Certified General Accountants Association of Canada

Issue in Focus

Fair Value Accounting: The Road to Be Most Travelled

By Rock Lefebvre, Elena Simonova and Mihaela Scarlat

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December 2009

Sponsored by the Certified General Accountants Association of Ontario

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Executive Summary

The use of fair value accounting has gained momentum and has proven to attract a level of attention rarely witnessed in the annals of accounting practice. One of the driving forces is the belief endorsed by some that fair value accounting initiated and aggravated the recent credit crisis. In light of these circumstances, it is considered timely to advance awareness in relation to fair value accounting and to clarify the competing arguments in favour of, and against, the use of fair value rules. As the following pages reveal, it can be reasonably contended that:

- At present, the global financial system does not embody a common set of accounting standards governing fair value measurement of assets and liabilities. The two critically important accounting systems – U.S. GAAP (*generally accepted accounting principles*) and IFRS (*international financial reporting standards*) – converge but do not fully do so in the matter of fair value measurement.

- Only certain assets and liabilities are required to be measured at fair value. The degree to which unrealized gains and losses associated with fair value measurement are reflected in the financial statements also depends on the intended use of assets and liabilities in question.

- Certain concerns of fair value measurement (particularly Level 3 inputs) present in the form of subjectivity and bias. However, Level 3 instruments constitute only a small proportion of assets and liabilities of the balance sheets of financial institutions in the U.S., Europe and Canada.

- The two main arguments against fair value accounting – exacerbated procyclicality and increased volatility of the financial statements – are amply counterbalanced by arguments in favour of fair value accounting. The latter includes the significance of limitations associated with historical cost accounting, increased relevance of information presented to investors and lower expected likelihood of earnings management under fair value accounting.

Taken together, these assertions lead us to affirm that fair value accounting imparts an appropriate direction forward given the speed of the globalization of capital markets and the increasing complexity of financial instruments in use today. The fact of the matter is that as imperfect as fair value accounting may be considered, we can appreciate that the historical cost model is likewise imperfect and that its defectiveness has become increasingly germane as the financial market environment evolves. In turn, the shortcomings of fair value accounting may well be mitigated by further fine-tuning of regulations and accounting standards.

Introduction

Beginning with fiscal years starting on or after January 1, 2011, Canadian publicly-accountable enterprises are required to report under International Financial Reporting Standards (IFRS).

Inherent to the adoption of the international regime, the use of fair value accounting – also referred to as "mark-to-market" accounting – has both gained impetus and notoriety. Scorned by many for exacerbating the 2008 financial crisis, fair value convention has polarized two opposing views – the first, that fair value accounting compounds economic hardship and distortion – and the second, that fair value accounting affords an accurate rendering of the market value of underlying assets and liabilities.

Oftentimes lost in the public debate is the recognition that fair value accounting applies to a number of areas outside of the financial instruments that have monopolized much of the current debate. That is, accounting rules for reporting financial instruments and impairment of assets has been under continual scrutiny whereas fair value rules regarding property, plant and equipment, contingent liabilities and contingent assets, investment properties, and agriculture have, for example, received respectively less attention.

Proponents and opponents of fair value accounting alike can reasonably be expected to exercise influence in this important matter. Essentially, we can appreciate that we will be proportionally predisposed to the merits and challenges posed by the fair value approach in large part depending on the markets in which we operate, the roles that we play, and the timing of events. Most importantly, we must comprehend the concept of fair value accounting and understand also what fair value rules purport to accomplish. To that end, this paper intends to increase awareness regarding fair value accounting and to clarify some of the underlying arguments.

Fair Value Accounting – An Overview

The recognition and measurement of financial assets and liabilities at fair value is not a new concept. Companies were using terms such as *current values* or *appraised values* for assets as early as 1925; long before elaborate accounting standards for fair value measurements were developed. Admittedly, it has received more exposure in the last couple of years due to increased standards-setter support, market propensity, and the link made by some to the recent credit crisis. In understanding the concept of fair value, three interconnected elements – the regulatory framework governing fair value, the definition of fair value, and valuation techniques used – are germane to our review.

Regulatory Framework for Fair Value

Fair value, as with other accounting constructs, is governed in large part by a set of accounting standards. In the past, most countries developed their own jurisdictional Generally Accepted Accounting Principles (GAAP) creating a fairly straightforward choice of the regulatory framework governing the preparation of financial statements – i.e. little choice but local GAAP. The late 1990s and the early 2000s though witnessed a swift shift from using local, country specific accounting principles, to adopting a globally accepted set of standards – International Financial Reporting Standards (IFRS). At present, some 112 countries use IFRS, with Canada, Japan, India, Brazil and Korea set to adopt IFRS by 2011 or sooner. The market capitalization of exchange listed companies in countries that have moved or plan to move to IFRS is estimated to be $U.S. 13.4 trillion or approximately 31% of the global market capitalization.[1]

Although a large number of countries view IFRS favourably, it is not necessarily the case in the U.S. In late 2008, the U.S. Securities and Exchange Commission published for comment a roadmap proposal for the potential use of financial statements prepared under IFRS by U.S. issuers. However, few practical steps have been taken since then to advance the adoption of IFRS in the U.S. and some observers are fairly pessimistic about the U.S. prospect of IFRS adoption.[2] At the same time, the U.S. remains an important economic and financial power accounting for a lion's share of the global market capitalization. When speaking of fair value accounting, the importance of the U.S. and IFRS-adopted countries to the global financial market creates a necessity to consider fair value as it pertains to both U.S. GAAP and IFRS.

