less sophisticated investors at a significant disadvantage.

### ***Academic Research Finds Relevancy in Fair Value Measures***

Significant academic research has been conducted over the last two decades – as fair value measures have been incorporated into financial reporting either through disclosures or as the measurement basis within the basic financial statements – on the topic of the relevancy of fair value measures and how relevance is impacted by reliability. Still further, research exists to consider whether this value relevance research is, in fact, relevant itself. More research exists than can be cited or summarized here. What is clear is that those engaged in the discussion over whether fair value should be further incorporated into the financial statements should review and consider the findings of this research. Overall, the research finds that fair value measures are relevant, but their relevance – like any estimate – is intertwined with their reliability. It finds that fair value measures are clearly relevant to share prices. We find the work of Barth and Landsman to be the most extensive and persuasive in consideration of the issues regarding relevance, reliability and value relevance of fair value measures of investment securities and bank loans. Landsman (2007)<sup>6</sup> noted the following as it relates to research on relevance of investment securities and bank loans:

*“Barth et al. (1996), Eccher et al. (1996), and Nelson (1996) use similar approaches to assess the incremental value relevance of fair values of principal categories of banks assets and liabilities disclosed under SFAS No. 107 in 1992 and 1993, (i.e., investment securities, loans, deposits, and long-term debt). Supporting the findings of Barth (1994) using pre-SFAS No. 107 data, **all three studies find investment securities fair values are incrementally informative relative to their book values in explaining bank share prices.***

*Using a more powerful research design that controls for the effects of potential omitted variables, **Barth et al. (1996) also find evidence that loans' fair values are also incrementally informative relative to their book values in explaining bank share prices.** Barth et al. (1996) also provide additional evidence that the*

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<sup>6</sup> Landsman, Wayne R.; *Is Fair Value Accounting Information Relevant and Reliable? Evidence from Capital Market Research*; International Accounting Policy Forum; 2007.

*fair values of loans reflect information regarding the default and interest rate risk of those loans. In addition, the study's findings suggest that **investors appear to discount loans' fair value estimates made by less financially healthy banks** (i.e., those banks with below sample median regulatory capital), which is consistent with investors being able to see through attempts by managers of less healthy banks to make their banks appear more healthy by exercising discretion when estimating loans fair values."*

As noted below in the consideration of reliability and relevance Song et al. (2010)<sup>7</sup> and Barth et al. (2010)<sup>8</sup> find fair values relevant in the explanation of share prices. Overall, the research of those cited herein and still others provides substantial evidence that recognized and disclosed fair value measures are relevant to investors and reliable enough to be reflected in share prices.

### **Reliability**

#### ***Relevance Has Primacy Over Reliability***

As an organization, the CFA Institute has always placed relevance and timeliness above reliability. Principle #4 in the CFA Institute's, the CBRM articulates the following:

*"Recognition and disclosure must be determined by the relevance of the information to investment decision-making and not based upon measurement reliability alone."*

We believe that relevancy and reliability are intertwined to some degree, but that relevancy has primacy over reliability.

#### ***Reliability is Not Dependent on Absolute Verifiability***

As we articulate in our CBRM, we do not believe reliability is unimportant. The most reliable number may, however, only be known with perfect information and at the time when that information may no longer be relevant. We believe that investors are better served with reported amounts that are approximately right rather than those that appear precise, or are easy to calculate, but have limited relevance.

The definition of reliability in FASB Statement of Financial Accounting Concepts No. 2 ("CON 2"), *Qualitative Characteristics of Accounting Information*, is as follows:

*"The quality of information that assures that information is **reasonably free from error and bias and faithfully represents what it purports to represent.**"*

To be reliable a measure does not need to be perfectly verifiable.

*"In summary, verifiability means no more than that several measurers are likely to obtain the same measure. It is primarily a means of attempting to cope with measurement problems stemming from the uncertainty that surrounds accounting measures and is more successful in coping with some measurement problems than others. Verification of accounting information does not guarantee that the information has a high degree of representational faithfulness, and **a measure with a high degree of verifiability is not necessarily relevant to the decision for which it is intended to be useful.**"*

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<sup>7</sup> Song, Chang J., Thomas, Wayne B., Yi, Han; *Value Relevance of FAS 157 Fair Value Hierarchy Information and the Impact on Corporate Governance Mechanisms*; The Accounting Review; July 2010.

<sup>8</sup> Barth, Mary E. and Landsman, Wayne R.; *How Did Financial Reporting Contribute to the Crisis?*; European Accounting Review; July 2010.

Accordingly, a Level 3<sup>9</sup> measurement is not unreliable because it cannot be “looked-up” somewhere. It need only to be reasonably free from error and bias and faithfully represents what it purports to represent.

***Amortized Cost: Verifiable But Not Representationally Faithful***

CON 2 also states that there are degrees of reliability, and that:

*"It is hardly ever a question of black or white, but rather of more reliability or less."*

If a number is representationally faithful and free from bias, it can be reliable. To be representationally faithfully there must be a connection between the accounting numbers and what the numbers purport to represent.

Some argue that amortized cost is the most reliable measure because it can be verified by the existence of a past transaction and, for that reason, should be the measurement basis utilized in the financial statements. However, a historical cost measure – for the reasons noted previously and as cited in the academic research which follows – though verifiable, is not representationally faithful as it does not reflect the current value of the asset or liability and it lacks current relevance in the investment decision-making process. As such, it is not reliable. Amortized cost fails to reflect current values because it is untimely historical information which does not reflect an update of future cash flows and risk-adjusted discount rates as described above in Ryan (2008).<sup>10</sup>

Opponents of the use of fair value articulate that it is not reliable; however, it is in fact amortized cost which is not reliable. We submit that amortized cost lacks reliability because it is not representationally faithful and that fair value measures have the potential to be more reliable by being representationally faithful if prepared with neutrality and without bias.

Amortized cost essentially looks at factors such as interest rates and cash flow streams and makes simplifying assumptions that these factors should be held fixed through time. As a result of these simplifying assumptions, the amortized cost model is inconsistent with economic reality. Investors' capital is needlessly put at risk when they are asked to depend on the flawed simplifying assumptions inherent in amortized cost information included within the basic financial statements. The amortized cost model is particularly incapable of presenting representationally faithful information for long-duration financial instruments.

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<sup>9</sup> FASB Topic 820; *Fair Value Measurements and Disclosures*, formerly Statement of Financial Accounting Standards (SFAS) No. 157, *Fair Value Measurements*, defines fair value as an exit price and establishes a fair value hierarchy where fair value measurements are classified by the observability of their inputs. Level 1 measurements are based upon inputs which are quoted prices in active markets. Level 2 measurements are based upon inputs other than quoted prices within Level 1 but that are observable either directly or indirectly. Level 3 measurements are based upon inputs which are unobservable.

<sup>10</sup> Ibid 3.

***Issue of Relative Improvement in Reliability:***

***Reliability of Fair Value Measures vs. Reliability of Historical Cost Measurements***

The issue before accounting standard setters is one of relative improvement in estimates, information quality, transparency and decision-usefulness. The issue isn't one of perfect reliability, or verifiability, as those who insist on calling fair value accounting "mark-to-market accounting" suggest – implying that market verifiability is an essential element of fair value accounting.

Our view is that the use of fair value would introduce a measure of market discipline and result in relative improvement in measurement estimates, information quality, transparency and decision-usefulness. Central to this conclusion is that fair value includes the following attributes: a) a consistent definition as an exit value notion; b) incorporation of all relevant value inputs, c) emphasis on the maximum use of market observable inputs; and d) an ability to utilize unobservable inputs when necessary. These attributes are further strengthened when combined with high-quality disclosures of the observable and unobservable significant inputs along with estimation techniques and measurement ranges.

