Fair Value Accounting and Reporting Disclosures

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ABSTRACT

This thesis, Fair Value Accounting and Reporting Disclosures, will present a detailed description of the history of fair value accounting, with an emphasis on disclosures. These concepts will be applied to a research study in which the financial statements of selected financial institutions will be analyzed, specifically focusing on fair value disclosures. The financial institutions being studied are constituents within the Standard & Poor's 500 financial sector that early adopted the Statement of Financial Accounting Standard No. 157 (SFAS 157) at the beginning of fiscal year 2007. The purpose of this study is to note any changes in the classification of assets measured at fair value, i.e. Level 1, Level 2, and Level 3. Doing so will help to assess whether the additional guidance issued by the Financial Accounting Standards Board (FASB) over the past couple of years has aided in resolving the issues surrounding fair value accounting. A two-part hypothesis has been developed, with Hypothesis #1 predicting that upon first implementing SFAS 157, companies classified the majority of their assets using observable market inputs (Level 1 and Level 2); however, with the additional guidance issued, a shift occurred among the fair value categories, bringing about more Level 3 classifications. Additionally, Hypothesis #2 states that as market activity and liquidity started to improve, a shift back to a majority of Level 1 and Level 2 classifications occurred, due to the increased number of observable market inputs. Research findings from the selected sample companies concluded that, in most cases, fair value classifications were consistent with both Hypothesis #1 and Hypothesis #2.

Fair value financial reporting is being blamed for the subprime meltdown, bank failures, the credit crunch, and the current recession. Global warming is about the only thing not being blamed on fair value (FV) and mark-to-market (MTM) accounting. Before we're through, however, MTM will probably be blamed for global warming, obesity, and the collapse of Detroit's Big 3 domestic automakers.

Alfred M King. Determining Fair Value. (2009) Strategic Finance, 90(7), 27.

INTRODUCTION

The continuous mayhem that currently exists within the financial markets today has been blamed on a number of factors, however, none more than that of fair value accounting. Fair value accounting is the reporting of assets and/or liabilities at the (fair) value for which they would sell in an active market.

The idea of fair value reporting is not a new concept to the accounting profession. In fact, fair value practices have been in place for quite some time. Trading securities, for instance, have long been measured on an entity's balance sheet at their fair market value. Yet, what has changed is the recent turmoil within financial markets, which created a panic and caused a slowdown in market transaction activity.

Very rarely in the past have accounting procedures received such harsh scrutiny from such a varied group of parties, which begs the question, if nothing has truly changed, what is all the fuss about? A large portion of the talk surrounding fair value accounting has "raised the temperature of the discussion while shedding very little light on the issues" (King 2009). The overall problem seems to be that reporting techniques have not changed, but markets that were once active where assets and liabilities were traded at easily identifiable fair values have now become inactive, posing significant valuation issues for companies that hold complex assets and liabilities.

It has been argued that the amounts companies are required to report for certain items are not reflective of their true economic value; but, if the market the item is trading within is distressed, shouldn't that be reflected accurately within the financial statements? Strong

challengers of fair value accounting boast that "if we do not halt the insanity of forcing financial firms to mark assets to a nonexistent market rather than their realistic economic value, the cancer will keep spreading and will plunge the world into very difficult economic times for years to come" (Isaac 2009). However, the goal of the newly enacted fair value reporting requirements is to increase the overall transparency and accuracy of financial statements, and by these accounts, it seems to be doing just that. Proponents of the new standard agree: "…those who blame fair-value accounting for the current crisis are guilty of the financial equivalent of shooting the messenger. Fair value does not make markets more volatile; it just makes the risk profile more transparent. We should be pointing fingers at those at Lehman Brothers, AIG, Fannie Mae, Freddie Mac and other institutions who made poor investment and strategic decisions and took on dangerous risks." (Levitt & Turner 2008)

In response to the uproar surrounding fair value accounting, as a part of the Emergency Economic Stabilization Act of 2008, Congress mandated an investigation of mark-to-market accounting. Specifically, studies were to focus on the effects of fair value reporting on companies' financial statements, the quality of financial information being provided, the bank failures of 2008, the reasoning behind the Financial Accounting Standards Board's (FASB) requirements, and any changes or alterations that could potentially be made to the standard (Congress 2008). In response, FASB Chairman Robert H. Herz stated: "'we agree with the SEC and with our Valuation Resource Group that more application guidance to determine fair values is needed in current market conditions. Additionally, investors have asked for more information and disclosure about fair value estimates. Therefore, the FASB is immediately embarking on projects that directly address areas that constituents have told us are challenging in the current environment, and which will improve disclosures in financial reports.'" (FASB 2009)

It is clear that there have been many modifications to fair value accounting practices since the issue first blew up. However, a new set of questions has risen to the forefront – what has changed with the additional guidance issued on fair value? Additionally, has there been a shift in the way in which assets and liabilities are classified?

The following portions of this paper will address and expand upon these issues. First, a brief history of fair value accounting will be presented, followed by a summary of the FASB's Statement No. 157: *Fair Value Measurements* (SFAS 157), including explanations of the various concepts outlined within the statement. Subsequent to this will be a discussion of the FASB's additional guidance to SFAS 157. The remainder of the paper will focus on a detailed study of the changes, if any, in the way companies, specifically financial institutions, provide disclosures about assets and liabilities measured at fair value. If a shift has occurred, the reasons as to what has caused it will be investigated. Conversely, if there has been no change in the way the selected companies classify assets and liabilities at fair value, the reasoning as to why will be questioned.

FAIR VALUE ACCOUNTING

Fair value accounting, or the reporting of certain assets and liabilities based on market values or hypothesized market values, has long been present within standard accounting procedures; however, the methods of measurement have not. The fair value of a specific security, for instance, may be appraised by market analysts at one value; however, it may be reported at a much higher value on the books of the investor because it holds more value from their perspective. It is difficult to determine which amount truly reflects the actual fair value.

In an attempt to align the common perceptions of the definition of fair value, the FASB issued SFAS 157 in September 2006. SFAS 157 encompasses three major issues regarding fair value; an accurate definition, proper valuation techniques, and disclosure requirements. It is important to note that the issuance of SFAS 157 did not increase the requirements for the use of fair value measurements, but it provided guidance on how these measurements should be applied. In addition, SFAS 157 increased the disclosure requirements associated with fair value.

SFAS 157: DEFINITION OF FAIR VALUE

The FASB asserts that 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" (FASB 2006). Within this definition are four core features in measuring fair value.

The first feature is the idea of an exit price. The definition implies that the fair value measurement used should be the exit price, as opposed to the entry price, ignoring any aspect of historical cost. By definition, an exit price is one that would be received to sell the asset or paid to transfer the liability, as opposed to the entry price that would be paid to acquire the asset or received to assume the liability (FASB 2006). Although similar, from a conceptual standpoint, exit and entry prices are not one in the same because the price that was once paid to acquire an asset is not always the same as what may be received for selling it at a later date.

The second feature is the nature of fair value estimations, which emphasize that fair value is a market based measurement, not an entity specific measurement, "disregarding management's view of a specific asset or liability" (Cheng 2009). By this, it is meant that an item's fair value is to be based on what the market believes the fair value to be, not what management or firm personnel assume it to be in their opinions of value in use.

The third feature is the theoretical nature of transactions, maintaining that the actual exchange need not take place, but is instead the price that would be applied if it were to occur. Consequently, forced-sale prices, also known as fire sale prices, are not to be used in measuring fair value. A forced sale situation can occur, for instance, when a company is required to hold bonds of a certain rating (AAA) and rating agencies downgrade the bond; as a result, the company is forced to sell these investments because they do not meet requirements. The price that buyers are willing to pay may not justly reflect the investment's true economic value because the distressed nature of the sale forced buyers to lower the price in order to sell quickly, so reporting fair value as the sale amount would not be accurate.

Finally, the definition of fair value requires that it be reported as of the measurement date, regardless of current market conditions. The measurement date, or the specific point in time at which fair value inputs are being employed, is an important aspect of fair value accounting, especially due to the volatile nature of financial markets. This further emphasizes the hypothetical transaction rationale.

Valuation Techniques

SFAS 157 outlines three valuation techniques that should be employed when measuring fair value: the market approach, the income approach, and the cost approach. When using the market approach, prices generated by market transactions involving identical or similar assets or liabilities are used to determine fair value. In other words, "a rational investor would pay no more for an asset than the price at which comparable assets could be acquired in the market" (King 2008).

The income approach is a mathematical measure of fair value, which is often based on the present value of future discounted cash flows, or "the value of an asset on the basis of what income it can or will produce" (King 2008).

The cost approach equates fair value with the amount that would currently be required to replace an asset, in that "a rational investor would not pay more for an existing asset than it would cost today to buy or make the asset" (King 2008).

No single valuation technique will be applicable in all situations, thus SFAS 157 suggests that "valuation techniques that are appropriate in the circumstances and for which sufficient data are available shall be used to measure fair value" (FASB 2006). Furthermore, if the need for multiple valuation techniques is apparent, the FASB advises that "the results shall be evaluated and weighted, as appropriate, considering the reasonableness of the range indicated by those results" (FASB 2006).

Fair Value Hierarchy

Possibly the most significant component of SFAS 157 is the introduction of the FASB's fair value hierarchy. For assets and liabilities measured at fair value, a classification of Level 1, Level 2, or Level 3 is required. This hierarchy "prioritizes the inputs to valuation techniques used to measure fair value" (King 2008). The highest priority, Level 1, is given to those assets or liabilities for which there are quotable prices available within an active market for identical securities. Level 2 inputs are used only when active market prices are not available, at which point other observable inputs are employed, such as market prices for the sale of a similar, but not identical asset or liability. At the lower end of the hierarchy are Level 3 assets and liabilities. To the degree that observable inputs are either unavailable or inappropriate for

use in fair value measurements, Level 3 assets and liabilities are measured reflecting the reporting entity's assumptions, as well as the assumptions of market participants, while also taking into account the best information available (FASB 2006).