1 U.S. Securities and Exchange Commission (2008). *Report and Recommendations Pursuant to Section 133 of the Emergency Economic Stabilization Act of 2008: Study on Mark-To-Market Accounting*, p. 20.

2 See, for instance, Johnson, S. (2009). *Simplified Reporting: Forgotten in the Crisis?* CFO Magazine, August 12, 2009. Available at http://www.cfo.com/article.cfm/14209682/1/c_2984368?f=search, accessed September 3, 2009.

In the U.S., fair value accounting has been part of GAAP for more than 50 years; however, the standards-setting history of fair value accounting is somewhat shorter. The first guidance was issued by the Financial Accounting Standards Board (FASB) in 1975 requiring marketable securities to be recorded at fair value. The original standard was complemented and extended on a number of occasions (i.e. in 1991, 1993, 1998 and 2006) shifting the focus on marketable securities to disclosing financial instruments in a company's financial statements, to valuating debt and equity securities that are held for trading or sale, to requiring the changes in fair value to be recognized in the income statement or other comprehensive income, and to the requirement of derivatives to be measured at fair value. In 2006, the FASB issued a new accounting standard (SFAS 157 – *Fair Value Measurement*) that specifies how fair value is to be defined, measured and disclosed when it is required by another standard.[3] One more step in the evolution of fair value standards may be expected in the near future if the FASB approves the exposure draft[4] on fair value measurement issued in August 2009.[5]

In the early 2000s, the International Accounting Standards Board (IASB) began to publicly favour the use of fair value accounting in financial reporting; reflecting this shift in a number of its accounting rules. At present, IASB standards that apply the concept of fair value include IAS 39 – *Financial Instruments: Recognition and Measurement*, IAS 32 – *Financial Instruments: Disclosure and Presentation,* IAS 36 – *Impairment of Assets*, IAS 16 – *Property, Plant and Equipment*, IAS 37 – *Provisions, Contingent Liabilities and Contingent Assets*, IAS 40 – *Investments Properties*, IAS 41 – *Agriculture*, IFRS 2 – *Share-based Payment*, IFRS 3 – *Business Combinations*, IFRS 7 – *Financial Instruments: Disclosures, and IFRS 9 – Financial Instruments.*

What is an Accounting Standard?

Accounting standards specify how transactions and other events are to be recognized, measured, presented and disclosed in financial statements. Accounting standards are developed through an organized standards-setting process and issued by recognized standards-setting bodies.

Accounting standards-setting bodies most relevant to Canada:

- ***International Accounting Standards Board (IASB)*** is an independent standards-setting body responsible for development and harmonization of the International Financial Reporting Standards (IFRS). Accounting standards issued by the IASB are branded as "IAS" or "IFRS".
- ***Financial Accounting Standards Board (FASB)*** is the designated organization in the U.S. private sector for establishing non-governmental U.S. generally accepted accounting principles (GAAP). Accounting standards issued by FASB are branded as "SFAS".
- ***Canadian Accounting Standards Board (AcSB)*** is an independent body responsible for developing and establishing standards and guidance governing financial accounting and reporting by Canadian companies and not-for-profit organizations.

3 Center for Audit Quality (2008). *Fair Value Accounting – Fact Sheet.* Available at http://centerforauditquality.com/newsroom/pdfs/CAQ_Fair_Value_Accounting_Fact_Sheet.pdf, accessed September 2, 2009.

4 An exposure draft is a preliminary release of a statement by the accounting standards-setting body, which offers the text of the proposed statement for comment. The official statement, which may be modified as a result of the consultative process, is typically issued after comments are received and analysed.

5 Financial Accounting Standards Board (2009). *Fair Value Measurements and Disclosures (Topic 820) - Improving Disclosures About Fair Value Measurements,* Exposure Draft, August 28, 2009.

Unlike SFAS 157 though, the IASB's standards currently in force do not contain comprehensive guidance on fair value measurement, but rather deal with it on a standard-by-standard basis.[6]

The Concept of Fair Value (Current Practice)

Simply stated, fair value accounting represents the revaluation of unsold assets and liabilities to market prices on a regular basis. It primarily applies to financial assets and liabilities however, three major groups of non-financial assets – property, plant and equipment, investment property, and intangible assets – are also subject to fair value measurement under certain circumstances.

In more technical terms, SFAS 157 defines fair value as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date".[7] IFRS, in turn, stipulates that fair value is "the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction (with some slight variations in wording in different standards)".[8] These definitions are thought to be fairly well converged whereas the few discrepancies that remain may be summarized as follows:[9]

- The definition contained in SFAS 157 is explicitly identified as an exit (selling) price implying that the expectations of future economic benefits associated with assets and liabilities are determined by selling price. The IFRS's definition, in turn, is neither explicitly an exit price nor an entry (buying) price which recognizes that entry and exit prices may differ if the buying and selling transaction takes place on different markets.

- SFAS 157 explicitly refers to market participants, i.e. buyers and sellers participating in the principle market for the asset or liability. The IFRS definition,

Selected Definitions

Exit price is the price received to sell the asset or paid to transfer the liability.