The reliability of fair value measures – like any management estimate – is dependent on the quality (i.e. representational faithfulness, neutrality and verifiability) of the underlying inputs and measurement techniques. Estimating fair value is easiest when financial instruments are actively traded in liquid markets (i.e. Level 1 valuations) and becomes more complicated when active liquid markets do not exist (i.e. Level 3, and to some degree Level 2 valuations). Issues such as informational asymmetry and the potential for adverse selection combined with the moral hazard of having management apply the information to fair value measurements in a neutral and unbiased way are issues which may impact the reliability of such measures – particularly Level 3, and certain Level 2 valuations. The creation of the fair value hierarchy in SFAS 157 (Topic 820) was meant to communicate to investors and users the subjectivity and potential degrees of reliability, of fair value measures by communicating the observability of inputs and the types of estimation techniques. Similarly, Topic 820's disclosures are meant to assist investors in understanding and evaluating the quality of such measurements. Certainly, the more subjectivity involved in an estimate, the greater the potential for reliability concerns. This holds true for fair value measures and existing estimates (e.g. valuation allowances and impairments); however, fair value has a consistent definition and emphasis on market inputs and market discipline.

The issue for standard setters is not whether fair value is perfectly reliable but whether fair value is more relevant than, and at least as reliable as, amortized cost (which we have discussed previously as being neither reliable nor relevant). Financial institutions were failed by the use of amortized cost combined with allowance, provisioning or impairment techniques (i.e. incurred or expected loss) during the most recent financial crisis. Existing measurement techniques for determining impaired assets share estimation biases and difficulties similar to fair value measurement techniques but they lack the requirement to reference inputs or estimation techniques to market forces as is required by fair value.



***Existing Estimates Also Have Reliability Issues: They Are Essentially Unobservable “Level 3” Estimates***

Those opposed to fair value measures and who highlight their “lack of reliability” as the basis for their opposition fail to acknowledge that the provision for credit losses on loans, for example, is subject to the same estimation issues and biases which they use to declare fair values unreliable.

Credit loss provisions are, in fact, Level 3 estimates in that they utilize unobservable, entity specific inputs. Issues such as informational asymmetry, the potential for adverse select and the moral hazard of having management arrive at such fair value measurements are equally applicable in the determination of the allowance for loan losses. The criticisms of the reliability of fair value measures – particularly Level 3 fair value measures – are also applicable to management’s estimates of loan provisions. Further, events of the recent financial crisis have raised significant questions regarding the reliability of such measures as they did not adequately communicate to investors the risks or losses inherent in the assets measured using this approach.

We would argue that non-fair-value measures are more suspect than fair value measures when it comes to incorporating “unobservable” inputs because their use of management discretion has no unifying benchmarking mechanism to align unobservable assumptions across firms with economic reality.

Because of these factors, we question how the reliability of the existing measurement approaches could be deemed to be more reliable than fair value. Fair value attempts to invoke a standard measurement definition, reference to market based inputs, when observable, and to include all inputs which are relevant to the valuation of a financial instrument (e.g. the risk-free rate and liquidity in addition to credit.)

One bank analyst<sup>11</sup> recently noted the insufficiency of the current accounting for financial instruments, the issues with income statement focused bank valuation analysis, and the lack of reliability of management’s estimates during the recent financial crisis:

***“As bank equity analysts our primary form of valuing shares of all companies during normal times is discounted cash flow analysis. During times of stress we also closely dissect bank balance sheets to ensure that there is no going concern or dilution risk. During the 2007 to 2009 financial crisis there was considerable doubt and uncertainty concerning both cash flows and net asset values. In a number of instances investors did not fully discover until well into the crisis the degree to which certain activities and loan types provided little or no cash flow (gain on sale income/construction loans/Option ARMs), thus having created over stated incomes and retained earnings. In addition, in many instances, deterioration in the underlying credit of loans was not disclosed to the satisfaction of market participants. Further, management direction on the underlying value of collateral was generally not reliable. As a result, market participants moved to a stress tangible book analysis, using their own assumptions of credit costs.***

***In hindsight the financial crisis uncovered shortfalls in the accounting for financial instruments including the limitations on the understanding of cash flows and asset values.”***

The quote demonstrates that analysts “during normal times” don’t place significant focus on the statement of financial position – only in times of stress do statements of financial position get dissected. The issue during the most recent financial crisis is that analysts, and managements, had taken their eyes off the statement of financial position and they did not see the accumulation of risk which was manifesting itself on the statement of financial position. Until the emergence of the financial crisis in late 2008, and triggering of the other than temporary impairment rules in early 2009, management’s did not begin to address the realities of their past practices. Similarly, analysts only then began to place greater emphasis

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<sup>11</sup> Frederick, Cannon; Keefe, Bruyette & Woods; *Accounting for Financial Instruments: FASB Proposes a New World for Accounting*; July 27, 2010.

on the statement of financial position. Our view is that the statement of financial position and this risk could have been detected earlier with greater statement of financial position emphasis and fair value accounting combined with better risk disclosures. As we have emphasized in the FASB's Financial Statement Presentation Project the cohesiveness of the financial statements and a direct cash flow method would have improved the understanding of the transactions affecting the statement of financial position and income statement and their impact on discounted cash flow modeling.

What is also obvious by this quote is that the financial instrument measurement techniques we currently utilize were insufficient and that improvements in financial instrument accounting are essential.

***Fair Value Estimates Are Relevant Because They Are Reasonably and Sufficiently Reliable***

Many who oppose fair value claim that fair value measurements should not be utilized because they – most specifically Level 3 measurements – are not reliable. As noted above, there is a proliferation of academic research which supports that fair value measurements are relevant to share prices and relevance cannot be achieved without a degree of reliability of the measurement. Obviously, because of the subjective nature of Level 3 estimates they experience greater market discounting than Level 1 estimates and, depending upon the academic study, Level 3 fair value measures may be equal to or less relevant than Level 2 estimates because of their reliability. Level 3 discounts are estimated to be in the range of 20-30% as noted by Laux and Leuz (2009)<sup>12</sup> and are smaller when the reported values are likely to be more credible.

In a recent study of the relevance and reliability of fair value measurements giving consideration to the fair value hierarchy Song et al. (2010)<sup>13</sup> reached the following conclusions:

***“Overall, we conclude that the fair value hierarchy required by FAS No. 157 provides useful information to investors and the strength of corporate governance appears to mitigate the information asymmetry problem arising from relatively less reliable fair value inputs. These results contribute to the literature on fair value accounting. We provide early evidence of the value relevance of new disclosures under FAS No. 157. Prior to FAS No. 157, direct test of the association between the reliability of fair value information and equity prices were more difficult. Using the fair value hierarchy under FAS No. 157, we provide direct evidence of the value relevance of more reliable (Level 1) versus less reliable (Level 3) information.***

*Two recent working papers (Kolev 2009; Goh et al. 2009) provide tests of value relevance similar to ours. Although we find valuations of Level 1 and Level 2 assets and liabilities close to 1 and -1, these papers find valuations of Level 1 and Level 2 net assets significantly less than 1. Furthermore, Goh et al. (2009) document that investors value Level 2 net assets less than Level 1 net assets, but do not value Level 2 and Level 3 net assets differently. In contrast, we show that Level 1 and Level 2 assets are valued similarly, while Level 3 assets are valued the least. Goh et al. (2009) also document that the value relevance of net fair value assets decreases over the first three quarters of 2008, whereas we find that the value relevance of fair values does not decrease over this period. **Finding evidence that the value relevance of fair values does not decrease as markets become less liquid may be particularly important to standard-setters who are interested in the market's perception of the reliability of fair values during an economic crisis.**”*

While they find slightly less value relevance for Level 3 estimates, they still find the measures highly relevant to share price.

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<sup>12</sup> Ibid 2.

<sup>13</sup> Ibid 7.

As more fully quoted in a section which follows, Barth et al (2010)<sup>14</sup> make the following comments regarding the relevance and reliability of fair value accounting:

*“Taken together, the fair value literature, including the studies that focus on banks, provides rather substantial evidence that recognized and disclosed fair values are relevant to investors and reliable enough to be reflected in share prices.”*

None of the research we reviewed supports the claim by those opposing the further advancement of fair value that fair value measurements are irrelevant because they are unreliable. Value relevance studies cited above, combined with the recent financial crisis where market values traded substantially below book value, is an indication that markets substantially discounted existing historical cost measurements and that they believe that other measurements such as fair value may be more reliable than existing measurements to investors.