The objectives of fair value measurement and SFAS 157 remain the same across all levels of classification, that is, fair value is equal to the exit price in an orderly transaction among market participants at the measurement date. Therefore, if unobservable inputs are necessary, they should "reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability", and should also be based on the best information available to the reporting entity (FASB 2006).

REPORTING DISCLOSURES

The reporting disclosures required by SFAS 157 have created significant changes within the body of a reporting entity's financial statements. Assets and liabilities measured at fair value are first broken down into two broad categories: those that are measured at fair value on a recurring basis subsequent to initial recognition, such as trading securities; and those that are measured at fair value on a nonrecurring basis, for example, impaired assets (FASB 2006). Within these two segments, assets and liabilities are then divided among the appropriate classification level, according to the hierarchy.

Assets and Liabilities Measured on a Recurring Basis

When assets and liabilities are measured at fair value on a recurring basis, specific reporting requirements for each interim and annual period are necessary. The purpose of these disclosures is to enable users to assess the inputs used to develop the measurements (FASB 2006). These disclosures include:

1. The reporting date;
2. level of classification within the fair value hierarchy (Level 1, Level 2, Level 3);
3. for Level 3 assets/liabilities, a reconciliation of the beginning and ending balances, including total gains and losses; purchases, sales, issuances, and settlements; and transfers in and out;
4. total gains or losses included in earnings that are attributable to a change in unrealized gains/losses relating to the reported assets/liabilities, as well as a

description of where these unrealized gains/losses are reporting in financial statements; and

5. on an annual basis, a description of the valuation techniques used and any changes from prior periods (FASB 2006).

Assets and Liabilities Measured on a Nonrecurring Basis

The disclosure requirements for those assets and liabilities whose fair value is measured on a nonrecurring basis differ slightly from those that are measured regularly. Overall, the reporting requirements are less detailed, as these assets' and liabilities' fair values are less likely to become impacted as often as an item like a trading security. These disclosure requirements include:

1. Any fair value measurements recorded during the reporting period and the reasons for the measurements;
2. the asset's/liability's level of classification within the fair value hierarchy (Level 1, Level 2, Level 3);
3. for Level 3 assets/liabilities, a description of the inputs used and the information used in developing the inputs; and
4. annually, a description of the valuation techniques used and any changes in them from prior periods (FASB 2006).

FASB STAFF POSITIONS (FSP)

FSP FAS 157-1

Following the initial issuance of SFAS 157, many questions were raised pertaining to the standard and the new reporting requirements. The FASB took its first step towards addressing the public's concern by issuing FASB Staff Position No. 157-1 on February 14, 2008 with the objective of amending the extent of SFAS 157. Originally, the scope of SFAS 157 did not include fair value measurement issues related to FASB Statement No. 13: *Accounting for Leases*, as well as other accounting pronouncements that address the fair value measurements of lease classifications. Consequently, FSP FAS 157-1 amended the decision to exclude this type of fair value accounting, because many respondents and constituents agreed that the fair value measurement techniques required for accounting for leases were consistent with the objectives of SFAS 157 and should follow the same reporting requirements.

FSP FAS 157-2

FSP FAS 157-2 had little to do with addressing the content of SFAS 157; rather, it amended the effective date of the statement. Upon issuance, the requirements of SFAS 157 were to take effect for fiscal years beginning after November 15, 2007. However, this FASB Staff Position amended the effective date, delaying it until November 15, 2008 for nonfinancial assets and nonfinancial liabilities, with the exception of items that are recognized at fair value on a recurring basis.

FSP FAS 157-3

Following the issuance of SFAS 157 and the subsequent FASB Staff Positions, much uncertainty still remained as to market inputs among Level 2 and Level 3 assets and liabilities. FSP FAS 157-3 provided additional guidance for applying fair value measurements in inactive markets.

Respondents to the originally proposed amendment voiced issues about how a reporting entity's own judgments should be taken into account in an inactive market, how available inputs that exist within an inactive market should be assessed, and how the use of market quotes should be employed when measuring fair value in a market with little or no activity. The importance of these questions was weighted more heavily due to the timing of SFAS 157's issuance in the heat of the crisis. Were the market prices that assets and liabilities were being bought/sold for relevant, and furthermore, how should they have been factored into measuring the fair value of a reporting entity's assets and liabilities? Using market prices as Level 1 observable inputs would cause many companies to significantly devalue many of the assets and liabilities they held, which further emphasizes the importance of the debate over SFAS 157.

On September 30, 2008, the FASB, along with the Office of the Chief Accountant of the SEC, issued a press release, which stated that additional guidance would be provided immediately to users of fair value measurements within inactive markets.

FSP FAS 157-4

The previous FASB Staff Positions aided in resolving some of the misunderstandings and miscommunications brought about by SFAS 157, yet, questions still remained in the valuation

of assets and liabilities with limited or no market activity. In response to a distressed economy, on October 3, 2008, the Emergency Economic Stabilization Act of 2008 was enacted by Congress. Section 133 of this act mandated that an investigation of mark-to-market accounting be performed. As a result of the study, it was suggested that "additional measure should be taken to improve the application and practice related to existing fair value requirements (particularly as they related to both Level 2 and Level 3 estimates)" (SEC 2008). Consequently, FSP FAS 157-4 was issued in early April of 2009 to address the SEC's key issues with SFAS 157, primarily calculating fair value when market activity has significantly decreased and identifying factors that indicate a market transaction is not orderly.

Within the body of this report, the FASB provides a detailed listing as to what factors should be evaluated in determining whether there has been a significant decrease in market activity. The factors in FSP FAS 157-4 (FASB 2009) include, but are not limited to:

a) There are few recent transactions.
b) Price quotations are not based on current information.
c) Price quotations vary substantially either over time or among market makers (for example, some brokered markets).
d) Indexes that previously were highly correlated with the fair values of the asset or liability are demonstrably uncorrelated with recent indications of fair value for that asset or liability.
e) There is a significant increase in implied liquidity risk premiums, yields, or performance indicators (such as delinquency rates or loss severities) for observed transactions or quoted prices when compared with the reporting entity's estimate of expected cash flows, considering all available market data about credit and other nonperformance risk for the asset or liability.
f) There is a wide bid-ask spread or significant increase in the bid-ask spread.
g) There is a significant decline or absence of a market for new issuances (that is, a primary market) for the asset or liability or similar assets or liabilities.
h) Little information is released publicly (for example, a principal-to-principal market).

If any of these factors is present, it is suggested that further analysis of the transaction be conducted in determining fair value, as the currently available "market" prices may not accurately reflect an asset or liabilities actual fair value.

Determining whether a market transaction is orderly or not proves to be more difficult than evaluating market activity, however, FSP FAS 157-4 provides guidance on this topic. In sum, the FASB concluded that if the weight of the evidence denotes the transaction is not orderly, a reporting entity should place little or no weight on the transaction price when determining fair value or market risk premiums (FASB 2009). Conversely, if the weight of the evidence signifies that a transaction is orderly, the reporting entity should consider that price when assessing fair value measurements or market risk premiums. If no information is available to reason whether a transaction is or is not orderly, the transaction price should be used in determining fair value or market risk premiums but with less weight, as the transaction price may not be determinative of fair value (FASB 2009). When all factors have been considered, the overall message of FSP FAS 157-4 is that "it is the market participant's assumptions that should be employed in estimating fair value, not the reporting entity's assumptions with inside information regarding specific assets" (Cheng 2009).

In addition to the guidance issued by this FSP, amendments were made to SFAS 157 in relation to fair value disclosures. Two additional reporting requirements are necessary for reporting entities measuring certain assets and liabilities at fair value. First, entities must disclose the inputs and valuation techniques that are used to estimate fair value, as well as a discussion of any changes in valuation techniques on an interim and annual basis, as opposed to only on an annual basis as outlined in the original statement. Second, major categories of equity and debt securities being measured at fair value should be defined within the financial statements.

WHY IS FAIR VALUE IMPORTANT?

As previously mentioned, the new fair value hierarchy and related reporting disclosures had, and still have, the financial industry up in arms. Steps have been taken in order to align industry needs with FASB requirements, yet many questions still remain unanswered.

Congress' concern of fair value reporting may insinuate that "fair value accounting may be less effective than historical cost accounting" which "is usually framed by the issue of relevance versus reliability" (Trussel & Rose 2009). Advocates of fair value accounting

argue that current market measurements present figures that are more relevant than those of historical cost. Because reported amounts are more current, "investors and other decision-makers can exercise better market discipline and corrective actions regarding a company's decisions" (Trussel & Rose 2009). Conversely, proponents of historical cost accounting dispute the reliability of fair value accounting, claiming that "fair value accounting leads to excessive volatility and short-term fluctuations that don't reflect the value at maturity and don't represent the fundamentals of the underlying financial assets and liabilities" (Trussel & Rose 2009).

When reporting the assets and liabilities of a company on a balance sheet, it is crucial that all amounts be accurate and timely. These two qualities are what SFAS 157 strive to improve. Incorrect asset and liability values not only reflect a faulty balance sheet, but they also skew the results of many financial ratios that analysts use in comparing organizations. By requiring companies to report assets and liabilities at Level 1, Level 2, or Level 3, using the various market inputs, comparability and consistency are increased by providing more detailed information in the financial statement footnotes without altering the balance sheet itself. Consistency of financial statements translates into reliability, which is a crucial factor not only for the reporting unit, but for financial statement users, as well.

