

Fair Value Accounting and Financial Institutions: Lessons Learned from the Recent Global Financial Crisis

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ABSTRACT

Fair value accounting is alleged to have exacerbated, or even contributed to, the recent global financial crisis through its procyclical effects. This paper discusses fair value accounting critics' views and those of advocates for fair value accounting and debates whether historical cost accounting is a better alternative to fair value accounting during a crisis. To conclude, fair value accounting did not play a major role in contributing to the financial crisis. Rather, the business models of financial institutions and their short-term incentives likely contributed to the crisis. Although the relaxation of accounting rules in times of the financial crisis implies that fair value accounting may have caused downward spirals or forced sales, historical cost accounting would not be an optimal solution, as it would impair transparency of accounting information and therefore undermine investors' confidence. An important suggestion is that in the case of a future crisis, regulatory agencies should not relax regulatory capital ratios to prevent moral hazard while standard setters should revise the deviation clause in the fair value accounting rule to facilitate a departure from prices in illiquid markets.

Keywords: Fair Value, Financial Crisis, Regulatory Capital, Banking Sector

การบัญชีมูลค่ายุติธรรมและสถาบันการเงิน: บทเรียนจากวิกฤตการณ์ทางการเงินของโลกครั้งที่ผ่านมามี

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บทคัดย่อ

การบัญชีมูลค่ายุติธรรมได้รับการกล่าวหาว่า ผลกระทบตามวัฏจักรเศรษฐกิจของการบัญชีมูลค่ายุติธรรมได้ทำให้เกิดวิกฤตการณ์ทางการเงินของโลกครั้งที่ผ่านมามีแล้วร้ายลงหรือแม้กระทั่งได้รับการกล่าวหาว่าก่อให้เกิดวิกฤตการณ์ทางการเงินดังกล่าว บทความฉบับนี้อธิบายแนวคิดของผู้ที่ไม่เห็นด้วยกับการบัญชีมูลค่ายุติธรรม และผู้สนับสนุนการบัญชีมูลค่ายุติธรรม ทั้งยังอธิบายว่าการบัญชีราคาทุนเป็นทางเลือกที่ดีกว่าการบัญชีมูลค่ายุติธรรมหรือไม่ในยามที่วิกฤตการณ์ทางการเงินได้เกิดขึ้น ข้อเสนอคือ การบัญชีมูลค่ายุติธรรมมิได้มีบทบาทสำคัญในการก่อให้เกิดวิกฤตการณ์ทางการเงิน แต่รูปแบบการดำเนินธุรกิจและแรงจูงใจระยะสั้นของสถาบันการเงินต่างหากที่มีแนวโน้มว่าจะก่อให้เกิดวิกฤตการณ์ทางการเงินในครั้งที่ผ่านมามี แม้ว่าข้อเสนอมาตรฐานการบัญชีในยามที่เกิดวิกฤตการณ์ทางการเงินอาจถือเป็นนัยว่าการบัญชีมูลค่ายุติธรรมทำให้เกิดสถานการณ์ที่สูญเสียค่าสินทรัพย์ของสถาบันการเงินตกต่ำอย่างไม่หยุดยั้งหรือการบังคับขายสินทรัพย์ของสถาบันการเงิน แต่การบัญชีราคาทุนก็มีข้อจำกัดที่ดีที่สุด เพราะการบัญชีราคาทุนจะทำลายความโปร่งใสของข้อมูลทางการบัญชีและทำลายความเชื่อมั่นของนักลงทุน ข้อเสนอแนะที่สำคัญประการหนึ่ง คือหน่วยงานกำกับดูแลไม่ควรผ่อนปรนอัตราส่วนเงินสำรองสำหรับวัตถุประสงค์ในการกำกับดูแล เพื่อกันไม่ให้เกิดจริยวิบัติ ในขณะที่หน่วยงานกำหนดมาตรฐานการบัญชีควรทบทวนข้อกำหนดในการไม่ใช้ราคาตลาดในการกำหนดมูลค่ายุติธรรมซึ่งเป็นหลักการหนึ่งในการบัญชีมูลค่ายุติธรรม เพื่อให้การไม่ใช้ราคาในตลาดที่ขาดสภาพคล่องในการกำหนดมูลค่ายุติธรรมเป็นไปได้ในทางปฏิบัติ