Finally, we noted several instances where those considering the relevance and reliability of financial instrument fair values made observations similar to that of Laux and Leuz (2009)<sup>15</sup> regarding the impact that not having high-quality fair value measurements may create on market uncertainty and share price:

*“Although deriving fair values can be quite complex in illiquid markets and in times of crisis, it is conceptually difficult to argue that the disclosure of fair-value information per se contributed to uncertainty and exacerbated the financial crisis. Given the known problems in the housing and subprime lending market, it is hard to argue that investors would have not been concerned about bank holding companies had they not disclosed fair-value information. Instead, it is more plausible that less information would have increased investor uncertainty and concerns about adverse selection. In principle, disclosure of fair-value information should mitigate these problems. Moreover, it makes it more difficult for banks to downplay potential problems and hence should act as an early warning system and as a trigger for corrective actions. That is, even if banks’ shareholders would have been calmer in the absence of fair-value disclosure, which seems unlikely, there is the concern that, in this case, banks might have had incentives to continue their excessive subprime lending.”*

Fair value measures which have consistency in definition, incorporate all elements of financial instrument measurement, invoke some degree of market discipline and which are more relevant to investment decision-making are better measurements for recognition of financial instruments within the basic financial statements. This conclusion is based upon our review of the academic research which demonstrates the reliability and relevance of fair value measures and our consideration of the reliability of fair value measures relative to existing estimates which incorporate no element of market discipline.

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<sup>14</sup> Ibid 8.

<sup>15</sup> Ibid 2.

***Ability to Reliably Measure Expected Future Credit Losses But Not Reliably Measures Fair Values?***

Some parties who are unsupportive of the extension of fair value because of their claim that it lacks reliability in measurement simultaneously argue for an expected future credit loss model<sup>16</sup>. There seems to be a contradiction inherent in the argument that current loan fair values cannot be reliably determined while, at the same time, asserting that credit risk over a long-term (e.g. thirty-year) loan can be reliably measured.

We would also observe the inherent contradiction of those who propose an expected loss model while simultaneously indicating fair value information will be pro-cyclical or create volatility— as expected loss models create similar economic effects. Barth et al. (2010)<sup>17</sup> thoughtfully articulate the pro-cyclicality of expected loss, and incurred loss, measurement approaches in their article. Accordingly, the notion that only fair value is pro-cyclical is incorrect and cannot be an argument against fair value while at the same time supporting an expected loss approach.

We support an expected cash flows approach which utilizes future expectations because this is more consistent with fair value. We do not support an expected loss approach which smoothes losses using a “through-the-cycle” approach.

One important feature of an expected loss model which is not fully developed or explained by those proposing an expected loss model, yet opposing fair value, is what interest rate they expect to discount their expected credit loss estimates – the original effective interest rate as suggested by the IASB model or a current market rate which would result in a closer approximation to fair value. If you take opponents to the Proposed Update’s arguments (i.e. and there call for the financial statements to reflect the “cash value to the bank”) to the extreme, it would suggest there should be no discounting of expected losses as there needs to be a reflection of the loss of amortized cost in the balance sheet, irrespective of discount rates.

A comparison of an expected loss approach with a fair value measurement approach would suggest that if risk-free interest rates are observable and credit can be reliably measured, as suggested by those advocating an expected loss approach but opposing the Update, then liquidity is the only significant element of the fair value computation left to estimate. Liquidity is priced into long-term loans as they are made (i.e. upward sloping yield curve). This is a fact that many who call for the exclusion of liquidity in fair value computations seem to forget. Liquidity would have to be presumed to be substantially different upon entry price and exit price to result in a substantial difference in fair value estimates. This may be occur – as we witnessed during the most recent financial crisis – but generally only when market conditions exist that suggest an entity may need to liquidate their loan portfolios to fund liquidity needs of their institutions, to remain a going concern, or be sold in their entirety to another financial institution which we witnessed during the financial crisis. Said differently, liquidity matters when it matters. Disclosures regarding liquidity estimates to enhance users’ understanding of such measures could be established to address concerns regarding the unobservable liquidity inputs. Such disclosures would allow entities to disclose what they may believe to be “liquidity discounts” while at the same time incorporating expected credit losses and movements in interest rates to make financial instrument valuations more relevant. Market participants could then decide whether such liquidity premiums or discounts should be priced into valuations or ignored.

Overall, it is difficult to ascertain, on balance, how fair value measurements – with some element of market discipline – would not be at least as reliable as the expected loss approach being suggested.

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<sup>16</sup> Example of Comment Letter Supporting Expected Loss Model: Wells Fargo Comment Letter to FASB on Proposed Update; Richard D. Levy, Executive Vice President & Controller; August 19, 2010.

<sup>17</sup> Ibid 8.

### ***Confidence in Reliability of Level 3 Measures Can Be Increased by Management***

Academic studies demonstrate the reliability, and/or confidence in the reliability, of Level 3 estimates can be increased by management through improved disclosures and effective corporate governance combined with strong internal controls.

#### ***Expanding Disclosures***

In considering the reliability of fair value measures, Landsman (2007)<sup>18</sup> considered the informational asymmetry created by such estimates and the ability of management to “manipulate the model inputs” and made the following observation:

*“If fair value accounting for financial instruments or non-financial assets is generally applied for financial statement recognition, accounting standard-setters and securities regulators face the challenge of determining how much latitude to give managers when they estimate fair values, balancing the benefit of permitting managers to reveal private information, thereby mitigating the adverse selection problem, and the moral hazard cost of their exercising discretion to manipulate earnings and balance sheet ratios that affect contracting relationships with lenders and, in the case of financial institutions, financial statement-based regulatory capital used by bank regulators interested in stability of the banking system.*

*Although the securities market tends to act as a disciplinary force to keep firms and its managers honest, it does so with a lag. **One solution advanced here to the problem of balancing the adverse selection and moral hazard problems is to require extensive disclosure of the underlying assumptions used when estimating fair values, whether the fair value estimates be Level 1, 2, or 3.**”*

The IMF in their 2009 Working Paper<sup>19</sup> made the following observations about disclosures when indicating that fair value was the preferred framework for financial institutions:

*“In light of the different dynamics through the financial cycle and the doubts that can surround valuations, **FV estimates should be supplemented by information on a financial instrument’s price history, the variance around the FV calculations, and management’s forward-looking view of asset price progression and how it will impact the institution’s balance sheet.** Reporting a range within which the FV price could fall would help users of financial statement to better understand and utilize the volatilities with which they are dealing. **FV estimates should be supplemented with detailed notes on the assumptions underlying the valuations and sensitivity analyses, so that investors can conduct their own scenario analyses and determine whether the FV price is representative of market conditions.**”*

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<sup>18</sup> Ibid 6.

<sup>19</sup> Novoa, A., Scarlata, J., Sole, J.; *Procyclicality and Fair Value Accounting*; IMF Working Paper; March 2009.

### Enhancing Corporate Governance

Effective corporate governance including having several financial experts on the audit committee and a board composition which includes independent board members improves the credibility and confidence in Level 3 fair value measurements as does strong internal controls and the use of external valuation specialists and Big Four auditors.

In a recent study of the relevance and reliability of fair value measurements Song et al. (2010)<sup>20</sup> found that while disclosures<sup>21</sup> did not reduce the information asymmetry and credibility issues, good corporate governance did increase reliability as noted below:

*“We also contribute to the literature by examining directly the association between the strength of corporate governance and value relevance of fair values. Standard-setters understand that information asymmetry would be higher for Level 3 assets and for this reason they required firms to provide additional disclosures for these items (e.g., the inputs used to measure fair value and the effect of the measurements on earnings or changes in net assets). Presumably these additional disclosures would reduce or even eliminate the information asymmetry problem. We find evidence consistent with the information asymmetry problem continuing to exist, but the strength of corporate governance appears to ameliorate this problem. These results highlight the importance of corporate governance for the value relevance of accounting information, especially for information that is potentially less reliable.”*

Luez and Laux (2009)<sup>22</sup> made a similar observation:

*“Furthermore, the three studies show that the relative discount of Level 3 assets is smaller when the reported values are likely to be more credible, that is, for firms using Big Four auditors, external valuations, having several financial experts on the audit committee, and for firms with independent board members and strong internal controls. The relative discount of Level 3 assets also increases for banks with less regulatory capital.”*

### Overall

While some find mixed results as it relates to disclosures the presence of effective corporate governance and internal control features increased the reliability and relevance of the fair values. The message for management is that they can increase the market’s perception of the accuracy of their measurements. Over time, with disclosures which demonstrate the reliability of management’s fair value estimates, confidence in such measures can be improved.