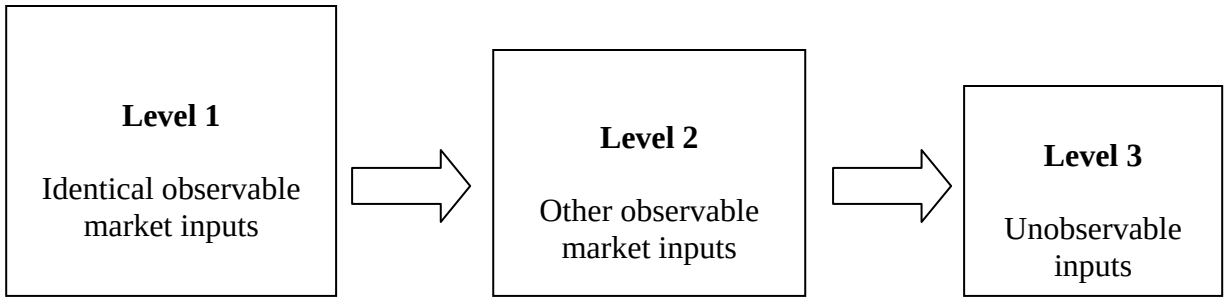
EARLY ADOPTION

Although the effective date of FASB Statement No. 157 was deferred, many companies chose to early adopt the standard for their 2007 fiscal year. The majority of these early adopters were financial institutions and banks. The reasons that these companies decided to enact SFAS 157 early vary from company to company, though the chief motive would be to become familiar with the requirements of SFAS 157 before it legally went into effect in 2008. Specifically, for financial institutions, which hold many trading securities and other complex assets and liabilities measured at fair value, getting a handle on the standards before they became widely enacted helped to foster learning about fair value reporting disclosures and also recognize any issues with the requirements of the statement. Accordingly, early adopters offered valuable input to the FASB when it was formulating FSP FAS 157-3 and 157-4.

Financial advantages were also an incentive for companies to early adopt SFAS 157. Many organizations feared a decrease in their bottom line upon implementing fair value requirements. If an organization were to early adopt, however, the changes to financial statements would become more gradual and have less of an impact on bottom line figures. For example, early adoption "may prove [to be] advantageous for companies that anticipate having impairment write-offs", which may be the result of having overpaid for an acquired business (Gaynor 2007).

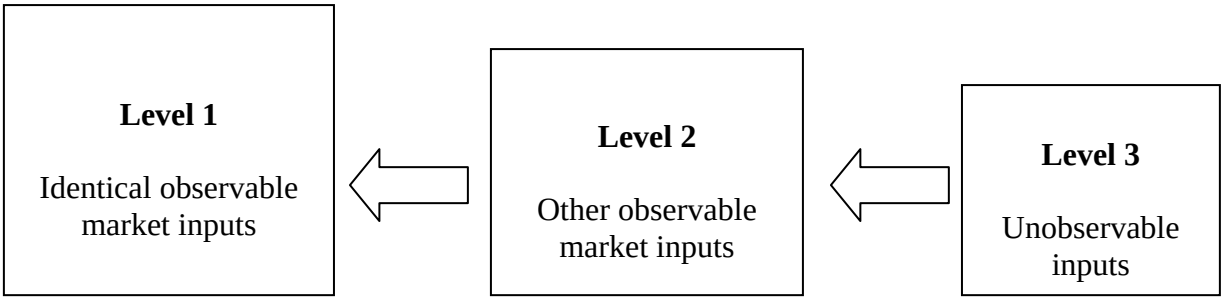
HYPOTHESIS

A two part hypothesis has been developed for this study on fair value measurements. The first piece, or Hypothesis #1, stems from the implementation of fair value requirements and the lack of guidance that created a sense of fear when it came to reporting assets and liabilities according to SFAS 157. Consequently, it may appear that early adopters classified the majority of their assets as Level 1 or Level 2, and very few in the Level 3 category. In a sense, a Level 3 classification had a negative connotation because there was so much uncertainty as to what qualified as an "orderly transaction" or an "inactive market". As such, Hypothesis #1 predicts that upon implementation, the majority of an entity's assets measured at fair value will be in the Level 1 and Level 2 categories; however, as additional guidance is issued throughout the test period, a shift will occur from a large percentage of assets and liabilities being labeled as Level 1 and Level 2 towards the lower end of the hierarchy, or Level 3 classifications (see diagram below).



With time, companies may have felt less pressure to use only Level 1 and Level 2 inputs in classifying assets and liabilities, and instead began using the FASB's guidance to better judge market activity and orderly transactions.

The second part of this hypothesis, or Hypothesis #2, surmises that as market activity and liquidity started to improve, a shift back to a majority of Level 1 and Level 2 classifications will occur due to the increased number of observable market inputs. The diagram below illustrates this shift back to observable market input categorizations.



Hypothesis #2 does not suggest that Level 3 inputs have once again become perceived as unreliable. On the contrary, fair value measurements are now better understood and less harshly criticized by reporting entities, market analysts, and the general public than they were originally.

It would be improbable to suspect that each of these hypotheses could occur independent of one another, especially with the financial markets being in such havoc during the test period. Therefore, it is also expected that Hypotheses #1 and Hypotheses #2 will maintain a direct relationship throughout the study. By this, it is meant that as early guidance was being issued by the FASB, market conditions continued to deteriorate, so as a result, the shift towards Level 3 classifications will occur. In addition, as later guidance by the FASB became available, conditions within financial markets saw slight improvement, both aiding in a shift back towards Level 1 classifications.

DATA COLLECTION

To measure the effects of SFAS 157 on an entity's financial statements, data has been collected from financial institutions that chose to early adopt the standard. These companies have been selected based on specific criteria.

First, a list of the S&P 500 constituents was obtained and broken down by sector. The Financials sector, which contains a total of seventy-nine constituents (as of January 8, 2010) was used, as the probability of the companies listed within this sector having early adopted SFAS 157 is higher than the other sectors.

After the list of constituents within the Financials sector was gathered, it was ranked from highest to lowest based on sales. Subsequently, the top eight companies were assessed and it was determined if early adoption of SFAS 157 occurred for fiscal 2007.

Of the eight companies selected, six chose to early adopt the fair value standard. This six company sample consists of Bank of America, Citigroup, JP Morgan Chase, Wells Fargo, Goldman Sachs, and Morgan Stanley. The 10-Q/10-K reports of each of these companies for all four quarters of 2007 and 2008 and the first three quarters of 2009 (the "test period"), have been analyzed, specifically focusing on the fair value disclosures of certain assets and liabilities, i.e. Level 1, Level 2, or Level 3. For reference purposes, Table 1A within Appendix A contains a listing of the sample companies' quarterly ending dates, which vary from company to company.

RESEARCH FINDINGS

Expectations

As it has been previously discussed, fair value measurements have become one of the "scapegoats" of the current economic crisis. Many continue to blame mark-to-market accounting requirements and disclosures for numerous unwarranted write-downs on assets, as well as declining balance sheet values. In many cases, the write-downs that company's were required to make lead to distressed sales of assets, which caused fire sale prices to be indicative of market value. This lead to additional write-downs by other companies because, according to the guidelines presented within SFAS 157, these prices were observable inputs.

That being so, each time a company wrote down an asset, it is likely that it too would be sold at a fire sale price, further perpetuating this downward spiraling cycle.

Although the write-downs and forced sales appeared to strike the financial industry quite suddenly, these events did not occur overnight. A quick overview of the financial events that were occurring over the test period will assist in analyzing the results of the study. In mid-2007, "Standard and Poor's and Moody's Investor Services [downgraded] over one-hundred [bond issues] backed by second-lien subprime mortgages", in addition to placing a credit watch on another six-hundred and twelve securities backed by subprime residential mortgages (Federal Reserve Bank of St. Louis 2010). This event marked the beginning of the turmoil, in that the downgraded rating of these bonds triggered many of the fire sale prices by these bondholders. Many companies are required to buy and hold bonds of only specific ratings, and therefore, if the ratings are downgraded below company requirements, they must be sold immediately, hence fire sale prices.

As 2007 advanced, the pressure within U.S. financial markets continued to intensify, and liquidity was beginning to weaken progressively. Companies continued to write down assets using the fire sale prices, and the idea of what a valid "observable market input" should be was being called into question. As a result, it would be expected that towards the latter half of 2007, percentages of assets categorized as Level 3 would have increased because less and less activity was occurring in the market, while Level 1 asset percentages would have dropped for the same reason.