คำสำคัญ: มูลค่ายุติธรรม, วิกฤตการณ์ทางการเงิน, อัตราส่วนเงินทุนเพื่อวัตถุประสงค์ในการกำกับดูแล, ภาคการธนาคาร

Introduction

Afraid of the collapse of the entire financial system, many politicians, economists, businessmen and columnists demanded that the standard setters put an end to fair value accounting before its arguably deleterious impacts would become uncontrollable. One of them was French President Nicolas Sarkozy, who asked the International Accounting Standard Board (IASB) to suspend fair value accounting in IAS (International Accounting Standard) 39, because he believed that this accounting regime was sabotaging the stability of European banks. Critics of fair value accounting proposed historical cost accounting (HCA) as a remedy for fair value accounting. This phenomenon appears to be impossible, but, believe it or not, it happened in the period of the global financial crisis between 2007 and 2008.

In times of a financial crisis, fair value accounting (FVA) can pose formidable challenges to financial institutions whose financial assets and liabilities are required to be reported at fair value. During the recent financial crisis commencing in 2007, financial institutions on which Tier 1 capital was imposed encountered downward spirals claimed to be caused by FVA. Once a dramatic shock had hit the U.S. economy, illiquid financial markets were common where investors' confidence and willingness and financial ability to trade plummeted. In maintaining the Tier 1 capital requirement, the financial institutions were therefore forced to continuously sell financial assets at heavily discounted prices. This

circumstance could have contributed, at worst, to systemic risk when the forced sale prices were relevant to other financial institutions. Suddenly, this crisis spread its spillovers to other continents including Europe. Under the FVA specified in IAS 39 and U.S. GAAP (Generally Accepted Accounting Principles), the statements of financial position of the U.S. and European financial institutions contracted significantly while their statements of income reported an unprecedentedly large amount of losses, as the accounting standards required that fair value be derived from market prices.

Together with standard setters and regulatory bodies, some prominent researchers however advocated the application of FVA, claiming that only FVA could provide transparency for market participants in a financial crisis in which transparency is most needed. Laux and Leuz (2010) state that the arguably adverse effects of FVA must be considered against the advantages of timely recognition of loss that could lead to prompt corrective measures. Similarly, Barth and Landsman (2010) suggest that value relevance be seriously taken into account whenever a trade-off between HCA based on reliability and FVA based on relevance is under debate. They conclude that FVA was not a major culprit of the crisis but the most appropriate reporting system available in times of the crisis. Instead, the effects of loan loss provisioning based on the incurred loss model have been responsible for the origination of the financial crisis (Barth and Landsman, 2010).

This article will contrast FVA proponents' views with those of FVA opponents in the context of the subprime crisis between 2007 and 2008, as well as presenting the author's view and suggestion.

Surge of the Financial Crisis

At the outset of the financial crisis in 2007 was the U.S. housing market where government policy, lax standards of lending and financial innovation encouraged excess subprime mortgage lending in an economic upturn. The world witnessed the crisis rapidly plaguing credit markets, financial markets, and eventually the real economy from the United States to other nations. Even well-established financial institutions failed to weather the storm—some filed for bankruptcy while others were bailed out by the Federal Deposit Insurance Corporation. As a result, the risk management practices of financial institutions have been widely criticized and alleged to contribute to this financial crisis.

Over the past two decades, the U.S. government had been supporting low and middle income families' home ownership, causing regulation over mortgage lenders to be lenient. The relaxation of lending standards made it possible for numerous households previously deemed to be unqualified for mortgages to afford houses. Demand for housing grew accordingly, and so did prices. Mortgage lenders were pleased with this lucrative situation, as the lending was well covered by real estate whose prices were on the rise. Significant loss would not result were the borrowers to default.

Complicating the circumstance, securitization established a principal mechanism to empower the mortgage lenders who were in pursuit of higher profits and accelerate the housing bubble. Generally, securitization enables financial institutions to obtain cash from selling portfolios of mortgages to special purpose entities (SPEs) which offer structured products for investors. Financial engineers issue a security backed by a pooling of the mortgages whose cash flows are separated into tranches. The riskiest tranche (such as equity tranche) means the highest rate of return whereas the least risky tranche rated AAA (such as senior tranche) is commensurate with the lowest rate of return. The security is named as 'asset-backed security' (ABS) or, to be specific, 'mortgage-backed security' (MBS). Making more money, creative financial engineers created an ABS from tranches of MBSs dynamically and sold them to investors, including hedge funds, prior to the crisis. In short, securitization had two important implications in the housing boom: it allowed for excess lending and for the reduction of capital requirements (Acharya and Richardson, 2009).