Entry price is the price paid to acquire an asset or received to assume a liability.

Hypothetical transaction recognizes the fact that the transaction to sell the asset or transfer the liability does not have to take place.

Orderly transaction assumes exposure to the market for a period before the transaction takes place to allow for marketing activities that are usual and customary for the transaction. It is not a forced liquidation or distress sale.

Measurement date requires that fair value be reported as of the measurement date, irrespective of the market fluctuations or whether the market is active or inactive.

Arm's length transaction is a transaction between parties that do not have a particular or specific relationship that makes price of the transaction uncharacteristic of market conditions.

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6 In May 2009, IASB issued an exposure draft on fair value measurement which aims to define fair value, establish a framework for measuring it and requirements for disclosures of fair value measurements. If the draft standard is adopted, it may mitigate the current issue of IFRS guidance on measuring fair value being diffused across a number of standards.

7 Financial Accounting Standards Board (2006). *Statement of Financial Accounting Standards No. 157 – Fair Value Measurements,* p. 6.

8 International Accounting Standards Board (2006). *Discussion Paper: Fair Value Measurements. Part 1 – Invitation to Comment,* p. 8.

9 Based on the issues discussion presented in International Accounting Standards Board (2006). *Discussion Paper: Fair Value Measurements. Part 1 – Invitation to Comment,* p. 8-28.

in turn, refers to knowledgeable, willing parties. This puts greater emphasis on the fact that the buyer/seller is motivated but not compelled to enter the transaction.

- For liabilities, the definition of fair value in SFAS 157 rests on the notion that the liability is transferred (the liability to the counterparty continues), whereas the definition in IFRS refers to the amount at which a liability could be settled between knowledgeable, willing parties in an arm's length transaction.

In the past several years, substantial effort has been dedicated by both the IASB and the FASB to achieve greater convergence of U.S. GAAP and IFRS in order to minimize or eliminate differences in accounting standards. This may serve effectively to diminish even further the differences in the accounting standards on fair value accounting. In May 2009, the IASB issued its exposure draft on fair value which aims to clearly articulate measurement objective, to improve standardized measurement hierarchy, and to enhance disclosure. If adopted in its current form, the new IASB standard will use a fair value definition identical to that used by SFAS 157.[10]

Only certain assets and liabilities are required to be measured at fair value. The extent to which financial assets and liabilities are required to be measured at fair value depends on the characteristics of the financial instrument, its legal form, the intended use of the instrument, and, in some cases, the industry in which the reporting company operates. For instance, SFAS 157 requires fair value measurements to be applied to such financial instruments as investments in equity securities for which fair value is readily determinable, investments in debt securities classified as held-for-trading or available-for-sale, direct investments in loans held-for-sale, and derivative assets and liabilities. Fair value measurement is also required for assets that are considered to be impaired (i.e. their market value is less than that reported on the balance sheet), or need to be tested for impairment of their value.

Among non-financial assets, SFAS 157 requires fair value accounting to be used for assets and liabilities acquired through a business acquisition. As well, long-lived assets, such as property, plant, and equipment, and finite-lived intangible assets should be written down to fair value when the expected cash flows to be generated by these assets are less than the carrying value.[11] Under IFRS, assets and liabilities requiring fair value measurement are substantially converged to those prescribed by FASB standards.

10 International Accounting Standards Board (2009). *Fair Value Measurements.* Exposure Draft, ED/2009/05, p. 13.

11 U.S. Securities and Exchange Commission (2008). *Report and Recommendations Pursuant to Section 133 of the Emergency Economic Stabilization Act of 2008: Study on Mark-To-Market Accounting,* p. 25-33.

We should remind ourselves that the purpose of financial reporting is to provide the users of the financial statements with reliable and relevant information. Although, the "users" of the financial statements are primarily understood to be the providers of capital such as investors and lenders, users also include regulators, suppliers, bargaining units, and management representatives who are likewise affected by the use of fair value accounting.

Financial statements are the primary source of financial information for external users. As such, the way gains and losses associated with fair value measurement are reflected in the financial statements becomes critically important. The reflection of unrealized changes in fair value, in turn, depends on the intended use of the financial instrument.

Financial instruments are usually designated in four categories according to their intended future use: (i) Loans and Receivables, (ii) Held-for-Trading, (iii) Available-for-Sale, and (iv) Held-to-Maturity. Depending on the category, gains and/or losses in value of financial instruments measured at fair value will have different impacts on financial statements. For instance, changes in the value of hold-for-trading assets will affect the income statement directly through either profit or loss. In turn, gains and losses in available-for-sale assets are not considered realized until such assets are sold. Consequently, changes in the value of assets do not trigger recognition until then and flow through the *Other Comprehensive Income* (or equity) section of the balance sheet.

Valuation Techniques for Fair Value

Both SFAS 157 and the exposure draft issued by IASB in May 2009[12] recognize that active markets may not always exist in order to identify a market price for the specific asset or liability. Instead, the standards establish a hierarchy that prioritises the relative reliability of the inputs that may be used in valuating fair value. The fair value hierarchy consists of three levels and gives the highest priority to the most reliable inputs – quoted prices in active markets for identical assets or liabilities (Level 1), whereas the lowest priority is assigned to unobservable inputs (Level 3) which are received as the least transparent and objective.