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<sup>20</sup> Ibid 7.

<sup>21</sup> Song et. al.’s test of the effectiveness of disclosures was completed before recent disclosure enhancements related to fair value were adopted by the FASB.

<sup>22</sup> Ibid 2.

### ***The Move from SFAS 107 Fair Value Disclosures to SFAS 157 Fair Value Recognition***

Presently, there is a great deal of uncertainty expressed by some regarding the adoption of fair value measurements for recognition purposes for certain financial instruments, particularly for loans. We believe the exemption provided under Topic 825<sup>23</sup> which carried over from SFAS 107<sup>24</sup> and permitted financial institutions to prepare loan fair value disclosures on a basis other than the exit value definition under SFAS 157 – combined with the poor quality preparation of such disclosures as evidenced by the wide variability in loan carrying amount to fair values – has made the acceptance of the Proposed Update more difficult for certain members of the FASB’s constituency. Heretofore, investors have not been consistently exposed to the fair value disclosures on a SFAS 157 basis and now are attempting simultaneously to understand these valuations and determine their impact on the basic financial statements. These investors also question the reliability of the measures because of the poor quality and inconsistency of the SFAS 107 disclosures to date. The lack of perfect transparency regarding the impact of recognition versus disclosures is making the transition more difficult for certain users.

As an aside, we note that many calling for convergence as a means to adopt a mixed measurement model, and avoid the implementation of fair value on an exit value basis for recognition or disclosure, for financial instruments such as loans, would not be precluded from disclosing the fair value of loans on an exit value basis under IFRS as there is no exemption provided for loans under IFRS as there is under U.S. GAAP.

### ***Reporting Fair Value Measures in Financial Statements Would Increase Reliability***

Presently, fair value measurements – such as that for loans – are not as relevant as they could be because they do not include all elements of fair value, they are overly aggregated and the note disclosures are generally not prepared or audited with the same level of rigor as information contained in the basic financial statements. As such, we expect the inclusion of fair value measurements in the basic financial statements as a catalyst to improve the quality and reliability of such measures because what gets measured matters and is what gets monitored.

As with the other advancements in fair value, with time best practices will emerge, disclosures will improve, and market discipline will improve. Further, investors, preparers and auditors will come to better understand and utilize the measures.

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<sup>23</sup> Topic 825-10-55-3 substantively allows a preparer to disclose the fair value of loans using a discounted cash flow approach rather than an exit value approach as defined in Topic 820, formerly SFAS 157.

<sup>24</sup> Statement of Financial Accounting Standard (SFAS) No. 107, *Disclosures About Fair Value of Financial Instruments*, was replaced by the disclosure section of FASB Topic 825, *Financial Instruments*.

### ***Fair Value Measures Are Already in Use: Should Investors Consider Them Unreliable?***

Arguments against the Proposed Update which are premised on the lack of reliability of fair value measurements should raise questions by investors regarding how preparers can determine and recognize fair value measurements today on identical financial instruments – simply in different contexts. There are numerous illustrations of where fair value measurements are already included in the financial statements. They include the following:

- 1) *Fair Value Application in Purchase Accounting* – Financial institutions apply fair value measurements to all assets and liabilities – including financial assets and liabilities – as a part of the application of purchase accounting. There are many financial institution acquisitions which were consummated as a result of and during the financial crisis which resulted in the inclusion of fair value measurement adjustments – including sizeable liquidity marks – being included in accretable yield. Do such yield measures and financial results lack reliability because of the use of fair value measures (asserted to be unreliable) in the application of purchase accounting for business combinations – particularly during a period of market instability?
- 2) *Fair Value Allocation in Goodwill Impairment Testing* – Many financial institutions experienced goodwill impairment charges during the recent financial crisis. To arrive at the amount of the goodwill impairment the fair value of the reporting entity must be determined and such fair value must be assigned to the individual assets and liabilities of the entity in order to determine the remaining goodwill, which is compared to the existing goodwill. The difference is the impairment charge. Without the ability to reliably measure the financial assets and financial liabilities, determination of the amount of goodwill impairment cannot be reliably determined. Were such measurements of impairment charges not reliable because they were based on fair value measurements for such financial instruments?
- 3) *Fair Value Application in Certain Asset Impairment Testing* – When certain, not all, assets are impaired they are written down to fair value. How can fair value measurements be appropriate and reliably estimated when determining impairments but not routinely for recognition of financial instruments? Why is there an asymmetrical application of fair value accounting?
- 4) *Fair Value Measurements of Pension Assets* – Pension plan assets are measured at fair value and are netted against the pension obligation to arrive at the net pension asset/obligation that impacts common equity. With the implementation of new disclosures in 2009, pension assets such as loans, real estate and private equity investments have been fair valued as Level 3 measurements. How can such assets be reliably measured for pension plans but not by entities sponsoring the plan?
- 5) *Fair Value Option* – Many argue financial liabilities cannot be reliably measured at fair value, yet with the issuance of SFAS 159, *The Fair Value Option for Financial Assets and Financial Liabilities*, a significant number of large financial institutions elected the fair value option and were able to measure selected financial liabilities at fair value. When there is a will to measure at fair value, or a perceived benefit to an entity's financial condition, there seems to be a way to measure at fair value. We would prefer such the measurement not be optional as accounting optionality is not investor friendly.
- 6) *More Complex Instruments Are Already Measured Using Fair Value* – Presently, there are many debt and equity securities as well as derivatives valued as Level 3 fair values. Such valuations include private placement debt securities, below investment grade debt securities, bank loans classified as securities by life insurers, embedded derivatives and other complex derivatives. These instruments were not the subject of the fair value measurement debate which ensued during the financial crisis because they were always Level 3 measurements. Rather, instruments at the center of that debate were Level 2 instruments for which there were observable prices, but they were prices which preparers claimed were distressed, disorderly or inactive markets. Many argued that such prices should be ignored and Level 3 measurements utilized. Given the proliferation of complex instruments which are already measured at fair value utilizing Level 3 techniques – and which are not necessarily held for trading purposes – why can't loans be fair valued reliably?
- 7) *Fair Value in Note Disclosures* – Fair value measures are currently disclosed in the footnotes to audited financial statements. We are concerned that opponents' arguments against the Proposed Update, may in part, signal to investors that the fair value disclosures are less reliable than represented.

Overall, those arguing against fair value appear to be indicating that the fair value measures which this Proposed Update would extend to are not reliably determinable, yet there are numerous illustrations, such as those above, where such exact fair value measurements for financial instruments have already been



utilized in existing basic financial statements. Opponents would also appear to be signaling to investors that the fair value disclosures included in the footnotes are not reliable. Additionally, their arguments regarding reliability are contradictory given that substantially more complex financial instruments are currently being measured and reported at fair value in the basic financial statements.

### ***Additional Observations Regarding Relevance and Reliability of Fair Value Measurements***

#### ***Fair Value Accounting Is Not “Mark-to-Market” Accounting and***

#### ***Does Not Lack Reliability Because It Precludes the Incorporation of Entity Specific Assumptions***

Some who are unsupportive of the Proposed Update believe that the application of Topic 820 regarding fair valuing loans implies “mark-to-market” accounting and the lack of markets means fair values cannot be reliably determinable. Still further, some indicate that this “mark-to-market” accounting results in a lack of reliability because of the incorporation of market rather than entity specific assumptions – hence resulting in values which are not representationally faithful of their underlying financial instruments. Neither of these beliefs is correct. The application of fair value accounting does not require the existence of deep and liquid markets to be applied and entity specific assumptions can be utilized when observable market inputs are not available. A quote which illustrates this misconception is as follows:

*“Our Loan Portfolio, however, should be considered a long term assets (held to maturity). We have no intention of selling these loans and could not because they are not readily marketable; therefore, **there is no justification for a true “market value.”** Amortized Cost, which represents the amounts owed by the borrower, is the best measure of the value because it reports future return of capital to the Bank. **Any value, other than cost, would be misleading to investors because of the implication of an open market transaction.**”<sup>25</sup>*

This statement reflects the lack of understanding of how fair value measurements under Topic 820 are computed. A very small percentage, generally less than 10-15%, of any financial institutions assets are “marked-to-market” as this would imply a Level 1 measurement. A fair value computation of a loan held for investment where a ready market does not exist would be a Level 3 fair value measurement and would, therefore, never imply to investors an open market transaction exists for this financial instrument.