Not only were ABSs central to the financial crisis, but credit default swaps (CDS) played a key role in the credit turmoil. Put simply, CDS is a financial instrument that insures against default risk. Once a default occurs, a CDS writer agrees to purchase for the face value the bonds on which a CDS holder buys the insurance. Before the crisis, an enormous number of CDSs were purchased for protecting against the defaults of ABSs that hedge funds and investment banks held. At that time, AIG

sold naked CDSs—CDSs written without holding another counterparty’s CDSs for self-protection—to insure \$440 billion bonds, most of them relating to debts issued by Lehman Brothers (Barth and Landsman, 2010). It can be simply presumed that AIG did not expect Lehman Brothers to default or that AIG mispriced the risks of ABSs.

Good times could not last forever, and the bubble finally burst in the housing market later in 2007. Increasing house prices in the prior periods reduced demand for houses continually. Some borrowers were speculators who decided not to honor the mortgages as the prospects of the real estate industry seemed dull while others were owners who could no longer pay off their mortgages due to their economic constraints. As time elapsed, this circumstance led to more foreclosures and the rising number of houses for sale, severely depressing the house prices. Bad news about the housing market continued to arise, and its unfavorable impacts became widespread.

The subprime crisis in the housing market spread rampantly to the financial markets, the credit markets and the real sectors across the world. In the summer of 2007, the financial markets experienced substantial disruptions, particularly the failure of the asset-backed security market. At the culmination of the crisis in 2008, Lehman Brothers defaulted which had securitized many of its mortgage loans and reported record net income. Not well aware of the credit event,

AIG failed to fulfill its obligations of the CDSs it wrote. However, the U.S. government chose to bailout AIG to prevent systemic risk, a circumstance in which the entire financial system collapses. In times of the crisis, uncertainty about the economic future was looming on the horizon, investors’ confidence dissipated due to lack of transparency, and so the financial markets became illiquid. Because of the massive losses on their assets and limited availability of funds, banks cut lending to companies, investment contracted while unemployment rose. The whole country suffered a major economic recession which later hit the rest of the world. In response, the Federal Reserve adopted the conventional monetary policy, called “Quantitative Easing (QE).” This expansionary monetary program was designed to add liquidity and cut interest rates with the aim of stimulating the domestic economy which, in turn, would affect the global economy.

Fair value accounting has been blamed for exacerbating the global financial crisis or even contributing to the crisis. At this point, the reader may have several questions, e.g., what FVA is, what role FVA played in the financial crisis, what an alternative to FVA is, and whether FVA contributed to the crisis. The following sections will present arguments from relevant literature to answer these questions. Figure 1 shows important events in times of an economic upturn. Figure 2 illustrates important events during an economic downturn.