Fair value methodology suggests that for liquid assets and liabilities – those for which quoted prices in active markets for identical assets/liabilities can be accessed – these quoted prices (unadjusted) should be used to measure the fair value (Level 1 inputs). For the market to be viewed as active, transactions for assets or liabilities should take place with sufficient frequency and volume, and quoted prices should be available from, for instance, an intermediary such as an exchange, a dealer, an industry group or pricing service.

12 International Accounting Standards Board (2009). *Fair Value Measurements.* Exposure Draft, ED/2009/05.

If Level 1 inputs are not available, preparers are directed to use Level 2 or Level 3 inputs. Level 2 posits that valuation is based on inputs observed in markets such as quoted prices for similar assets or liabilities in active markets, and other relevant market data. Two types of valuations are typically distinguished within Level 2: (i) adjusted mark-to-market relies on quoted market prices in active markets for similar items, or in inactive markets for identical items; (ii) mark-to-model valuation uses such inputs as yield curves, exchange rates, empirical correlations, etc. In either of these cases, Level 2 valuation strives to moderate reliance on company estimates.

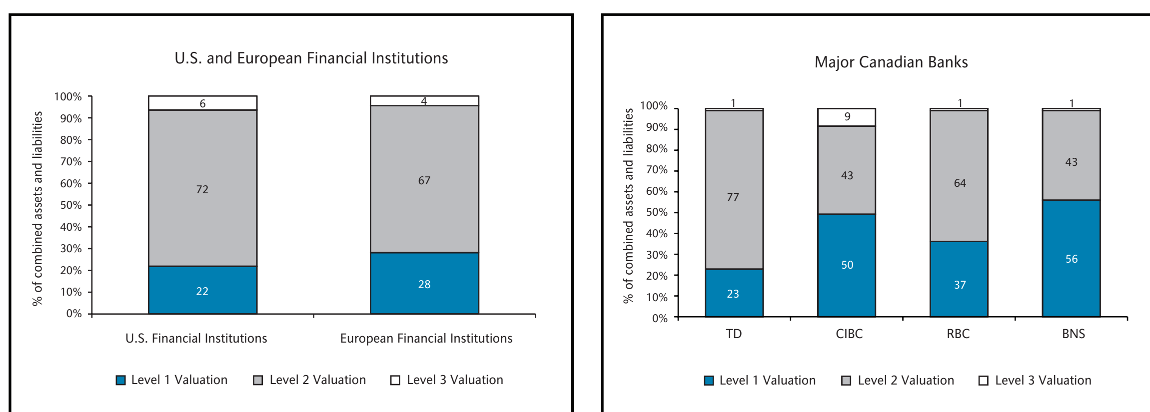
When there is little or no market activity for assets or liabilities in question (i.e. observable inputs are not available), Level 3 valuation is used. At Level 3, fair value is estimated with a valuation model that reflects how market participants would reasonably be expected to price the instrument should the transaction take place. As such, Level 3 measurements use a mark-to-model value that is based in large part on the company's own assumptions about pricing that market participants would assign to the asset or liability.

Although the hierarchical structure of fair value valuation techniques makes it easier for the reader of financial statements to navigate through the structure of the financial items, certain measurement concerns exist regarding the subjectivity and biasness that may be easily introduced with Level 3 valuation. Full disclosure of information about the valuation process and sensitivity of measurement results to changes in the model assumptions becomes particularly important in this case.

Although disclosure concern for Level 3 valuation is legitimate, it is somewhat mitigated by the insignificance of the weight that Level 3 instruments comprise in the total assets and liabilities measured at fair value. For instance, as seen from Figure 1, financial institutions in the U.S. and Europe place only a small proportion of their assets and liabilities in Level 3 instruments. In turn, institutions' balance sheets were heavily represented in Level 2 financial instruments at fiscal year-end 2007 whereas liquid assets and liabilities constituted around one third of all financial instruments measured at fair value. The favourable attitude towards Level 2 instruments is thought to be fuelled by the flexibility accorded by mark-to-model valuation techniques.[13] The balance sheets of the Canadian major banks showed an even lesser reliance on Level 3 instruments whereas all shown banks but TD had a very substantial proportion of their financial instruments in liquid assets and liabilities with a much lesser exposure to Level 2 instruments.

13 International Monetary Fund (2008). *Global Financial Stability Report: Financial Stress and Deleveraging - Macrofinancial Implications and Policy*, p. 111.

Figure 1 – Aggregate Fair Value Hierarchy – Selected Regions, 2007



Source: Left-hand chart: adopted from Fitch Ratings (2008). *Fair Value Disclosures - A Reality Check,* Credit Policy Report, June 2008, p. 5. Right-hand chart: Chouinard, E. and Youngman, P. (2008). *Fair Value Accounting and Financial Stability*, Bank of Canada, Financial System Review, p. 38.

Recent Developments in Fair Value Accounting

Exposure drafts recently issued by the FASB and the IASB[14] propose to update accounting standards governing fair value, including disclosure about fair value measurements. The proposed standards aim at greater disclosure of measurements that use unobservable inputs (Level 3) but also more robust disclosures about valuation techniques and inputs used for Level 2 measurements. IASB's proposed changes also establish a certain minimum disclosure for each class of assets and liabilities measured at fair value. Until now, this requirement was not part of the IFRS provisions on fair value.