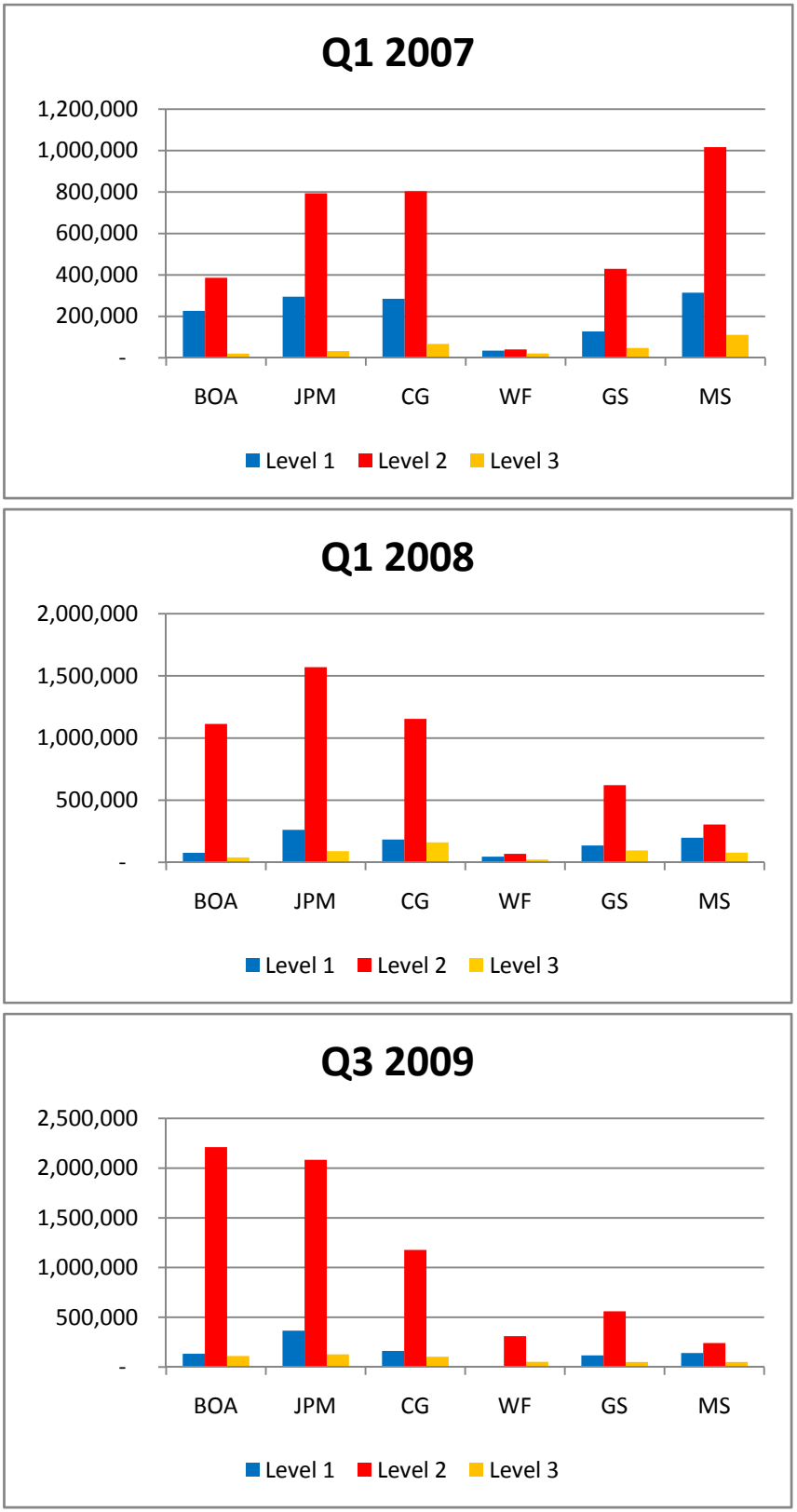
The end of 2007 saw a slowing economy portrayed by problems within the market coupled with slow reactions by market participants. At first, the events were not perceived to be of high importance. However, by February of 2008, President Bush signed the Economic Stimulus Act of 2008, in hopes of averting a further downturn in the economy. Yet, conditions continued to worsen as the year wore on. The collapse of Bear Stearns in the first quarter of 2008 was the first disastrous financial event of many, causing the first round of catastrophic panic within the market. By this point in time, it was known that a financial crisis was impending within the U.S.; however, the disintegration of Bear Stearns illustrated just how serious it was about to become.

Fears came to fruition in September 2008, when Lehman Brothers filed for Chapter 11 bankruptcy, and the SEC announced a temporary emergency ban on short selling, or selling securities of assets owned by someone other than the seller, in the stocks of all companies in the financial sector. During this period, "Merrill Lynch, in a single discreet move to clean up its balance sheet, sold a chunk of distressed mortgages at a 78% discount" which "suddenly became the market discount, and everyone had to mark down their own impaired mortgages by at least the same percentage" (Sanders 2009). Merrill Lynch's activity is a chief example of the issue surrounding fire sale prices that was previously discussed, and with occurrences such as these, one would assume that asset levels shifted greatly during this time. Rises in percentages of Level 2 and especially Level 3 assets are to be expected due to the increased illiquidity of markets, accompanied by a consequential decrease in the Level 1 category.

In October 2008, as previously mentioned, the Economic Stabilization Act of 2008 was put into effect, which established the Troubled Asset Relief Program (TARP), a program of the U.S. government set in place to procure assets and equity from financial institutions to aid in supporting the financial sector. In December 2008, the SEC presented the results of a study mandated by the Economic Stabilization Act, which concluded that fair value measurement requirements according to SFAS 157 would continue to remain in effect; however, additional guidance relating to inactive markets needed to be issued as soon as possible. Questions relating to what defined an "inactive market" or "unusual transaction" still puzzled SFAS 157 users, and the SEC recognized this issue. The FASB understood the predicament and needed to address the public in a clear, simplified manner. The required guidance was available by April of 2009, via FSP FAS 157-4, which directly focused on the public's apprehension towards SFAS 157 requirements.

Fortunately, as 2009 progressed, financial markets and conditions began to see some improvement from the previous year. Markets were becoming more liquid than they had been in late 2007 and 2008, and the issue surrounding fire sale prices/unusual transactions and inactive markets was reaching clarification. These improvements within financial markets indicates that towards the end of the test period, fair value asset levels should have moved in

Figure 1 - Assets Measured at Fair Value in Dollars
(amounts expressed in millions)



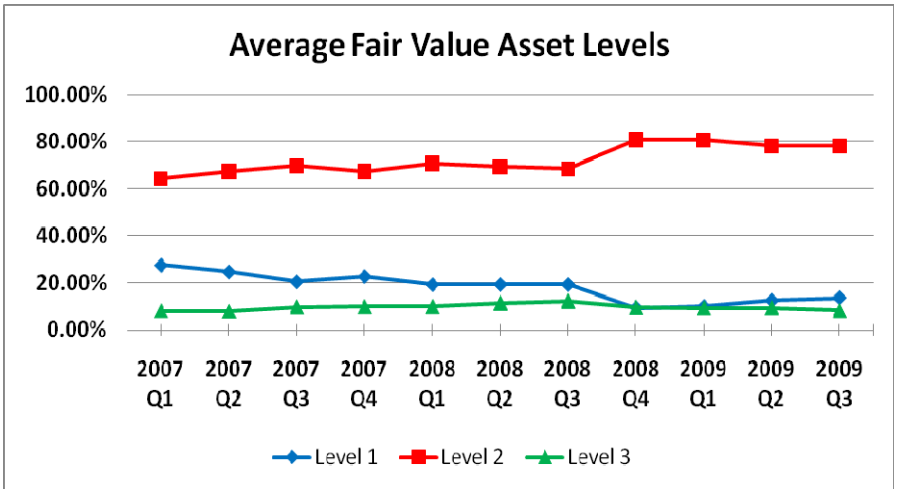
an opposite direction from their previous trend. This would result in a decrease of Level 3 assets and a simultaneous increase in Level 1 and Level 2 assets.

Considering the series of events that were just discussed over this eleven quarter time span, it is clear that fluctuations between the three classification levels of assets measured at fair value should exist. Data for each of the sample companies has been gathered as described, and a snapshot of the results can be seen in Figure 1 – Assets Measured at Fair Value in Dollars (left). It is evident that the amounts of Level 1, Level 2, and Level 3 assets changed significantly throughout the test period. The

dollar amounts on the graphs (expressed in millions) portray a snapshot of the fair value asset levels at a given point in time.

The findings within Figure 1 do not show the three fair value levels as a percentage of total assets measured at fair value, which makes a comparison of the sample companies side-by-side somewhat inconsistent. However, the changes in the dollar amounts of assets measured at fair value are extremely relevant to this study, in that they show how the various write-downs and acquisitions affected each of these entities. (Turn to Appendix A, Graphs 1A-7A for a more detailed illustration of the fair value asset dollar amounts for each of the companies over the test period.) Studying the dollar amounts of fair value assets, as opposed to percentages of the total, gives a good indication as to the various mixes of assets that each of the companies possessed, which is an important factor to note when following the shifts in fair value classification levels.

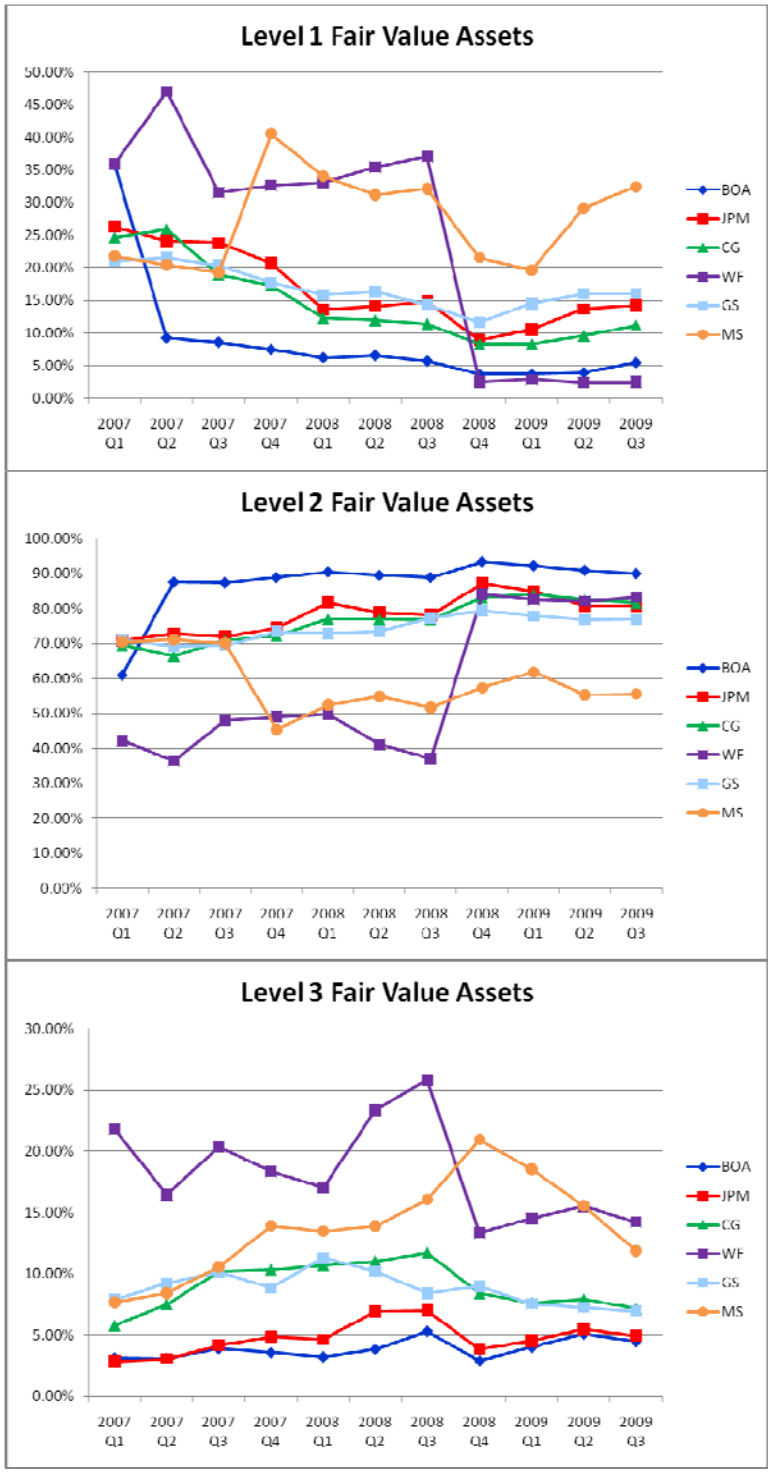
Figure 2 - Fair Value Asset Levels (%)