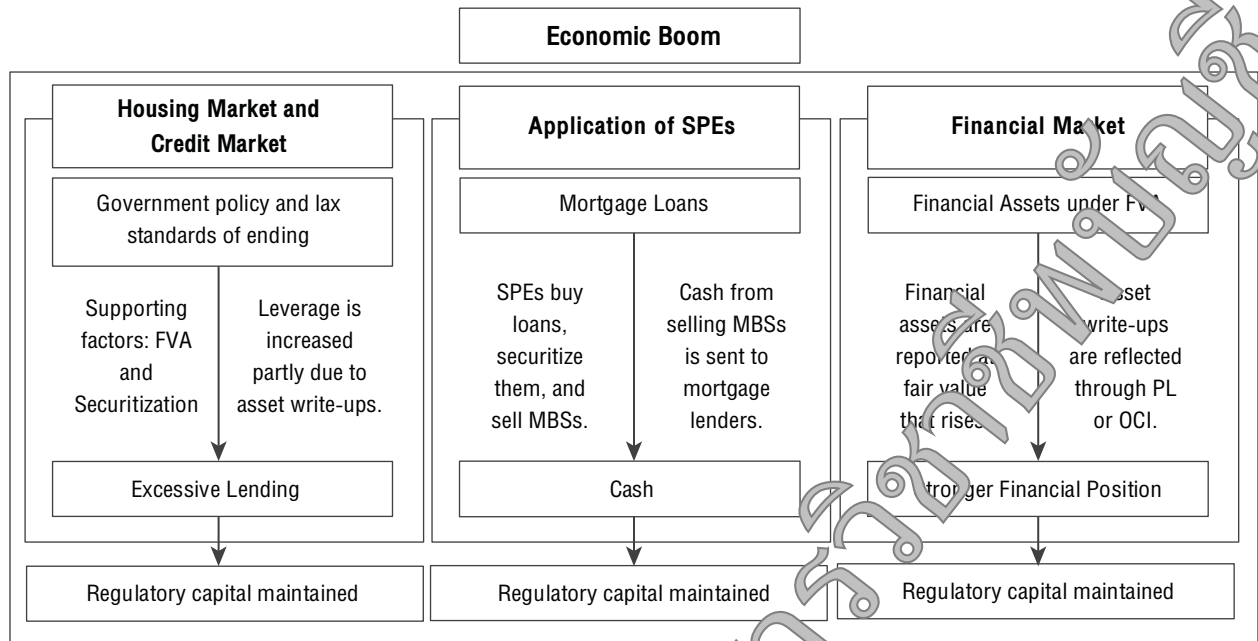


Figure 1: What Happens in an Economic Boom

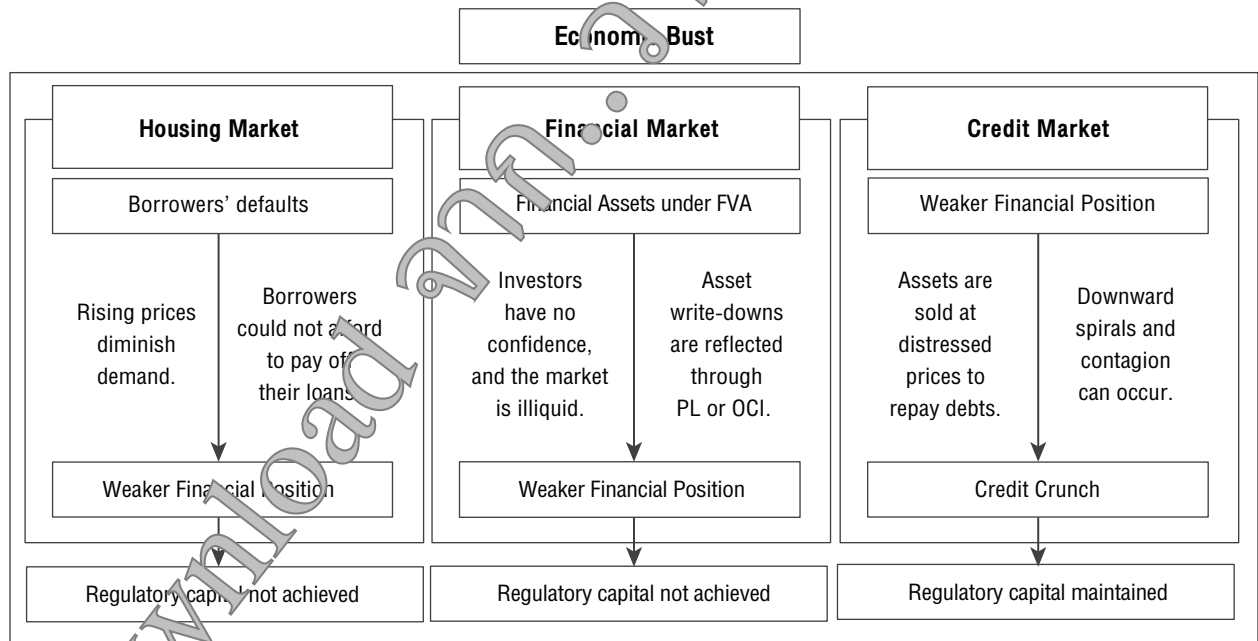


Figure 2: What Happens in an Economic Bust

Fair Value Accounting and Financial Institutions

In its pure form, fair value accounting (FVA) requires that assets and liabilities be measured at fair value derived ideally from market prices and that differences between the carrying amounts and fair values be recognized through profit or loss (Laux and Leuz, 2010). IAS 39 also permits this fair value option. When market prices represent fair value, fair value accounting is simply named “mark-to-market accounting”. However, the fair value option is not extensively used. Instead, types of financial assets and liabilities determine whether the amounts of difference between the carrying amounts and fair values of financial assets and liabilities are reported on the statement of income or through other comprehensive income (OCI) whereas most derivatives are measured at fair value through profit or loss.