Fair value computations under Topic 820 require the maximum use of observable inputs but where observable inputs do not exist unobservable inputs are to be utilized and disclosed along with the techniques used to estimate fair value. The continued misapplication of the use of the term “mark-to-market” rather than fair value perpetuates these misconceptions. When considering the comment letters of those who are making such claims, the FASB should evaluate the merit of such arguments in light of the respondents’ misstatement of current U.S. GAAP requirements.

#### ***Arguing Against the Reliability of Fair Value Measurements or Application of Fair Value Accounting?***

When considering the reliability argument of those who may be unsupportive of the further extension of fair value as proposed in this Update, we note that the foundation of the argument is really an opposition to the fair value definitions and principles (i.e. exit value) as set forth in Topic 820, formerly SFAS 157, rather than the subject of this Proposed Update. Said differently, some who are unsupportive of the proposal are commenting upon an existing standard rather than the proposals set forth in the Update.

The position that suggests that all valuations which are not based upon an active quotable market are not reliable means that all Level 3 fair value measurements are not reliable and a significant number of Level 2 instruments (e.g. matrix priced securities) may not be reliable.

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<sup>25</sup> Comment Letter to FASB on Proposed Update; Jeff Davis Bank & Trust Company; Carly Leonards, Vice President & Chief Financial Officer; August 24, 2010.

We would observe that the debate about exit value as the relevant measure of fair value was previously considered and resolved with the adoption of SFAS 157. The Proposed Update is about the application of fair value measurement. In our view, some are debating the merits of SFAS 157 rather than the changes contemplated in the Proposed Update.

### **Conclusions Regarding Relevance & Reliability**

#### **Summary of Our Views**

We support the use of fair value measures because they are more relevant than historical cost measures which generally have no relation to current values and result in a lack of comparability between firms. Further, fair values represent economic reality and the values at which transactions actually take place. Through simple illustrative examples we have demonstrated how fair values are more decision-useful in investment decision-making and we find no empirical analysis which demonstrates that amortized cost is more effective for investment decision-making. Academic studies, surveys of analysts and market prices relative to book value demonstrate that fair values are relevant to investors and that investors adjust their analysis to incorporate fair values and that share prices consider them. Our conclusion is that such highly relevant measures should not be provided at a lag to the earnings release in the footnotes on a basis inconsistent with other fair value measures.

Our view is that even though historical cost measures are verifiable by comparing to source documentation that such verifiability does not make them reliable as they are not representationally faithful of current asset and liability values. The current financial crisis demonstrated: a) the lack of reliability of existing historical cost measures adjusted for impairments on an incurred loss basis, and b) that share prices were adjusted downward to account for the lack of reliability of book value measures. Our position is that existing estimation techniques for historical cost measurements exhibit reliability issues which opponents to fair value claim make fair value measures unreliable (e.g. the historical cost estimates also are Level 3 estimates). Fair value measures, however, are subject to a more consistent definition and elements of market discipline to observable inputs. We find that academic studies have demonstrated that fair values are relevant because they are reasonably and sufficiently reliable to be incorporated into share prices and that management can affect the reliability of fair value measurements through effective disclosures, strong internal controls and effective corporate governance. As a part of our consideration of reliability issues, we also evaluate fair value measurement opponents' position that they can develop highly reliable expected credit loss techniques but cannot reliably incorporate observable interest rate movements and liquidity discounts. We also find that there are numerous illustrations where fair value measurements – for identical financial instruments to which fair value would be extended on a routine basis by this Proposed Update – are already incorporated into the basic financial statements and believe users should question opponents claims that such fair value measures cannot be determined reliably as this assertion suggests that the reliability of their financial statements could be problematic.

We believe the exception provided in Topic 820 which allows loans to be “fair valued” on a basis other than fair value as defined under SFAS 157 (i.e. exit value) has complicated the advancement of this Proposed Update for certain investors because the impact of the movement from amortized cost to fair value is not perfectly transparent to them and their existing concern over the poor quality of disclosures translates to the use of fair value measurements for recognition purposes. However, we believe the recognition of such measurements in the basic financial statements will be a catalyst to improving the quality of these measurements.

Overall, we believe the issue before accounting standard setters is one of relative improvement in estimates, information quality, transparency and decision-usefulness in their decision to move toward fair value for financial instruments. The issue isn't one of perfect reliability or verifiability. Our view is that fair value can improve information quality, transparency and decision-usefulness.

Views on the Issue: What Other Informed Parties Have Said

We have reviewed the literature of those well informed on this debate and have excerpted the following observations on fair value versus amortized cost measurements. Particularly salient remarks are presented in bold.

Landsman (2007)<sup>26</sup> when considered measurement error in the context of considering the reliability of fair value measures made the following observation regarding fair value measures relative to historical cost:

*“Before leaving the discussion of measurement error, it is important to note that although fair value estimates of assets and liabilities likely contain measurement error relative to true economic values, so do historical cost-based book value estimates. **The key question for policy makers and academic researchers alike is whether fair value based financial statements improve information investors receive relative to information provided by historical cost-based financial statements. The overall conclusion from the research I review is that investors do indeed benefit from having access to fair value information.**”*

Barth et al. (2010)<sup>27</sup> makes the following comments regarding the relevance and reliability of fair value accounting:

*“The general tenor of the fair value criticisms is that fair value information, particularly in the context of the Financial Crisis, lacks sufficient quality to be informative to investors and other financial statement users. There is a substantial body of accounting research that addresses this criticism using a variety approaches, particularly value relevance. Value relevance is a particularly applicable approach to address the relevance and reliability of accounting information because an accounting amount is value relevant only if it is relevant to investors’ equity valuation decisions and sufficiently reliable to be reflected in share prices (Barth, Beaver, and Landsman, 2001). Landsman (2007) provides a survey of extant value relevance research relating to fair value accounting (see also Barth and Landsman, 1995; Barth, 2004, 2006). Studies that focus particularly on the value relevance of fair values for banks include Barth (1994), Bernard, Merton, and Palepu (1995), Barth, Beaver, and Landsman (1996), Beatty, Chamberlain, and Magliolo (1996), Eccher, Ramesh, and Thiagarajan (1996), and Nelson (1996). **Taken together, the fair value literature, including the studies that focus on banks, provides rather substantial evidence that recognized and disclosed fair values are relevant to investors and reliable enough to be reflected in share prices.**”*

The IMF in a 2009 Working Paper<sup>28</sup> concludes the following as it relates to fair value accounting and its application to financial institutions:

*“The paper finds that, while weaknesses in the FVA methodology may introduce unintended procyclicality, it is still the preferred framework for financial institutions. It concludes that capital buffers, forward-looking provisioning, and more refined disclosures can mitigate the procyclicality of FVA. Going forward, the valuation approaches for accounting, prudential measures, and risk management need to be reconciled and will require adjustments on the part of all parties.”*

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<sup>26</sup> Ibid 6.

<sup>27</sup> Ibid 8.

<sup>28</sup> Ibid 19.

In a presentation to the October 2009 Credit Risk Summit,<sup>29</sup> World Bank staff made the follow remarks regarding fair value accounting for loans which supports fair value over amortized cost:

- ***Fair value is the best (not the only) measure of financial instruments.***
- *Credit is intrinsic to fair value and must be incorporated.*
- *The International Bank for Reconstruction and Development (IBRD) fair valued all financial instruments including those done through current value.*
- ***Fair Value or Unfair Value: What difference does it make if an asset is held-to-maturity?***
- ***Fair value does not drive outcomes; it measures them.***
- *Not always a good measure for long-term health and regulatory capital. Use management discussion to highlight long-term health and link to fair value.*
- *Two-thirds of the \$3.4 trillion in global bank write-down between 2007 and 2010 will be due to loans which are not marked-to-market, turning sour (IMF, Reuters, 9/30/2000)*
- ***Reduce mixed attribute accounting: The mixed attribute model in IFRS and U.S. GAAP has embedded volatility and is pro-cyclical.***

The World Bank staff then went through their fair value methodology and made the following concluding remarks:

- *Relevance:*
  - ***Loans are not tradable, but associated credit risk can be traded and valued.***
- *Prudence:*
  - ***Is it prudent to value loans at par until impairment?***
  - *Potentially large profits or losses from re-marks.*
  - *We report FV from loans alongside other accounting measures.*
  - ***Increased transparency***
  - ***Forward-looking method***
- ***Feasibility:***
  - *World Bank has small number of borrowers with a large number of loans each.*
  - *Commercial Banks have a large number of borrowers with a small number of loans each.*
  - ***We can do it – and so can they!***

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<sup>29</sup> D. Ghosh & D. Bangert; *Fair Value – Sovereign Loans*; Presentation to the Credit Risk Summit; October 2009.