Overall Analysis

Now that the initial findings of the fair value asset levels for the sample companies have been introduced, the first portion of the in depth analysis will be presented. An aggregation of all six sample companies' Level 1, Level 2, and Level 3 assets was performed to generate overall averages for the test period. Figure 2 – Fair Value Asset Levels (%) clearly shows that the largest percentage of total assets throughout the examined time span were Level 2 assets, followed by Level 1 and then Level 3. This result is consistent with the Hypothesis #1, stating that the majority of the sample companies' assets measure at fair value would be in the Level 1 and Level 2 categories.

Figure 3 - Assets by Fair Value Classification Level on a Company by Company Basis



Furthermore, the percent of total assets classified as Level 1 assets was larger than the percentage of Level 3 assets, except for the fourth quarter of 2008 into early 2009. At this point in time, the two levels held virtually the same percentage of total assets, at approximately 10% each. As 2009 continued, however, Level 1 assets regained a noticeably higher percentage of total assets over the Level 3 category. This result remains consistent with Hypothesis #2, which argues that as market liquidity improved throughout 2009, a shift back to Level 1 and Level 2 asset classifications would occur.

On average, for the test period, Level 1 assets comprised 18% of total assets, Level 2 comprised 72%, and Level 3 comprised 10% of total assets.

Level by Level Analysis

It is common to assume that with the implementation of any new standard, changes will occur over the initial execution period. The requirements of the fair value hierarchy for assets and liabilities being measured at fair value is no exception to this theory. From the time the standard was first implemented for the six sample companies (first quarter 2007) to the end of the test period (third quarter 2009), many changes and shifts occurred within the levels of fair value classification. This activity can be seen in Figure 3 – Assets by Fair Value Classification Levels on a Company by Company Basis.

Although many of the jumps and spikes may appear insignificant in comparison to others, these minor shifts are just as noteworthy as the major ones. Even the slightest change in the percentage of total assets for a particular classification level, which can represent billions of dollars, speaks of a considerable event that may have occurred within a company, the market, or potentially both. For instance, when Bearn Stearns was under stress in the first quarter of 2008, it was acquired by JP Morgan, one of the sample companies. When observing JP Morgan's activity within these graphs for that time period, there is no significant shift in any of the asset levels, yet a notable event with the company occurred.

What is more significant than looking at the changes among the fair value levels for each company over the test period is taking note of the changes as a whole and how they interact with one another. Since the six sample companies operate within the same sector, the various graphical representations of the fair value classifications are increasingly telling of the potential impact of this standard on the financial industry. Clearly there are outliers that exist within each of the levels, however, an average trend in the way the percentages shift can be observed. By taking a step back and studying these three graphs as if they were one, the depictions of the events that were reviewed previously and the market activity during the test period are visibly defined.

Individual Company Analysis

Next, taking one step even further back, the events that occurred within each one of the sample companies over the eleven quarter test period will be examined individually.

Bank of America

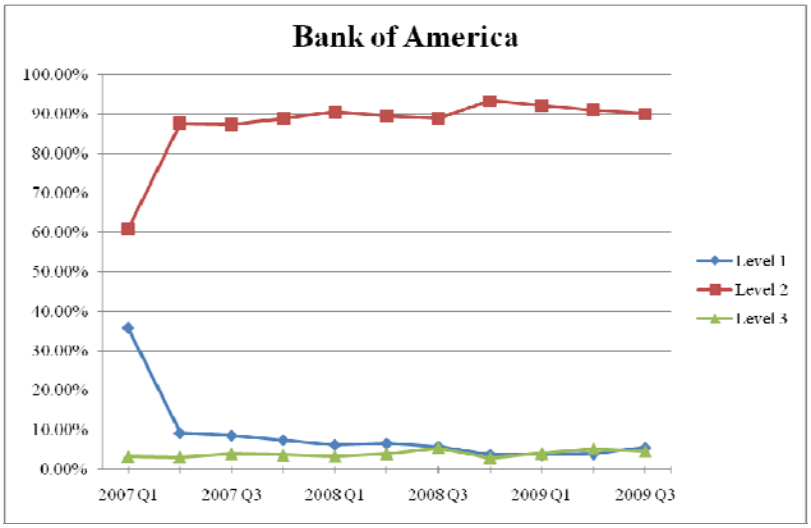


Figure 4 - Bank of America

When Bank of America initially adopted SFAS 157, Level 1, Level 2, and Level 3 assets made up 36%, 61%, and 3% of total assets measured at fair value, respectively. However, this was soon to change in the beginning of 2007 with the purchase of ABN AMRO North American Holding Company, the parent company of LaSalle Banking Corporation. This acquisition had an obvious impact on fair value measurements, illustrated by the sharp increase in Level 2 assets and the decrease in the Level 1 category in the second quarter of 2007. This change not only increased total assets, but created a large shift in the divide among the three levels, with Level 2 increasing from 61% of total assets to just fewer than 90% of total assets.

Another major acquisition made by Bank of American occurred in January of 2009 with the purchase of Merrill Lynch. With this acquirement, Bank of America added $37.3 billion of net derivative assets measured at fair value, $2.3 billion of which were classified at Level 3.

The trend shown here for Bank of America is consistent with the previously stated two part hypothesis. Upon initial adoption, the majority of the company's assets were classified as Level 1 and Level 2. Shifts were also consistent with market liquidity. Level 1 assets declined, beginning in mid 2007, as capital markets' liquidity dropped. The prediction of Hypothesis #2 is not as noticeable on the graph; however, an increase in Level 1 assets did

occur as markets liquidity improved in late 2009. For the detailed information about Bank of America's fair value categorizations, refer to Tables 1B-1 and 1B-2 in Appendix B.

Citigroup

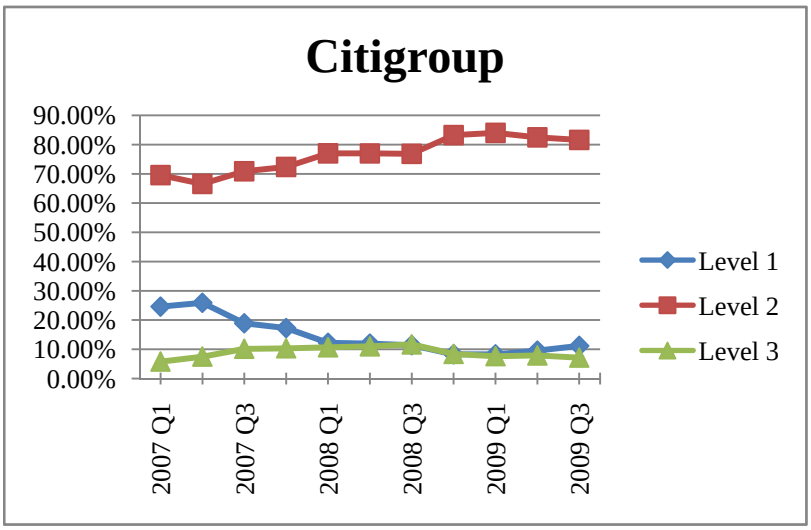


Figure 5 - Citigroup

Unlike some of the other sample companies, Citigroup shows no major spikes or drops throughout the test period in relation to fair value level changes. That is not to say, however, that the changes among the levels are nonexistent or insignificant. Citigroup's divide among Level 1, Level 2, and Level 3 assets is consistent with Hypothesis #1, with Level 1 and Level 2 assets comprising nearly 95% of total assets measured at fair value.

The company's Level 1 assets also followed the same trend that was seen in the market, with steady drops from approximately 25% at the end of 2007 to under 10% in fiscal 2008. Additionally, increases above 10% of total assets measured at fair value in Level 1 assets occurred in the second and third quarters of 2009. This activity is a perfect portrayal of Hypothesis #2, clearly illustrating the steady drop in Level 1 assets followed by an increase in 2009 as market activity improved. Tables 2B-1 and 2B-2 in Appendix B provide a more detailed layout of Citigroup's fair value classifications.

In the latter portion of 2008, Citigroup made sizeable transfers out of Level 2 classified assets into the level 3 category. In addition, nearly $4 billion in realized and unrealized losses in asset write-downs were recorded. A large portion of the level transfers were offset during this

time as a result of better vendor pricing for corporate debt. To explain further, when assets such as this corporate debt were assigned a classification of Level 2 instead of Level 3, it was due to the fact that more reliable inputs were available within the market for participants to employ. Yet at the same time, other assets were being transferred from Level 2 down to Level 3 for the opposite reason of not enough inputs being available. This counterbalancing act emphasizes the point that although fluctuations in the trend lines are small, they are increasingly significant.