Fair value is defined 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” inputs for fair value are in the following order. Level 1 inputs are quoted prices in the active markets for identical assets and liabilities. Level 2 inputs are observable inputs other than those in Level 1 inputs. Level 3 inputs are unobservable inputs. Before the crisis, financial institutions most commonly used models with Level 2 observable inputs, followed by Level 1 and 3 inputs respectively (Laux and Leuz, 2010). During the crisis, the significance of Level 1 inputs lessened whereas that of Level 3 inputs in financial models increased sharply

(Laux and Leuz, 2010). Nonetheless, forced or fire sale prices are not considered to be fair values.

According to Laux and Leuz (2010), in the case of bank holding companies, 73% of their balance sheets, most of which were available-for-sale securities, were reported at fair value. With the mark-to-market model, change in the value of available-for-sale securities is charged to OCI unless the securities are disposed of. Half of the balance sheets were loans and held-to-maturity securities whose fair value were disclosed although they were, in fact, measured at amortized costs or modified historical costs. On the other hand, investment banks largely carried collateralized agreements and repo agreements whose amounts were reported at historical costs close to fair value. Clearly, a “mixed-attribute” model has a crucial part to play in accounting treatments for financial instruments (Laux and Leuz, 2009).

Critical Roles of Fair Value Accounting in the Global Financial Crisis

Fair value accounting is claimed to have contributed to the financial crisis through its procyclicality in an economic upturn. Before the crisis, when the market prices of assets rose, FVA ensured that the balance sheets reflected asset write-ups, leading to the stronger financial position of financial institutions. Intuitively, financial institutions increased leverage through more lending and securitization without violating Tier 1 capital, resulting in constant growth in their balance sheets. This process continued throughout

the economic boom. Plantin, Sapra and Shin (2008a) note that price changes comprise volatility that reflects fundamentals and artificial volatility. The latter is detrimental especially if short-term incentives and market frictions influence market participants to amplify the upward movement of asset prices. Thus, recognizing volatility that is not justified by fundamentals in financial statements can create an endogenous source of volatility that results solely from FVA (Plantin, Sapra and Shin, 2008a). Even though little evidence suggests that FVA contributed to excess lending, excess securitization and finally the financial crisis, no one could deny the possibility that artificial volatility of asset prices accounted for under FVA prior to the crisis rendered the financial systems more vulnerable.

In addition, fair value accounting is believed to have exacerbated the financial crisis through its procyclicality in an economic downturn. During the crisis in the second half of 2008, when the market prices of assets were in free fall, asset write-downs were recorded in accordance with FVA, leading to the weaker financial position of financial institutions. To maintain Tier 1 capital, financial institutions were forced to sell their assets at amounts that were well below fundamental prices, in order to reduce risk assets and repay short-term debts used to finance their ABS holdings (Barth and Landsman, 2010; Shleifer and Vishny, 2011). Once this activity continued and further depressed the asset prices, there may have been downward spirals of asset-fire sales. Contagious effects may have ensued when these fire-sale prices had

become prevalent in the financial markets, and other financial institutions measured their financial assets at the fire-sale prices considered to be fair value. It is possible that FVA implemented in times of the crisis would make the financial crisis more severe if volatility from the downward movements of asset prices were artificial, as stated by Plantin, Sapra and Shin (2008a).

However, FVA supporters argue that fair value accounting played vital positive roles in the financial crisis. Reported at fair value, financial assets and liabilities reflect current market conditions, providing accounting information that is relevant to investors' equity valuation (Barth and Landsman, 2010; Laux and Leuz, 2009). After the crisis unfolded, the decline in the value of financial assets not only reflected the degree of illiquidity in the financial markets and of investors' participation but also sent an early warning signal that a predicament was imminent. In response, regulatory bodies, in fact, could have implemented corrective actions promptly to prevent any spillover effect. Interestingly, when the credit worthiness of financial institutions is lower, gains on fair valuing own liabilities are allowed to be recognized through profit or loss under IAS 39. The gains can assist financial institutions in alleviating the magnitude of losses from fair valuing assets. However, in times of the crisis, regulators applied prudential filters to remove these gains before computing the Tier 1 capital, making the attainment of financial institutions' capital ratio difficult without selling their own assets (Barth and Landsman, 2010). Furthermore, uncertainty during

the crisis undermined investors' confidence. Hence, transparency of accounting information provided by FVA is absolutely essential for enhancing investors' confidence in the course of the crisis. Likewise, Tweedie (2008) concludes that the crisis is a crisis of confidence that can be resolved by increased transparency. Transparency improved through additional disclosure will boost market participants' confidence in the credit markets.