### **Mission and Member Views**

The CFA Institute has a long-standing practice of advocating for accounting standards which will enhance investment decision-making. As an organization which was founded on the principles of educating analysts and investors about sound financial analysis and investment decision-making, our charterholders<sup>30</sup> are major “users”, “investors” and ultimately “consumers” of financial information. Accounting which reflects economic reality and the provision of transparent financial information is at the foundation of sound financial analysis and investment decision-making. As such, we have been a participant in the process of commenting upon and advocating for accounting standard standards which are investor focused on behalf of our members since at least the 1970s. In formulating our positions we seek CFA Institute member input through surveys and working groups and develop our views and positions based upon a compilation of the views of our members, our advisory committee – the Corporate Disclosure Policy Council (CDPC) – and the CFA Institute staff. Our positions are not specific to an industry unless the standard being commented upon is industry specific.

Our position in support of fair value has been premised on our mission and member views over a period of at least twenty years. Member support for fair value has increased over that time with the increased reporting and use of fair value measurements. The significant increase in our global membership has not altered our member support for fair value and the financial crisis did not diminish support for fair value. Included at our [Summary of CFA Institute Member Surveys](#) which can be found on our website are excerpts from our member surveys before, during and after the financial crisis. It should be noted that our surveys are completed routinely in the normal course of informing our opinions and are not completed to serve any clients or commercial interests. Our surveys do not hand-pick participants and our survey reports convey the survey methods including our unbiased sampling methodology, response rate, and demographics of participants as well as the statistical relevancy of our results.

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<sup>30</sup> Administered by the CFA Institute, the Chartered Financial Analyst<sup>®</sup> (CFA<sup>®</sup>) Program is a graduate-level, self-study curriculum and examination program for investment specialists. To earn the CFA charter, you must successfully pass through the CFA Program which includes three comprehensive examinations which cover a broad-based curriculum with professional conduct requires to prepare charterholders for a wide range of investment specialties.

## Fair Value as the Relevant Measurement Basis for Financial Liabilities

Some argue that fair value for financial liabilities is not relevant and that contractual cash flows are a more relevant measure. Because financial liabilities are considered a “special case” by some, we articulate our perspectives on them separately in this section; however, we believe our basis for conclusions above relative to all financial instruments is equally relevant to financial liabilities. We support that all financial liabilities should be measured at fair value, both at inception and in subsequent periods, because we believe fair value measurements provide information which is decision-useful to investors.

We acknowledge that cash flow information related to financial liabilities is important and that some users, such as credit analysts whose predominant analytical focus is on contractual cash flows, want information regarding amortized cost and the contractual cash obligations associated with such liabilities. To accommodate such user’s needs we believe parenthetical or side-by-side disclosure should be required of the contractual cash flow amounts due. We do not, however, believe that this need for cash flow information supersedes the need for fair value information as the fair value information provides information on the relative cost of financing for an enterprise and the economic value of the liabilities – consistent with our view that the statement of financial position should reflect the value of assets and liabilities.

As a part of our IFRS Financial Instruments Accounting Survey (2009 FI Survey) conducted in November 2009 just subsequent to the release of International Financial Reporting Standard 9 (“IFRS 9”), *Financial Instruments: Classification and Measurement*, we asked members about their views on the appropriateness of fair value for financial liabilities. Of our approximately 630 respondents, 59% believed it was appropriate to fair value financial liabilities; 21% believed it was inappropriate and 20% were unsure. See [Summary of CFA Institute Member Surveys](#) which can be found on our website.

### ***Basis for Support for Fair Valuing Financial Liabilities***

Conceptually, the basis for our member support for fair valuing financial liabilities emanates from the following:

- a. *Decision-Useful Information Regarding Borrowing Costs* – Fair value information about liabilities provides useful information by telling users about the consequences of past decisions to borrow and the implications of current decisions to maintain or refinance a borrowing.

For example, information about fair value shows the effects of a decision to borrow using fixed-rate rather than floating-rate financial instruments. In addition, the value of a company that has locked in its funding costs at 5% is, in the long run, a better investment than a company with the same asset profile that has locked in its funding costs at 8%. Amortized cost information would provide no indication of the economic benefit of having locked-in this lower rate of funding. On an amortized cost basis, the original borrowing may be the same for the 5% and the 8% borrowing, but an investor in the entity with the 8% borrowing will experience a lower relative return as more of the enterprise’s cash resources will be used to pay debtholders before providing returns to shareholders in the future. Information about fair value, therefore, permits continuous reassessment of earlier decisions in light of current circumstances, and facilitates the decisions of capital providers regarding whether and how to allocate their resources to a particular entity, and whether and how to protect or enhance their investments. If only the amortized cost of the original borrowing is disclosed, users cannot see the relative benefit or detriment of the entity’s relative cost of funding.

- b. *Measurement Independent of Timing* – Fair value measures identical assets and liabilities at identical amounts, without regard to when those assets and liabilities were acquired. Failure to do so omits

information from the financial statements and is misleading. Entities that borrow at different times should similarly report those liabilities independent of when the amounts were borrowed.

- c. *Consistency Across Periods* – We believe that information that is relevant at inception should be similarly relevant for subsequent measurement purposes. When an entity borrows funds from an unrelated entity, the lender’s judgment about the credit paying ability of the borrower is explicitly incorporated in the interest rate charged in the transaction. The same evaluation is applied through the holding period and should be reflected in the valuation of liabilities. Consistency between initial and subsequent measurement yields comparable financial reporting information, a necessary ingredient of decision-usefulness.

***Example of Decision-Usefulness and Intuitiveness of the Fair Value of Financial Liabilities***

Many argue that the fair valuing of liabilities is counterintuitive, yet when the concepts of fair valuing of liabilities are explained to them in terms of their own home mortgage, they readily understand the concepts and find them difficult to refute. Consider the following examples:

*Example #1* – As a borrower you entered into 30 year mortgage for \$250,000 in 200X at an interest rate of 5%. In 200Y interest rates are now 8% for an instrument with similar credit and term to maturity. The fair value of the \$250,000, 30-year, 5% borrowing at the current rate of 8% would now be approximately \$166,000. In economic terms, a borrower would not refinance the mortgage because the cost of borrowing has risen and a borrower would not want to experience higher interest costs, and greater total cash outflows, in the future if they refinanced. In economic terms, the fair value of the existing obligation has decreased and the decision not to refinance has resulted in an economic gain of \$84,000 to the borrower’s personal net worth (equity) as they had locked-in cheaper funding.

*Example #2* – Now assume that a borrower entered into 30 year mortgage for \$250,000 in 200X at an interest rate of 7%. In 200Y interest rates are now 4.5% for an instrument with similar credit and term to maturity. The fair value of the \$250,000, 30-year, 7% borrowing at the current rate of 4.5% would now be approximately \$352,000. In real economic terms, a borrower would seek to refinance the mortgage because the cost of borrowing has decreased and a borrower would experience lower interest costs, and lower total cash outflows, in the future if they refinanced. In economic terms, the fair value of the existing obligation has increased and the decision not to refinance has resulted in an economic loss to the borrower’s personal net worth (equity) of \$102,000 should they chose not refinance. Empirically, it is clear that borrowers understand these economics as when interest rates fall they seek to mitigate such higher interest costs, and potential lowering of their net worth, by refinancing. Similarly, as in Example #1 when rates rise they do not refinance. We see this behavior exhibited continuously in the marketplace.