JP Morgan Chase

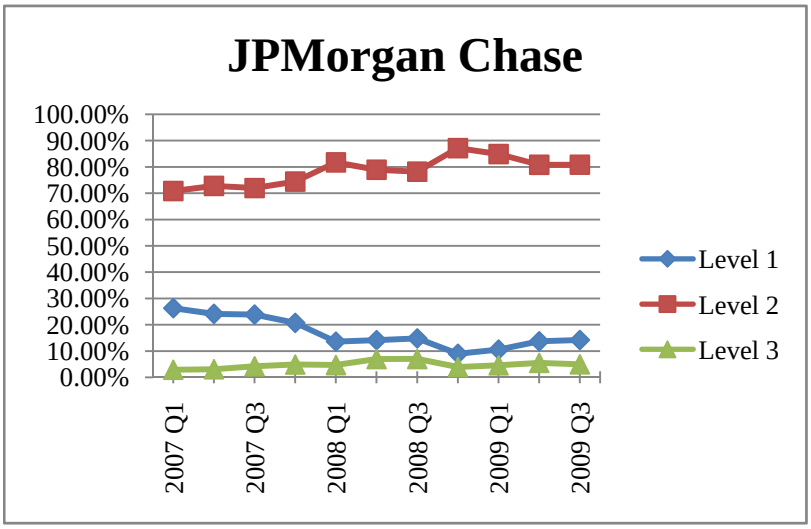


Figure 6 - JP Morgan Chase

As one of the biggest players within today's current financial industry, JP Morgan Chase did not go unaffected by fair value measurement requirements. These slight increases and decreases among each level, with no one change exceeding 10%, represent billion dollar transactions. For instance, JP Morgan Chase's acquisition of Bear Stearns took place in the first quarter of 2008, which resulted in an overall decrease in Level 2 classifications from almost 82% to approximately 79%, while Level 3 percentages rose accordingly by 2.3%. This change represents a $2.8 billion reclassification to Level 3 due to a lack of Level 2 inputs. However, many of the reclassifications that occurred over the test period are offset by transfers into and out of the other levels. As we saw with Citigroup, better pricing of corporate debt assets allowed the company to reclassify Level 3 assets to Level 2, while

decreased market liquidity for other assets caused a shift from Level 2 to Level 3. Similar events took place at JP Morgan Chase in regards to assets measured at fair value, which resulted in many of the transfers into and out of classification levels being offset, as well. To view these changes in both dollar amounts and percentage shifts, see Tables 3B-1 and 3B-2 in Appendix B of this report.

The percentages within each category at implementation prove to be consistent with the theory of Hypothesis #1, with Level 1 and Level 2 assets containing the majority. JP Morgan Chase's trend follows the pattern of the expected trend as well, in that Level 1 and Level 3 percentages become increasingly closer at the end of the 2008 fiscal year, and continue to separate again in late 2009 as financial conditions improved. This trend is consistent with the ideas within Hypothesis #2.

Wells Fargo

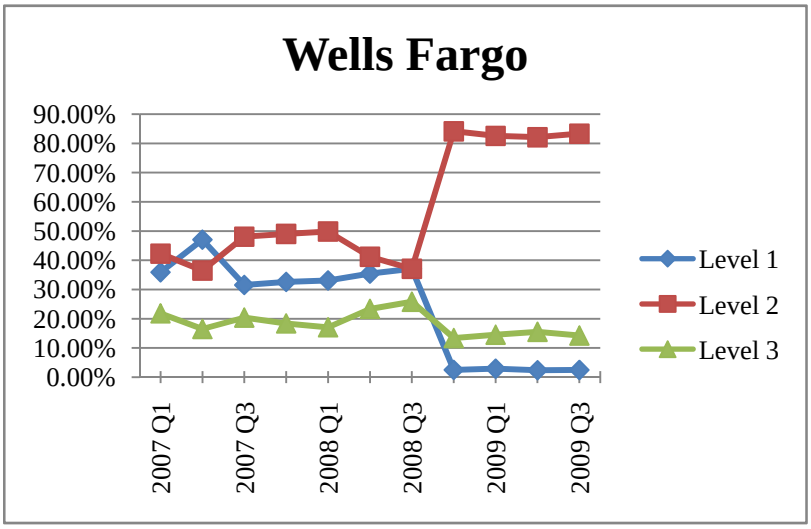


Figure 7 - Wells Fargo

Results from Wells Fargo, unlike the other companies, do not support either hypothesis. Although Level 1 and Level 2 assets at implementation do contain the majority of total assets measured at fair value, Level 3 assets are significantly higher compared to the other sample companies. In fact, until Wells Fargo purchased Wachovia in the fourth quarter of 2008, the split between Level 1, Level 2, and Level 3 assets measured at fair value as a percent of the

total was much more even than the other companies, with 36%, 42%, and 22%, respectively, in the first quarter of 2007.

Furthermore, in mid-2007 when the turmoil began, Level 1 assets increased while Level 2 and Level 3 dropped. Just prior to the purchase of Wachovia, Wells Fargo had the most even distribution of Level 1, 2, and 3 assets of any company throughout the entire test period. This almost even split indicates that Wells Fargo had a much different mix of assets measured at fair value than the other sample companies up until the acquisition. As a result, these findings are inconsistent with Hypothesis #1. This difference is most likely a result of the traditional banking nature of Wells Fargo, as opposed to an investment nature.

As for Hypothesis #2, Wells Fargo's assets measured at fair value acted exactly opposite as expected. It is evident from this graph that Wells Fargo underwent a massive change at the end of fiscal 2008 with the acquisition, which is depicted graphically by the large jump in Level 2 assets, as well as a significant drop in the Level 1 category. Throughout 2009, the percent of assets classified as Level 1 held a constantly lower percentage of the total than Level 3, a trend that is not seen with any of the other sample companies. Instead, it was expected that percentages of Level 1 assets would increase above Level 3. It is evident that this did not occur, as Level 3 assets consistently more than double the Level 1 category for the last four quarters of the test period. The exact dollar amounts and percent changes for Wells Fargo for the test period are available in Tables 4B-1 and 4B-2 of Appendix B.

Goldman Sachs

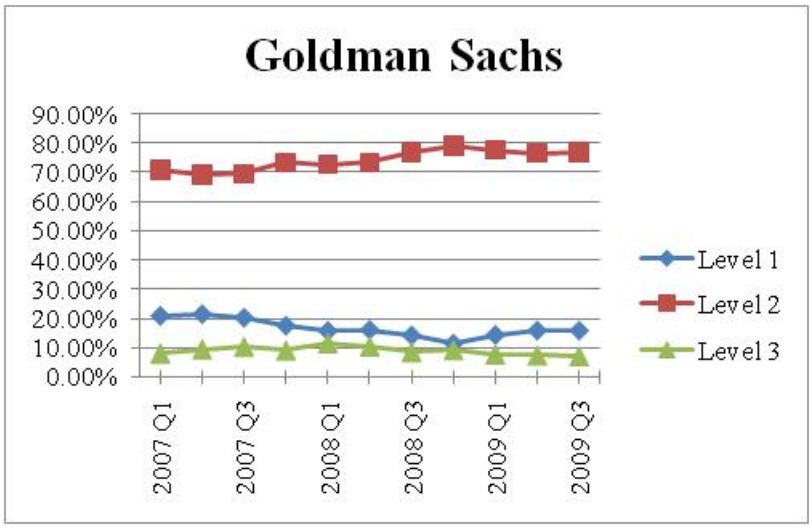


Figure 8 - Goldman Sachs

Of all six sample companies tested, it can be said that Goldman Sachs has the most "steady" trend line. This is not to suggest that minimal reclassification occurred within the company for the duration of the test period. In fact, the exact opposite is true. Although billions of dollars were transferred among the three classification levels, many reclassifications offset one another, allowing the trend lines to remain relatively constant. This activity is similar to that of Citigroup and JP Morgan Chase. Throughout the test period, Level 1 assets stayed approximately between 10% and 20% of the total, Level 2 between 70% and 80%, and Level 3 between 0% and 11%.

For instance, in the first quarter of 2009, about $37.4 billion of structured credit derivatives were transferred into the Level 3 category as a result of diminishing market activity. However, this transfer was partially offset by $17.7 billion of single name CDSs being moved up the hierarchy from Level 3 to Level 2. So as it may seem that the adjustments are slight, even the most minuscule shifts among the levels depicted in the graph represent multi-billion dollar transfers.

Goldman's Sachs' split among the three classification levels at implementation is consistent with Hypothesis #1, seeing Level 1 and Level 2 assets comprise the majority of the total with a combined 90%. The prediction of the drop in Level 1 assets in 2007 and 2008 followed by

a rise with increased market activity at the end of 2009 also makes the results consistent with Hypothesis #2. Detailed information on Goldman Sachs' fair value classifications is outlined in Appendix B within Tables 5B-1 and 5B-2.

Morgan Stanley

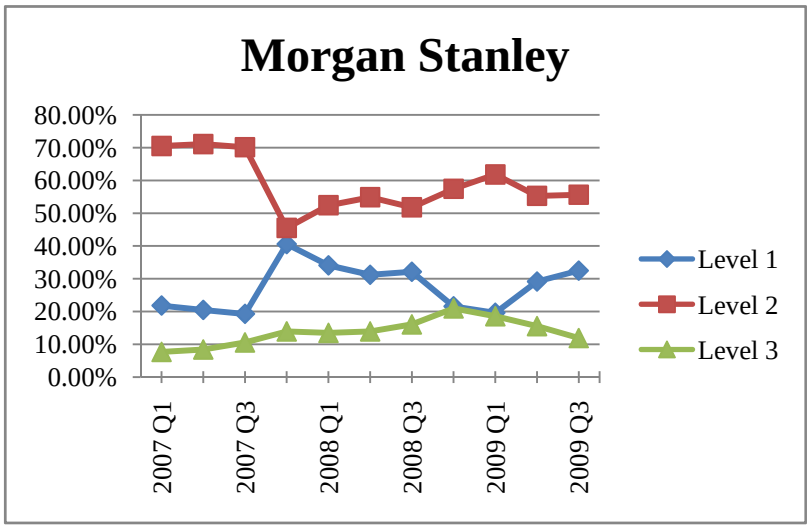


Figure 9 - Morgan Stanley

A great deal of activity occurred at Morgan Stanley during the test period. Primarily, the company took $9.4 billion worth of write downs in the fourth quarter of 2007 due to mortgage related debt. This explains the large change seen on the graph, because a majority of these write downs were classified at Level 2; therefore, after being written off, the percent of total assets measured at fair value among the three levels adjusted proportionally. This is shown by the rise in Level 1 from 20% to 40% and Level 3 assets from 10% to about 15% at the time of the write-down. Level 2 assets dropped from 70% to 45%, as well.