In sum, despite the distinct advantages of FVA, artificial upward volatility arising from FVA during an economic boom weakened the stability of the banking sector and increased the likelihood of the sector's failure in times of an economic depression. In addition, artificial downward volatility arising from FVA during an economic bust could lead to forced sales, where financial institutions sold their assets at distressed prices to repay debts and maintain the capital requirements. Therefore, excessive credit expansion contributing to the financial crisis could occur unless fair value were equal to fundamental value. As it may be true that the two values are equal, a group of individuals strongly suggests that historical cost accounting be used in place of fair value accounting during a crisis.

Historical Cost Accounting: Alternative to Fair Value Accounting

Historical cost accounting (HCA) is claimed to be an accounting treatment that is arguably better than fair value accounting in times of a financial crisis. Based on HCA, financial assets and liabilities are carried at amortized cost, or modified historical

cost. Uncertainty, irrationality and a dearth of confidence caused a liquidity crunch when the financial crisis arose. Consequently, current market prices not determined in an orderly transaction may have incorporated artificial volatility that was not justified by fundamentals. Martin, Sapiro and Shin (2008b) develop an economic analysis of these two accounting regimes and argue that HCA omits price signals while FVA include a speculative element in price changes. Since the speculative component under FVA undermines the informational content of current prices, HCA appears to be more appropriate than FVA for measuring the value of long-term assets in an illiquid market that are exposed to a downside risk. They also suggest that financial institutions and economic growth can be harmed by a precipitate shift to a full FVA regime although this accounting regime is desirable in the long run.

- HCA is also believed to be central to the stability of financial institutions. Financial institutions that use HCA are believed not to be affected by the decline of the market prices in times of a crisis, when market prices do not seem to reflect true fundamental values and future earnings power. By contrast, historical cost better represents true value. In this case, banks would not experience difficulty maintaining Tier 1 capital, prescribed by bank regulators. They would not be forced to sell their own assets; therefore, fire sales or downward spirals and contagion would not follow, and financial systems would never collapse. Is it true that assets valued in accordance with HCA are not subject to write-downs?

It is clear that the arguments above illustrate several fallacies. First and foremost, assets measured in accordance with HCA is still subject to impairment tests. In the case of an asset impairment, an impairment loss must be recognized through profit or loss. Although some may argue that impairment accounting relies on much of management discretion, independent auditors invariably assume responsibility to verify those management assumptions. Thus, it can be reasonably assured that the outcome based on HCA would not differ significantly from that based on FVA. Another drawback is that under HCA, impairment losses would not be partially neutralized by gains from fair valuing financial liabilities, possibly worsening banks' accounting performance.

At the forefront of the debate is a trade-off between relevance and reliability of accounting information. Barth and Landsman (2010) suggest that value relevance is the answer to the contentious debate between FVA and HCA. Unlike HCA, FVA provides value relevance, in that fair value is relevant to equity valuation and reliable to reflect in stock prices (Barth and Landsman, 2010). Even in times of a crisis, sophisticated investors will never use accounting numbers based purely on historical costs to value equity stock, as these accounting numbers reflect excessive conservatism. Because of its prudence and limited timeliness, HCA also does not play the role of a warning messenger. If corrective action had not been taken in due course, the consequence of the crisis could have been worse. According to Tweedie (2008), this crisis

is a crisis of confidence, in which confidence can be regained by providing investors with transparency. HCA would have destroyed transparency that FVA could provide, more likely triggering doubt than boosting confidence.