The IASB exposure draft sets out three approaches for determining fair value using a valuation technique:

- A market approach – which uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities (or businesses).
- An income approach – which converts future amounts (e.g. cash flows or income and expenses) to a single discounted present value amount.
- A cost approach – which reflects the amount that would currently be required to replace the service capacity of an asset (often referred to as 'current replacement cost').

14 See Financial Accounting Standards Board (2009). *Fair Value Measurements and Disclosures (Topic 820) - Improving Disclosures about Fair Value Measurements*, Exposure Draft (August 28, 2009), and International Accounting Standard Board (2009). *Fair Value Measurements,* Exposure Draft (May 29, 2009).

An appropriate valuation technique will aim to maximize the use of relevant observable inputs (and minimise unobservable inputs) and will be consistently applied and calibrated periodically to actual transactions.

The IASB uses a three-part approach to the replacement of IAS 39 with a new standard. The three parts of the project consist of: (i) provisions for classification and measurement of financial instruments, (ii) ongoing measurement and impairment methodology, and (iii) recognizing and derecognizing of financial instruments and hedge accounting requirements.

On November 12, 2009, the IASB issued a new IFRS 9 - *Financial Instruments* on the classification and measurement of financial assets. This publication represents the completion of the first part of the IFRS 9 project. Earlier that month, the IASB published for public comment an exposure draft on the amortised cost measurement and impairment of financial instruments which addresses the second part of the IFRS 9 project. The IASB aims to replace all of the requirements of IAS 39 during 2010. The exposure draft on hedge accounting is expected to be issued in the first quarter of 2010.

A development worth noting is the delaying of adoption of IFRS 9 by the European Commission and declaration that it will prefer to wait till the entire project of IAS 39 replacement is completed by IASB. However, some companies have indicated, notwithstanding delay in the adoption by European Commission, that they will adopt IFRS 9 *suo moto* for preparing “Proforma” financial statements.

The new standard will respond to the call of the G20 leaders to reduce the complexity of accounting standards for financial instruments and will take into account the Basel Committee guiding principles on IAS 39 as well as recommendations of the Financial Crisis Advisory Group. IASB work on the new standard involved an enhanced global consultation that included hosting round-table meetings in Asia, Europe and the United States, and consideration of nearly 250 comment letters received from individuals and organizations. In addition, the IASB is working closely with the European Commission, the European Financial Reporting Advisory Group (EFRAG), and the Economic and Monetary Affairs (ECON) Committee of the European Parliament.[15]

The new standard will apply to all companies with financial instruments, not just to banks. At the heart of the new standard is defining when fair value and cost-based accounting should be applied to financial instruments. The new standard will concur with the Basel Committee and the Financial Crisis Advisory Group recommendation that cost-based accounting is appropriate for some financial instruments. The IASB’s emphasis has been to define in a balanced and transparent

15 International Accounting Standards Board (2009). *Chairman of the IASB provides update to ECOFIN on reform of IAS 39*, Opening remarks by Sir Bryan Nicholson, Trustee of the IASC Foundation.

way the appropriate criteria for classifying instruments to be measured at cost and at fair value – not to increase or decrease arbitrarily the use of fair value.

Under the new model, whether there is an increase or a decrease in fair value for a particular institution will depend on that institution's business model and holdings. As the new standard will not require banks to hold the loan book at fair value, it is likely to result in applying less (rather than more) fair value accounting in financial institutions that undertake traditional banking activities of raising deposits and making basic loans.

The new standard intends to incorporate the business model as one of the two criteria to be employed in determining the classification and measurement of the underlying financial instruments. As such, the assessment of the business model should be the first factor in determining the classification of financial instruments. The IASB has also addressed the issues related to reclassification of financial instruments. First, the new standards will remove the prohibition on reclassification of financial instruments contained in the original standard, with a change in business model resulting in reclassification. Second, as part of the transition provisions of the new standard, the IASB has proposed that companies will be able to reclassify financial instruments out of the fair value option when making their new designations accompanied by appropriate disclosures and presentation of any reclassifications. It also proposes to eliminate the counterintuitive conception that a company can receive a gain from its own liabilities when the quality of its own credit deteriorates.

As acknowledged, fair value accounting continues to have its opponents and its proponents. What is peculiarly difficult to reconcile though is that nearly all of the arguments (either for or against fair value accounting) encompass a corresponding counterargument within them.

Critique of Fair Value Accounting

The relatively long history of using fair value accounting has naturally brought with it a wave of criticism. Although, the criticism has intensified significantly during the current financial meltdown, its malfunction can be attributed to two main arguments against its use: its proclivity to exacerbate procyclicality and its contribution to the increased volatility of information presented in financial statements.

Fair Value Accounting and Procyclicality

Procyclicality is generally understood as amplification of otherwise normal cyclical business fluctuations, both in booms and in busts, creating preconditions for increasing instability and vulnerability of the financial system.