Morgan Stanley's graphical representation of assets measured at fair value is a clear example of the ups and downs that have occurred in the financial markets over the past three fiscal years. It is easy to pinpoint where assets were written down, when markets were inactive, and when the markets started to become active again. Both the divide among the fair value categories at implementation, as well as the trends in market fluctuations, are consistent with the proposed hypothesis, resulting in consistence with both Hypotheses #1 and #2. Tables 6B-1 and 6B-2 within Appendix B contain detailed fair value data for Morgan Stanley.

DISCUSSION & CONCLUSION

Analyzing these six sample companies that operate within the financial industry has shown an illustrious portrayal of the recent financial crisis. From transfers among asset fair value levels to write downs and acquisitions, countless transactions have occurred. Nevertheless, as indicated in the following table, the trends generally support both Hypothesis #1 and Hypothesis #2.

	Hypothesis #1	Hypothesis #2
Bank of America	Consistent	Consistent
Citigroup	Consistent	Consistent
JP Morgan Chase	Consistent	Consistent
Wells Fargo	Inconsistent	Inconsistent
Goldman Sachs	Consistent	Consistent
Morgan Stanley	Consistent	Consistent

Upon initial implementation at the start of fiscal 2007, Level 1 and Level 2 assets contained the majority of the total for the sample companies, leaving Level 3 with as little as 3% of the total in some cases. Breaking this down further, however, Level 2 assets comprised much higher percentages of the total than Level 1 throughout the test period. Although it was assumed that more assets would be categorized as Level 1, it makes sense that more were Level 2 classifications. With such unusual market activity during the test period, it was very difficult for entities to define whether a market was active or inactive. Companies found it challenging to label their assets as one extreme or the other, those extremes being the Level 1 (observable inputs) and Level 3 (lack of observable inputs) categories. Instead, the Level 2 category became a balance between the two extremes, the reason that it was the most employed asset fair value category.

In relation to the reclassifications of specific assets from one fair value category to another, many transfers occurred from quarter to quarter, yet the fair value amount of each particular asset has made the analysis difficult. In other words, the fair value, or 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, can increase or decrease drastically from one quarter to the next.

For instance, assume a specific trading security, valued at $10, was categorized as a Level 2 asset due to minimal observable inputs. As market liquidity decreased and even less reliable inputs became available, the asset was reclassified to a Level 3 asset. However, according to the inputs used to determine fair value, it is indicated that this particular trading security's fair value is $5. Now, not only has a reclassification occurred causing Level 3 assets to increase and Level 2 assets to decrease, the dollar amount of total assets measured at fair value has also decreased. This is the issue that many of the sample companies faced when they were forced to take large write downs on assets measured at fair value. This type of situation is depicted within a graph in a previous section of the report, Figure 1 – Assets Measured at Fair Value in Dollars, as well as in Graphs 2A-7A in Appendix A. Not only do the dollar amounts of assets within each fair value category change from quarter to quarter, but so do the amounts of total assets measured at fair value as described.

Nevertheless, the shifts that occurred among the three fair value categories paint a perfect picture of what was occurring in the financial markets at this time. It is easy to pinpoint the height of the crisis from mid-2007 to the fall of 2008, due to the steady declines in Level 1 assets and the simultaneous rise in Level 3. From a broad perspective, these results show that fair value measurement requirements have had a pro-cyclical effect on the financial industry. During boom periods within the market, financial instruments, such as mortgage backed securities, were marked up in value, possibly higher than they should have been. Yet during periods of turmoil, prices were driven down to unrealistically low levels, depressing market conditions beyond their true extent. These fair value amounts, which essentially were temporary values, dropping so low caused the market to slow out of fear; therefore, less observable inputs existed. When market participants began to panic, instead of selling assets

at the fire sale prices seen in the market, they chose to keep these assets on their books and write them down to Level 3 assets. The shifts in fair value classification levels became an outcome of this pro-cyclical effect, making it clear that a correlation does exist between pro-cyclicality and fair value measurements, but not a direct one.

Fair value measurements clearly had an effect on the financial crisis, but they are not the reason that the disaster occurred. They did without a doubt magnify the negative effects of the chaos, but in no way caused it. Although the findings were generally consistent with the hypotheses, there were many simultaneous events occurring during the test period that the analysis was naturally limited. Nevertheless, as indicated by a study conducted by the International Atlantic Economic Society (Bhamornsiri, et al. October 2009), further research on the economic impact of SFAS 157 has been done. A follow up study consisting of additional research in the fair value asset categories of financial institutions is necessary in order to clarify the transfers into and out of Level 1, Level 2, and Level 3 fair value classifications.

APPENDICES

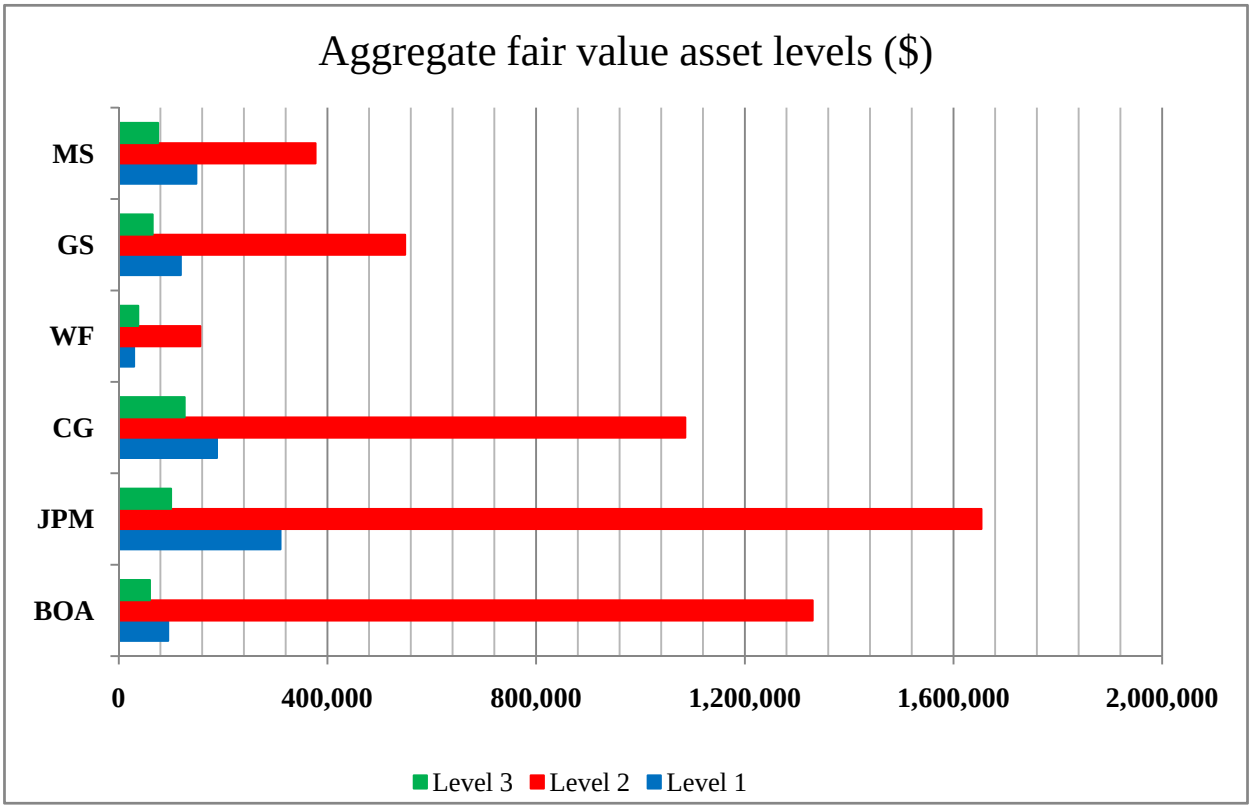
Appendix A

Quarterly Ending Dates					
	FY	**Q1**	**Q2**	**Q3**	**Q4**
Bank of America	2007-2009	Mar 31	Jun 30	Sep 30	Dec 31
Citigroup	2007-2009	Mar 31	Jun 30	Sep 30	Dec 31
JP Morgan Chase	2007-2009	Mar 31	Jun 30	Sep 30	Dec 31
Wells Fargo	2007-2009	Mar 31	Jun 30	Sep 30	Dec 31
Goldman Sachs	2007	Feb 23	May 25	Aug 31	Nov 30
	2008	Feb 29	May 30	Aug 29	Nov 28
	2009*	Mar 27	Jun 26	Sep 25	Dec 31
Morgan Stanley	2007	Feb 28	May 31	Aug 31	Nov 30
	2008	Feb 29	May 31	Aug 31	Nov 30
	2009*	Mar 31	Jun 30	Sep 30	Dec 31