The practice of increased leverage can be eliminated under none of the two accounting regimes. HCA provides financial institutions with considerable latitude to increase leverage through “gains trading”. Under HCA, banks choose when to report valuation gains by selling winners or securities with realizable gains—while retaining losers or securities with realizable losses—and repurchasing the winners, at which point banks start leveraging aggressively through lending and securitization. In such a case, regulators cannot anticipate when aggressive leverage will occur. Before regulators understand this financial activity thoroughly, its consequence may be too chaotic to be handled by conventional policy. On the contrary, FVA tends to restrain banks from choosing when to recognize valuation gains. In this sense, regulators can monitor when banks raise leverage and thus take preventive measures in a timely manner to curb excessive leverage.

Even during a financial crisis, most of the literature (e.g., Barth and Landsman (2010), Laux and Leuz (2009, 2010) and Tweedie (2008)) argues against the application of HCA, since it does not provide value relevance and transparency, but it allows financial institutions to increase leverage through “gains trading”. Under the HCA regime, regulators are bound to neglect a warning about an upcoming financial crisis. However, prices observed

at the market in a crisis may not represent fair value appropriately in accordance with the definition of fair value accounting, so a departure from observable inputs may be considered.

Exception to Fair Value Accounting

Accounting standards permit deviation from using quoted market prices in determining fair value. U.S. GAAP and IFRSs (International Financial Reporting Standards) are practically identical in terms of fair value measurement. According to both of the accounting standards, deviation from quoted market prices (Level 1 inputs) and observable inputs (Level 2 inputs) are allowed if the markets are heavily distorted. However, illiquidity is not a valid reason for the deviation. For example, when there is an asset fire sale, or a forced sale, in an economic distress, the fire sale prices do not reflect future earnings power of the assets and are significantly lower than fundamental value. In this case, unobservable inputs (Level 3 inputs) are permitted. In reality, the deviation is nearly impossible in practice, except that standard setters grant deviation in a special case.

Standard setters make deviation from fair value accounting nearly impermissible even though it is permitted in certain unusual situations, such as a forced sale. A liquidity crunch normally precedes a forced sale. Therefore, until the situation meets the criteria of a forced sale, the value of banks' financial assets may be decreased to the amount that is significantly below fundamental value, e.g., close to zero. In this case, banks may have no strong incentive

to deviate from fair value accounting, as the circumstance is already severe.

Moreover, litigation concerns may discourage financial institutions from using unobservable inputs. Leuz and Laux (2009) note that it is unlikely that managers will deviate from market prices. During the recent crisis, contracts and regulation were tied to fair value and fair value accounting. With short-term incentives, managers might be cautious about negative market reactions that may have occurred abruptly if a departure from observable inputs had been present. The first reason is that many contracts with counterparties were associated with fair value derived from market prices. Second, market prices were closely related to risk management within financial institutions, such as Value at Risk (VaR). Third, regulators used market prices to indicate expected future performance of financial institutions for the purpose of calculating capital requirements; thus, when future losses were expected, required capital had to be adjusted regardless of when losses were realized (Leuz and Laux, 2009). Hence, deviation from market prices could have meant breaching important clauses in the contracts or rules stipulated by regulatory bodies and led to lawsuits between companies in the contracts or between financial institutions and regulators.

To summarize, although deviation from market prices is permitted under unusual situations, it is feasibly difficult because of litigation problems that may arise. For this reason, standard setters decided to relax the accounting rules to solve the implementation problem.

Consequences of the Financial Crisis for Accounting Standards

Standard setters, including IASB (International Accounting Standards Board) and FASB (Financial Accounting Standards Board), encountered mounting political pressure throughout the course of the financial crisis. Consequently, FASB relaxed the reclassification of financial assets in 2008 and allowed for the practical use of unobservable inputs (Level 3 inputs) with financial models in 2009. U.S. SEC (Securities and Exchange Commission) and FASB also relaxed the existing measurement of fair value.

Like FASB, IASB issued amendments to IAS 39 & IFRS 7 “Reclassification of Financial Assets” without due process in October 2008. Applicable only to non-derivative financial assets, the amendments permit a reclassification from “held for trading” securities, reported at fair value to profit or loss, to “available for sale” securities, reported at fair value to OCI, or “held to maturity” securities, measured at amortized cost. They also permit a reclassification from “held for trading” securities, reported at fair value to profit or loss, and “available for sale” securities, reported at fair value to OCI, to “loans and receivables,” measured at amortized cost. In sum, these amendments allow for the reclassification of non-derivative financial assets from the fair value accounting regime to the historical cost accounting regime.