Significant concerns have been raised that fair value accounting can induce a procyclical pressure in asset prices.[16] In booms, overstatement of profits and write-ups in assets measured at fair value allow financial institutions to increase their leverage (as borrowing tolerance is typically linked to asset value) and limit their incentives to create reserves that may be drawn on in times of crisis. In busts, fair value accounting puts a downward pressure on pricing in already weak markets which results in further declines in market prices. In order to counteract the write-downs caused by fair value accounting, financial institutions may have to sell securities in illiquid markets although the original intentions may have been to hold those investments to maturity. Such forced or motivated sales become observable inputs for other institutions that are required to rely on fair value accounting to mark their assets to the market.[17] At the same time, the low interest of non-distressed sellers to enter such markets does not allow the prices to recover to, or above, the fundamental value.

The modeling analysis conducted by the Centre for Financial Studies[18] shows that the use of mark-to-market accounting in a time of crisis may indeed cause financial institutions to liquidate their assets unnecessarily and to render asset price dependent on market liquidity rather than on future earning power of the asset. However, the argument regarding procyclicality tends to ignore the fact that measuring assets and liabilities at fair value may reveal early warning signals for an impending crisis and hence may actually reduce the severity of a crisis and the intensity of price decline.

16 Laux, C. and Leuz, C. (2009). *The Crisis of Fair Value Accounting: Making Sense of the Recent Debate,* The University of Chicago, Booth School of Business, Working Paper No. 33.

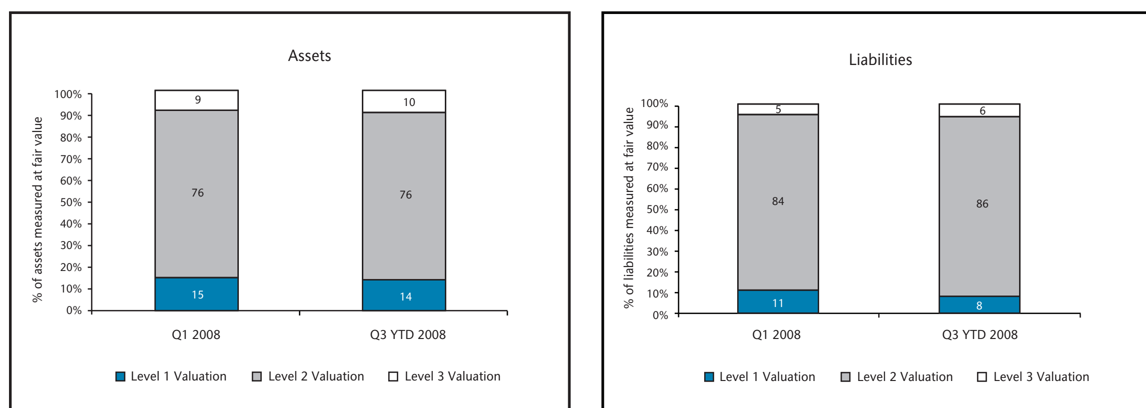
17 Laux, C. and Leuz, C. (2009). *The Crisis of Fair Value Accounting: Making Sense of the Recent Debate,* The University of Chicago, Booth School of Business, Working Paper No. 33

18 Allen, F. and Carletti, E. (2006). *Mark-to-Market Accounting and Liquidity Pricing,* Center for Financial Studies, Working Paper No. 2006/17

The empirical examination of fair value's procyclicality undertaken by the International Monetary Fund[19] also suggests that application of fair value accounting could exacerbate cyclical movements in asset and liability values; however it also emphasises that the volatility on balance sheets is primarily caused by the risk management framework and investment decision protocols employed by asset holders rather than the fair value accounting framework itself. This is also supported by the opinion of the practitioners as borne out by a survey conducted by PricewaterhouseCoopers wherein of the more than 300 financial institution board members polled, 65% agree that fair valuation creates volatility in the markets; however, 83% disagree fully with the statement that fair value accounting is to blame for the credit crisis.[20]

It is interesting to note that worsening credit conditions and increasing lack of liquidity in financial markets during 2008 were not associated with noticeable changes in the proportion of assets and liabilities valued at different levels of the fair value hierarchy, at least in U.S. financial institutions. More specifically, an only slight shift towards decreased Level 1 and increased Level 3 assets valued at fair value was observed between the first quarter-end of 2008 and the third quarter-end of 2008. For liabilities, the dynamic was slightly more noticeable (Figure 2); however, this is balanced by the fact that a much smaller proportion of total liabilities are reported under the fair value regime when compared to assets.

Figure 2 – Fair Value Hierarchy in U.S. Financial Institutions – Evolution During the 2008 Crisis



Source: U.S. Securities and Exchange Commission (2008). *Report and Recommendations Pursuant to Section 133 of the Emergency Economic Stabilization Act of 2008: Study on Mark-To-Market Accounting*, Exhibit II.17 and II. 32.

19 Novoa, A. et al (2009). *Procyclicality and Fair Value Accounting*, International Monetary Fund, Working Paper No. WP/09/39.

20 Taub, S. (2009). *Survey: Boards are Often Blind to Major Risks*, CFO Magazine. Available at http://www.cfo.com/articlecfm/12454618?f=search, accessed August 5, 2009.