*Example #3* – Assume the same scenario as Example #2 except that the borrower cannot refinance because the borrower is currently unemployed and banks will not lend to the borrower at this time – or will not lend to the borrower at the same relative interest rate because of the increased risk of default. Assume that the interest rate for this lower credit borrowing would be 10%, rather than the original 7% or the 4.5% which would currently be charged if there had been no change in creditworthiness. The fair value of the \$250,000, 30-year, 7% borrowing at the current borrowing rate of 10% would now be approximately \$180,000. The borrower’s personal equity will be lower relative to other borrowers whose credit quality did not change by \$102,000 (\$352,000 vs. \$250,000) but higher by \$172,000 (\$352,000 vs. \$180,000) because they locked-in a lower cost of financing before their change in credit quality. The net result is an economic gain to the borrower of \$70,000 because a borrower in this situation would not refinance at this time.

While simple examples, the concepts are ones to which typical individuals and consumers of financial information can relate. They also illustrate the concepts of the decision-usefulness of fair value information and are equally relevant to equity investors making decisions to invest or allocate capital to businesses. While some may view liability gains or losses as being counterintuitive – particularly as the relate to gains originating from deteriorating credit – we agree with the line of reasoning that measuring and financial liabilities at fair value conveys important information regarding the effective interest rate of

borrowings and refinancing requirements, as well as analyzing the overall financial strength of a company. Gains and losses on financial liabilities also provide insight on the wealth transfer that has occurred from bondholders to shareholders. Further, such fluctuations and financial liability values may offset changes in the fair value of assets, providing a natural hedge during periods of economic volatility.

***Consideration of the Concerns Regarding Measurement of Financial Liabilities at Fair Value and the Inclusion of Own Credit Risk in the Measurement of Financial Liabilities***

We believe that the fair value of all financial assets and liabilities should capture all elements of market price changes, and this includes the credit risk of the entity. Credit risk is an integral and necessary part of fair value reporting of liabilities – as we showed in the simple home mortgage example above. We disagree with the view that any approach that excludes credit risk is an acceptable alternative to fair value measurement. We are aware, however, that the inclusion of credit risk in the fair value of liabilities remains one of the most debated aspects of fair value accounting. The following addresses concerns regarding the fair valuing of liabilities broadly, and the inclusion more specifically of credit risk, in measuring the fair value of a liability:

- a. ***Concerns Regarding Realization*** – Opponents of recognition of fair valuing of liabilities and the inclusion credit risk changes contend that low tradability and counterparty constraints associated with liabilities make their realization or monetization unlikely, hence any profit is essentially ‘theoretical’. However, there is observable market evidence<sup>31,32,33,34</sup> that discounted liabilities have actually been repurchased and resulted in a gain for the issuer. While it is true that an entity that redeems its liabilities might still need to refinance at a higher cost of borrowing – which over future periods would deplete any realized gains – an economic gain exists whether realization occurs or not. Realization is not a critical event in the accounting for assets, nor should it be for liabilities. If the entity did not redeem the obligation, it is still enjoying a lower cost of funding than would be the case if it were to replace the liability and therefore benefits from an economic holding gain.

<sup>31</sup> Spooning, A.; *Spreading Fear*; Risk Magazine; August 5, 2009. The article notes that during 2008 and 2009, Royal Bank of Scotland, Standard Chartered and UBS bought back bonds demonstrating the ability to crystallize unrealized gains.

<sup>32</sup> Ford Motor Company (“Ford”) engaged in a series of external and internal debt repurchases which resulted in a nearly \$4.7 billion gain for the year ended December 31, 2009. See Notes 1,19 and 20 to Ford’s 2009 Form 10K.

<sup>33</sup> Arndt, M.; *More Companies Bet on Bond Buybacks*; Bloomberg Businessweek; June 24, 2009. The article notes:

*“Now some companies are using their piggy banks to repurchase something else: their own debt. Newspaper publisher McClatchy for instance, said on June 18 that creditors that are owed \$102.4 million have agreed to swap their notes for cash and new notes paying 15.75% interest. McClatchy’s buyback offer follows bond repurchases at such firms as Harrah’s Entertainment and Kaiser Permanente. Investors have often benefited from stock buybacks because they reduce the number of shares outstanding and therefore raise earnings per share. **Debt repurchases should have the same effect because they reduce a company’s debt-to-capital ratio and delay repayment burdens**, which in turn might help the company avert default or bankruptcy, says Vicki Bryan, a senior high-yield analyst with Gimme Credit. **When Sacramento-based McClatchy proposed in May retiring \$1.15 billion in junk-rated debt, its share price leaped 30%. Similarly, Las Vegas Sands’ stock jumped in value in March, when the company said it was looking into buying back part of its debt. But while shareholders may gain, creditors can’t always count on coming out ahead. Companies typically buy back debt at steep discounts—McClatchy is offering only 18¢ to 33¢ on the dollar—which means big losses on investments. Moreover, replacement debt may not come due for years, exposing lenders to further risks. McClatchy’s new notes, for example, wouldn’t mature until 2014..... Although the debt deals aren’t pitched to them, shareholders have good reason to want them to succeed. **Bond buybacks could keep companies afloat, giving their stock some value. And in bankruptcy, equity is almost always wiped out.**”***

<sup>34</sup> *Four Companies Buying Its Own Debt*; Investopedia; February 18, 2009. Article described debt buybacks of Xilinx, Amkor Technology, Autonation, and CIT Group.



Moreover, we note that gains associated with credit risk changes can be effectively realized using credit derivative instruments<sup>35,36</sup> as opposed to redemption of cash bonds.

In addition, we note that events and circumstances beyond management’s control may create a need to transfer or settle the financial instrument. Therefore, even if management has no immediate plans to transfer or settle the liability, it is useful for users of financial statements to know the potential effects of such events and transactions.

- b. Decision-Useful Information Regarding Asset Quality – Fair value information regarding liabilities can also provide, in some cases, information on the deterioration of asset values. Gains rooted in credit deterioration provide an important signal to investors about a firm’s future creditworthiness, and underscore their need to assess asset and earnings quality, especially when significant asset classes are measured at historic cost. They can also result in a better accounting match.
- c. Counterintuitive Results – Some maintain that remeasurements – particularly resulting from changes in credit standing produce income statement effects that are counterintuitive. This is probably the most common objection – the entity reports gain when its financial strength deteriorates and a loss when its financial strength increases. (i.e. See previous illustrative example.) The relevance of this concern continues to be in the spotlight especially as a number of financial institutions have recently reported gains related to liabilities under deteriorating financial and economic conditions. We note the following remarks in a comment letter submitted to the FASB in connection with the Proposed Update<sup>37</sup>:

*“We also believe the marking to market of a company’s own debt and structured notes currently creates confusion (FAS 157 and 159), with investors typically backing out these adjustments. As written, it appears **that a company’s debt is worth the most the day before bankruptcy, yet the amount owed never changes.**”*

This quote highlights the misunderstanding of own credit. The quote indicates that the “debt is worth the most the day before bankruptcy”. This statement is, in fact, inaccurate. The day before bankruptcy the debt will be discounted at an extremely high discount rate making it worth very little (i.e. a debt instruments value is inversely related to interest rates) – accurately portraying that the debtholders will, in fact, not receive a return of their principal. The financial statements will also accurately reflect the fact that equityholders will recognize a gain reflecting the relief to be received in bankruptcy by the discharge of the debt. The results are actually very intuitive, but the quote reflects the misunderstanding by analysts, other users, preparers and auditors of the economics which are accurately being portrayed in the financial statements. On an amortized cost basis, the day before bankruptcy the debt holders would still believe their debt would be worth the original principal balance. In such a scenario amortized cost is unreliable.

As we have noted previously, this effect is only counterintuitive when financial statements are (incorrectly) viewed as reflecting some sort of amorphous view of an entire entity. If financial statements are viewed as presenting the position of existing shareholders, a decrease in

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<sup>35</sup> MetLife Inc. in connection with certain Collateral Financing Arrangements (See Note 12 to Consolidated Financial Statements in the 2009 Form 10K) has entered into total rate of return swaps in connection with certain borrowings where a decline in MetLife Inc. credit (i.e. economic gain to shareholders) will result in payment to swap counterparty (i.e. economic loss to shareholders). This is effectively a crystallization of deterioration in own credit.

<sup>36</sup> *The Wild and Crazy World of Self-Referenced Credit*; Seeking Alpha; May 13, 2009. Article discusses how synthetic debt repurchases can be effectuated.