After these rulings came into effect, financial institutions apparently managed to significantly reduce the amount of losses from asset write-

downs, making their financial statements appear to be better in the short run.

What Most Likely Caused the Financial Crisis

I would argue that the business models of financial institutions, not fair value accounting, were most likely to have caused the financial crisis. Shaffer (2010) finds that the impairment loss of loans based on the incurred loss model accounted, on average, for 15.7 percent of the depletion of Tier 1 capital at the end of 2008 whereas the loss from fair value accounting represented merely 2.09 percent on average. This finding appears to indicate that financial institutions’ business models and short-term incentives were prone to have caused the financial crisis, because lax lending standards, excess lending, securitization, market value bank management, collateralization agreements, and financing asset-backed securities with collateralized short-term liabilities resulted from banks’ business strategy prior to the crisis.

To substantiate the minimal effects of fair value accounting on the financial crisis, regulators reportedly applied prudential filters to eliminate some gains and losses originating from fair value accounting—particularly unrealized losses from available-for-sale securities and gains from fair valuing banks’ own liabilities when their credit risk increased—for the purpose of capital computation. Barth and Landsman (2010) argue that excluding gains on fair valuing banks’ own debts magnified the severity of procyclicality in the crisis. Therefore, bank regulators themselves may have destroyed banks’ capital requirements

without realizing the outcome of what they were doing. In short, it can be argued that fair value accounting had limited impacts on the capital of banks while loan loss provisioning that proves to have played a direct role in decreasing banks' capital may have contributed to the financial crisis.

During the crisis, information asymmetry played a key role in undermining confidence among market participants and exacerbating the circumstance, as well illustrated by the collapse of the asset-backed securities market and the cases of AIG and Lehman Brothers. Some claim that fair value accounting and accounting disclosure mitigated the problem of information asymmetry in times of the crisis by providing transparency to market participants (for example, Tweedie (2008) and Barth and Landsman (2010)). However, what standard setters did to relax the relevant reporting requirements during the crisis necessitated the public questioning the benefits of fair value accounting and its limited impacts on the crisis, as claimed by standard setters. Behind the standard setters' decision possibly lies the fact that they acknowledged that this accounting practice amplified the severity of the crisis.

Concluding Remarks

To begin with, I personally agree with IASB and FASB, which finally relaxed the fair value accounting rule. The standard setters may have realized that transparency of accounting information could not be viewed as separate from the stability of the banking industry. Reduced transparency due

to the relaxation of fair value accounting would not outweigh the strengthened stability of the banking sector. In addition, in times of a liquidity crunch, fair value from Level 1 inputs is no longer fair value; thus, a deviation from Level 1 inputs appears to be justified. In contrast, Barth and Landsman (2010) suggest that fair value accounting should not be relaxed during a crisis, because standard setters' main objective is to enhance transparency of accounting information, rather than to maintain the stability of the banking industry. That said, I propose a question that needs to be answered: "Should standard setters include the stability of financial institutions in their main objective?". Standard setters' vehement support of transparency of accounting information in times of financial crisis could do nothing but force financial institutions to revalue their financial assets to the value so low that they would have to initiate fire sales with the aim of maintaining regulatory capital. In response, I would suggest that standard setters make it practically possible to depart from Level 1 inputs when there is an unusual liquidity shortage.

I also agree with bank regulators that decided not to relax capital requirements. Regulators should uphold the capital ratios to show inefficient financial institutions to the public. Inefficient banks should exit the industry unless governments bail them out. This shows that regulators treated everyone on the level playing field equally. Barth and Landsman (2010) do not have the same opinion about regulators, but I believe that

their suggestion that regulators relax the capital requirements would discourage bank managers from changing the business models. Subsequently, this would put the whole banking industry in serious danger, as experienced in the recent crisis.

My epilogue is that if bank managers with a long-term view were to take into account both all stakeholders' interests and banks' profit numbers, banks' business models would not be what they are today. For example, banks would tighten their standards of lending and provide home owners with the majority of the mortgage loans. Meanwhile, speculators would obtain only a small fraction of mortgage loans. Furthermore, information asymmetry should be mitigated by improved disclosure about structured products and derivatives, so that risk management policies can be implemented. Effective risk management procedures will help alleviate exposure that may trigger the failure of a financial institution.

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