Fair Value Accounting and Increased Volatility of Information in Financial Statements

Companies activities during the reporting period will naturally be reflected through the changes reported in financial statements. However, researchers[21] also identify three other potential sources through which fair value accounting may introduce volatility into financial statements. First is the inherent volatility which is driven by the change in underlying economic conditions and is reflective of the changes in the value itself. Second is the estimation error volatility caused by the simple fact that value is estimated (as opposed to observed), but also due to model specifications and assumptions that may incorrectly reflect reality. And the third type is introduced by way of the mixed-model volatility. It manifests itself because some assets and liabilities are measured at fair value whereas others may be at historical cost, while some others could be at current value. As a result, the effect of economic events is not fully recognized in the financial statements; at least not congruently.

The increased volatility of information presented in financial statements may erode relevance and reliability of information for investors. More specifically, the volatility may negatively affect investors' ability to confirm or to correct expectations and to form an understanding of past and present events. Moreover, the use of unobservable and estimated inputs for fair value measurement may affect reliability of information as it reduces verifiability. As such, the use of fair value accounting may diminish the investor's ability to assess economic risk of company operations.

Increased volatility is particularly observable in a situation of rapidly changing economic condition as was the case in the fall of 2008 when a number of previously liquid financial markets morphed into inactive markets. Interestingly, although fair value measurements based on Level 3 inputs cause the main concern in terms of accuracy and objectivity, the increased volatility of the financial statements is primarily associated with fair value measurements at Level 1 and Level 2 as they transmute the instability on active and observable markets.

It should also be noted that historical cost accounting which is viewed as the main alternative to the fair value regime may also be associated with volatility in financial statements. This happens when gains and losses that are attributable to unrecognized increase in assets' value over several years are recognized in financial statements in a single period. This volatility is often referred to as delayed recognition of economic events.[22]

21 Barth, E.M. (2004). *Fair Values and Financial Statement Volatility*, International Accounting Standards Board. Available at http://www.iasb.org/NR/rdonlyres/721AD4A0-42BB-4A09-9A91-140D27D65B84/0/FairValuesandFinancialStatementVolatility.pdf, accessed September 3, 2009.

22 Barth, E.M. (2004). Fair Values and Financial Statement Volatility, International Accounting Standards Board. Available at http://www.iasb.org/NR/rdonlyres/721AD4A0-42BB-4A09-9A91-140D27D65B84/0/FairValuesandFinancialStatementVolatility.pdf, accessed September 3, 2009.

Arguments in Support of Fair Value Accounting

The proponents of fair value accounting often cite three advantages associated with the method: the significance of limitations associated with the alternative accounting framework (i.e. historical cost), increased relevance of information presented to investors under fair value accounting, and lower likelihood for earnings management.

Limitations of Historical Cost Accounting

The primary, and polar, alternative to fair value accounting is historical cost accounting. Under the historical cost method, the asset is recorded on the company's financial statements at cost – i.e. its historical cost, less adjustment (e.g. depreciation), or market price in the event of a permanently impaired asset.

Persistence of the historical cost method over time is often justified by its simplicity and low administrative costs; however, a number of other advantages can be identified. The main among them is its conformance to the "matching concept" which prescribes that costs of resources recognized in the income statement should be matched with corresponding revenues reported in income. This principle allows greater evaluation of actual profitability and performance as it correlates, albeit imperfect, expenditure with earned revenue. The presence of an actual as opposed to a hypothetical transaction, and lesser likelihood of measurement error are two other traditional strengths of historical cost accounting.

The list of shortcomings, though, is much longer. One of the major shortcomings of the historical cost method is that it does not reflect the true economic value of financial instruments and the aligning of the accounting value of an asset or liability with its market price takes place only in certain situations, primarily when the company can demonstrate that the value of the asset or liability has been altered permanently. Other shortcomings may be summarized as follows:

- The method is insensitive to changes in purchasing power of the currency, overstating earnings in periods of rising prices and understating the degree to which capital assets maintain their value. Correspondingly, historical cost accounting becomes futile in economies exhibiting hyperinflation.

Example of Historical Cost Accounting

A company purchases a machine at a price of $300,000 at the beginning of fiscal Year 1, and estimates that the machine will last for 5 years with nil re-sale value at the end of the period. At the end of Year 3, under historical cost accounting, the machine would be reflected on the company's balance sheet at a net value of $120,000 which is comprised of the purchase price less straight-line amortization of $60,000 per annum (i.e. $300,000 divided by 5 years with a nil re-sale value). A tax deduction is given for the CCA (amortization) amount irrespective of the real market value of the underlying asset. The difference between the adjusted basis of $120,000 and the real market value of the asset would be taken into account as income or loss only at the time the company disposes of the asset.

- The historical cost method includes a substantial number of subjective estimates such as judgments regarding economic life of the asset, allocation of indirect and joint costs, bad debt reserves, warranty liabilities, etc.

- Historical cost accounting assumes a going concern (i.e. the company will remain in existence for and beyond the foreseeable future) whereas many companies may fall into the grey area between going concern and exit (liquidation) values.

- The method is too simplistic for complex transactions. For instance, the firm may have an interest rate swap obligating it to pay large amounts even though the historical cost of the swap is zero.[23]

Advantages and disadvantages associated with both historical cost and fair value accounting lead to the existence of fundamental trades-off between the insensitivity of historical cost to more recent price signals (and, thus, inefficiency of investors' decisions due to lack of information on recent, more fundamental balance sheet values) and the disfiguration of current information provided by fair value accounting for illiquid assets.