<sup>37</sup> Jason M. Goldberg; Barclays Capital (Equity Research); *Our Comment Letter to FASB on Its Recent Mark-to-Market Proposal*; August 30, 2010.

creditworthiness is effectively a wealth transfer from bondholders to stockholders – as illustrated by the interpretation of the quote above. That is, every downgrade in credit standing increases the value of the shareholders' claims and decreases the value of the lenders' claims (and vice versa for an increase). This wealth transfer is exactly what the income statement should communicate.

- d. *Accounting Mismatch* – Finally, we note that another common objection to including credit risk is that it exacerbates an “accounting mismatch” when certain assets, such as intangible assets, are not measured at fair value. However, we believe that the primary question should be what is the right accounting for liabilities, and the answer should not be constrained by sub-optimal accounting (i.e. mixed measurement attribute) for certain assets.

In addition, we believe that in some situations, the fair value measurement of financial liabilities can reduce the volatility in earnings that can arise from the mixed attribute system. Although the timing may not be coincident, the recognition of liability gains may offset recognized asset losses and provide a better depiction of aggregate economic reality across the asset-liability portfolio. In other words, it effectively dampens the exaggeration of earnings volatility that would arise if only financial assets were accounted for on a fair value measurement basis.

- e. *Cash Flows and Amortized Cost Reflect the True Liability* – Those opposed to the measurement of financial liabilities at fair value indicate that the amount of the liability should reflect what is owed and not incorporate changes in own credit (due to changes in prices of credit or credit standing). We do not contest that in evaluating liquidity that cash flow information related to liabilities is important, but investors need to know the relative cost of borrowings and amortized cost does not provide this information. As liabilities approach maturity they will reflect the amount owed and investors during the term of the borrowing should be investing with knowledge of the relative cost of borrowing.

Further, if you extend the opposition's reasoning to other liabilities their logic/argument would suggest that pension liabilities should not be discounted but reflected at the promised/committed payments as they are accrued and discount rates should not be adjusted each year. Similarly, insurance obligations should not be discounted or updated for discount rates – which is, a direction opposite the Insurance Contracts Project which is moving closer to fair value and updating discount rates.

### *Surveys*

As a part of our 2009 FI Survey conducted in November 2009 just subsequent to the release of IFRS 9, we asked members about their views on the appropriateness of the inclusion of own credit in the measurement of financial liabilities. Of our approximately 620 respondents, 32% believed it was appropriate to include own credit; 32% believed it was inappropriate and 37% were unsure regarding the inclusion of own credit. See [Summary of CFA Institute Member Surveys](#). Based upon the comments received and the outreach we have done, this level of uncertainty stems from the need for greater education regarding the impact of own credit and the ability to realize the gains, the counterintuitive nature of the results and the nature of the asset/liability information content associated with the measure. Overall, we believe greater education regarding these credit risk matters will enhance user understanding and acceptance of these measures.

The IASB in its consideration of financial liabilities considered the issue of own credit. In Agenda Paper 2A prepared for the February 10, 2010 IASB meeting, the results of their survey on own credit were discussed. We find the comments conveyed more telling than the respondent percentages and more reflective of our position on this issue. For example, one user respondent remarked in their response to the question regarding whether analysts exclude own credit gains and losses from performance measures:

***“Own credit needs to be disaggregated because it communicates an important change in company’s standing. I believe this GAAP measure has meaning and should be clearly labelled “own credit gain/loss” If analysts exclude it from pro forma earnings, that does not mean they are not using this number, it just means that it has more of one-time nature that would be put aside in analysis of normalised earnings. Just because it does not make it into the normalised earnings numbers does not mean it is not being used.”***

### **Academic Research**

The research on the fair value of liabilities and its impact on equity and equity returns and relevance of such fair value measurements to accounting standard setting is more limited than the research associated with the fair valuing of assets. One of the most relevant pieces of work was done by Barth et al (2008)<sup>38</sup>. The research tests the predictions of Robert Merton's (1974) theory that the equity value of an enterprise is a call on the value of its assets and value of its debt is the strike price on that the call option. Said differently, if the value of the debt decreases the in-the-money value of the call (equity) should rise. However, the value of the assets is simultaneously declining resulting in the decrease in the value of the equity. The research finds that own credit risk does mitigate the decrease in equity returns caused by a decreasing value of the assets. Alternatively said, the value of equity benefits from the decrease in the value of debt. Excerpted below are the findings of Barth et al (2008):

This study tests whether equity value reflects gains and losses associated with changes in the value of debt, consistent with predictions of Merton (1974). It contributes not only to the extant debt and equity valuation literature, but also to the debate about using fair value accounting for liabilities. ***If fair values were recognized, then firms experiencing increases in credit risk would recognize gains because increases in credit risk result in decreases in debt value; the opposite would be the case for firms experiencing decreases in credit risk. These outcomes are counterintuitive to some—they contradict the views that debt holders of solvent firms are insulated from declines in the firms' economic fundamentals because debt has priority over equity, and that equity holders are the sole beneficiaries of firms' upside potential.***

**Consistent with prior research, we find that equity returns are significantly negatively related to changes in credit risk. More importantly for our research question, we find that the relation between credit risk change and equity returns is significantly less negative when the firm has more debt. This result is consistent with debt holders sharing in wealth increases and subsidizing wealth decreases. When we consider separately upgrade and downgrade firms, we find that equity returns for downgrade firms are significantly less negative when the firm has more debt, and we find the opposite for upgrade firms.** Our findings hold for all credit risk groups, except for firms downgraded within investment grade and upgraded to investment grade. Thus, equity increases associated with increases in credit risk are evident for a broad cross-section of firms, including quite solvent firms. As an alternative way to link equity value changes and debt value changes associated with credit risk changes, we calculate the gain or loss arising from change in debt value associated with a firm's change in credit risk and use it in our estimating equation in lieu of the credit risk change and debt interaction variable. **Consistent with our primary findings, we find that the gain or loss is significantly positively associated with equity returns. We also find that the effect we document is associated with changes in systematic risk, as reflected in changes in equity cost of capital, and changes in expected cash flows, as reflected in analyst earnings forecast revisions.**

***Our findings link and empirically document the existence of two countervailing equity value effects associated with increases in credit risk: (1) decreases in equity value, presumably arising from decreases in asset value, and (2) increases in equity value associated with decreases in debt value, presumably arising from decreases in asset value or increases in asset risk. These findings indicate that changes in debt value are associated with predictable and measurable effects on changes in equity value.***

Establishing that changes in debt value arising from changes in credit risk are associated with changes in equity value for a broad sample of primarily solvent firms indicates that such debt value changes are component of firms' economic income. **Because faithful representation of firms' liabilities and income is consistent with the conceptual framework underlying financial reporting, our results indicate that debt value changes are candidates for inclusion in firms' accounting income.** Thus, we provide evidence on what firms' reported net income would be if changes in debt value were recognized in order to inform the accounting debate about recognizing in net income such changes. We do this by inverting the Merton (1974) model to obtain an estimate of each firm's asset and debt value and asset volatility.

*We find that upgrade firms would recognize higher net income than they do under current accounting standards if all changes in debt and asset values were recognized, and downgrade firms would recognize*

<sup>38</sup> Barth, Mary E., Hodder, Leslie D., Stubben, Stephen R.; *Fair Value Accounting for Liabilities and Own Credit Risk*; The Accounting Review; 2008.

*lower net income. This is consistent with firms' unrecognized asset value changes exceeding their unrecognized debt value changes. As one would expect, we also find that if only unrecognized changes in debt value were recognized, on average, upgrade firms would recognize lower net income and downgrade firms would recognize higher net income. However, we find that for downgrade firms recognized asset write-downs are larger, on average, than unrecognized gains from decreases in debt value, which mitigates the concern that debt value decreases would exceed recognized contemporaneous asset value decreases. Because this does not hold for all downgrade firms, the concern is not unwarranted for some firms. Our results suggest that anomalous effects on net income more likely arise from the failure to recognize all changes in asset values, than from the recognition of changes in debt values.*

### ***Fair Valuing Financial Liabilities is Relevant***

Consideration of the decision-usefulness and the counter arguments to fair valuing financial liabilities along with academic research illustrates that such fair value information for liabilities is relevant to investors.