It seems, though, that fair value accounting is associated with less inefficiency than the historical cost method. Specifically, recent research[24] analyzed the economic effects of the both measurement regimes and concluded that for sufficiently short-lived and/or sufficiently liquid assets and/or sufficiently junior assets, fair value accounting induces lower inefficiencies than historical cost accounting. In turn, for assets that have a long duration, are traded in very illiquid markets or feature an important downside risk, the 'pure' historical cost regime may dominate. However, this domination fades under historical cost when impairment measurement (which is prevailingly used)[25] is activated and we can be permitted to appreciate that fair value accounting may regain its superiority depending on the nature of the impairment of the asset.

Fair Value Accounting and Accuracy of Information for Investors

The central aim of financial reporting is to portray the underlying economic position of the company and to faithfully reflect the genuine economic fluctuation of the business cycle. This, in turn, improves the relevancy of the information contained in the financial statements and improves investors' and regulators' ability to make informed decisions. Fair value accounting is seen to better align itself to this purpose than historical cost as it allows for financial statements to be more relevant and more easily comparable across different companies and periods. For

23 Jensen, R.E. *Fair Value Accounting in the USA.* Available at http://www.cs.trinity.edu/~rjensen/Calgary/CD/FairValue/21-Jensen-chap21.pdf, accessed September 3, 2009

24 Platin, G. et al (2007). *Marking-to-Market: Panacea or Pandora's Box?* 2007 Journal of Accounting Research Conference, p. 26-27.

25 'Pure' historical cost measurement does not include any adjustments for changes in price level, whereas the historical cost with impairment measurement implies that the value of the asset is written down to fair value if the asset price is below its recorded cost.

instance, under fair value accounting, the value of financial assets acquired by two different firms at different points in time may be easily comparable whereas under historic measurement, the accounting value of these assets will more likely be recorded differently on the balance sheets of the two firms.

The actual users of information provided by financial reporting seem to support this notion. In 2008, the U.S. Securities and Exchange Commission conducted a large in scope consultation in relation to fair value accounting and of its application to financial institutions. During the consultation, the Commission considered 186 comment letters, opinions presented during the Commission's three public roundtables, and recommendations developed by the two most recent U.S. federal advisory committees on fair value accounting measurements. The overarching conclusion of this consultation was that most investors and other users of financial reports denote the view that fair value accounting gives to the investor "additional insight into the risks to which the company may be exposed and the potential liquidity issues the company could face if it needed to sell securities rather than hold them for the long-term".[26]

However, there are certain limitations to this advantage. For instance, the participants of the mentioned consultation also suggested that the situation reverses when markets are in distress and fair value accounting leads to less relevant and reliable financial information due to the volatility of market pricing used for fair value measurements. Another pitfall of the information provided by fair value measurement is the subjective judgement which unavoidably appears when determining values of assets or liabilities for which inputs are unobservable (i.e. Level 3 inputs). This subjectivity manifests itself through managerial judgement, use of private information, and the inherent uncertainty regarding the validity of the assumptions used in valuation.

Fair Value Accounting and Reduced Opportunity for Earnings Management

It is said that fair value accounting can alleviate the use of accounting-motivated transaction structures designed to exploit opportunities for earnings management created by the model of mixed attribute (part historical cost, part fair value). In bad economic times, management can influence reported income under historical cost accounting through the sale of assets for example, as a profit is reported if the net selling price of an asset is meaningfully greater than the book value reported under historical cost. This in practice should not be attainable under fair value accounting as the underlying asset is reported at fair value and the result is reflected in the income statement, thereby reducing the possibility of income smoothing.

26 U.S. Securities and Exchange Commission (2008). *Report and Recommendations Pursuant to Section 133 of the Emergency Economic Stabilization Act of 2008: Study on Mark-To-Market Accounting*, p. A-4.

Concluding Remarks

The fair value regime represents an evolving accounting system which has now permeated the regulatory environment and made its way into the social landscape. With the globalization of capital markets and the advent of complex financial instruments in use today, it has become apparent that fair values of assets and liabilities are of greater interest to investors than their historical costs. This will only become more intense as economic borders evaporate, as economies mature, as financial markets evolve, and as the public commands heightened accountability largely resulting from improved comprehension and confidence.

While neither fair value accounting nor its main alternative – historical cost – are free from shortcoming, the arguments presented herein intend to show fair value accounting in a positive light – having the distinct advantage of being able to best reflect the reality of current financial and economic conditions.

Inherently complex and instinctively responsive to the marketplace, the success of fair value accounting will nevertheless reside in the world's ability to harness its potential. In so doing, the fine-tuning of standards and of regulatory supervision will bear significantly on the ultimate end state. As the financial crisis portrays, there is a need to enhance clarity and to promote transparency and robustness about disclosures as the methods and assumptions used in valuation become critical to maintaining the accuracy of information provided to investors.

A certain simplification of the accounting standards for financial instruments may also be beneficial – to preparers, to analysts, to investors, to regulators, and to the broader public. And this may be complemented by shifting to a single, high-quality global standard to ensure consistent application and enforcement. Moreover, it is imperative that we stabilize market behaviour with a system befitting of the confidence that the financial markets seek to re-establish.

The profession will adjust as too will fair value literacy.

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