*switched to a 12/31 year end

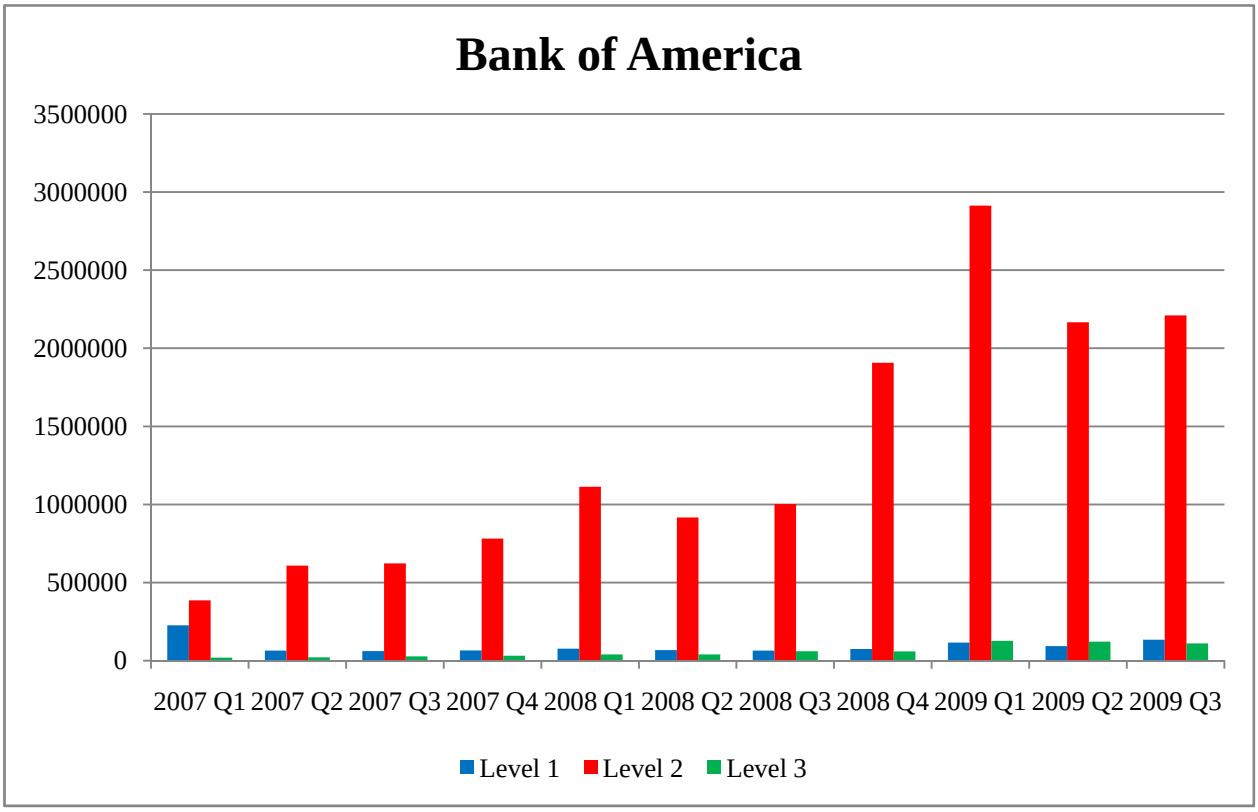
Table 1A

The graph below shows the average (the sum of the eleven quarters divided by eleven) dollar amount of assets measured at fair value for each company at the three levels for the test period.

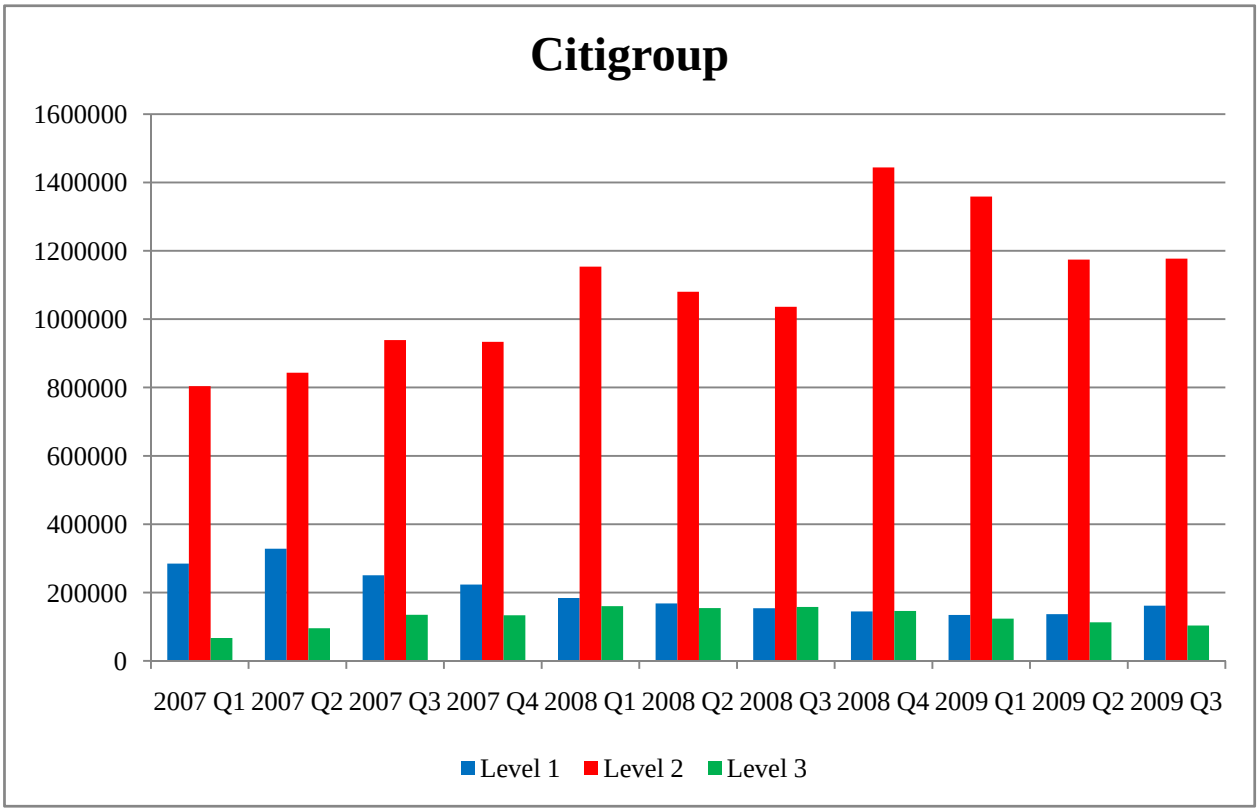


Graph 1A

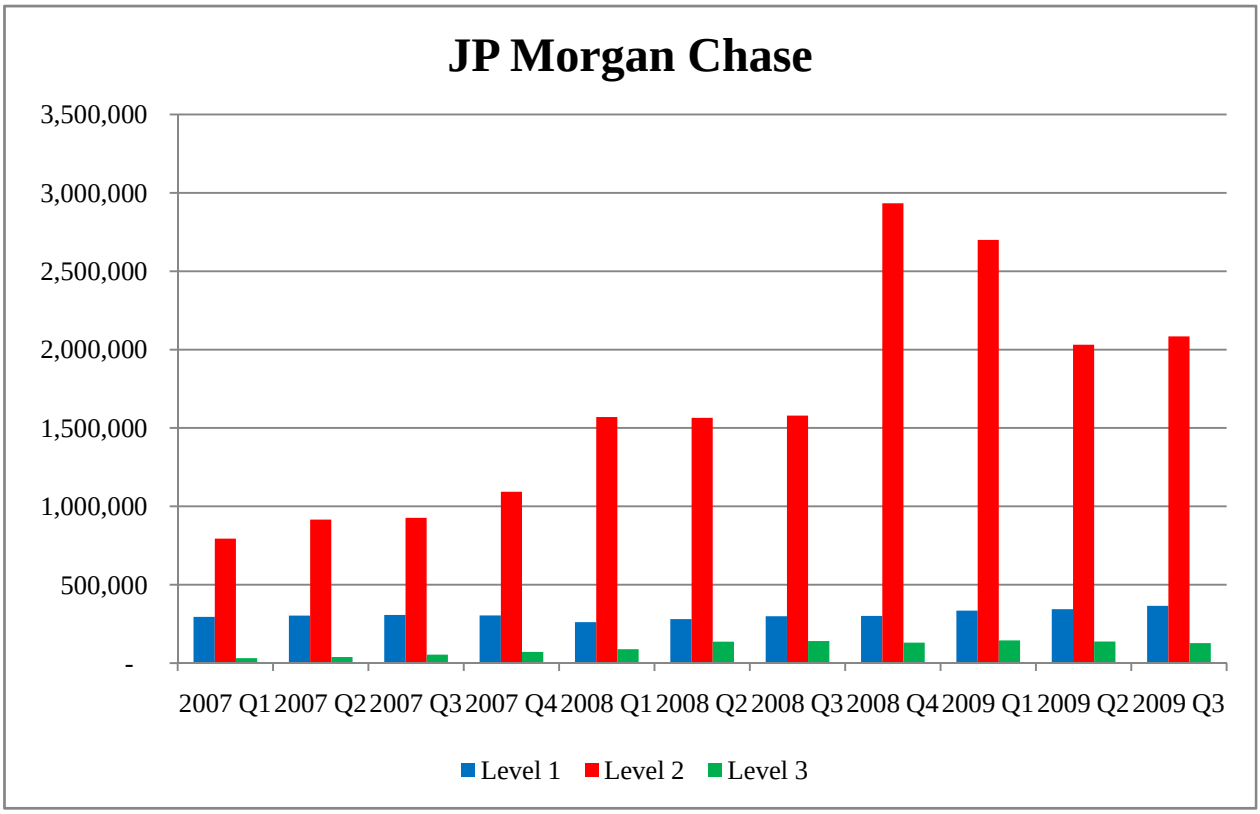
The following graphs depict the dollar value of assets within each fair value level throughout the duration of the test period.



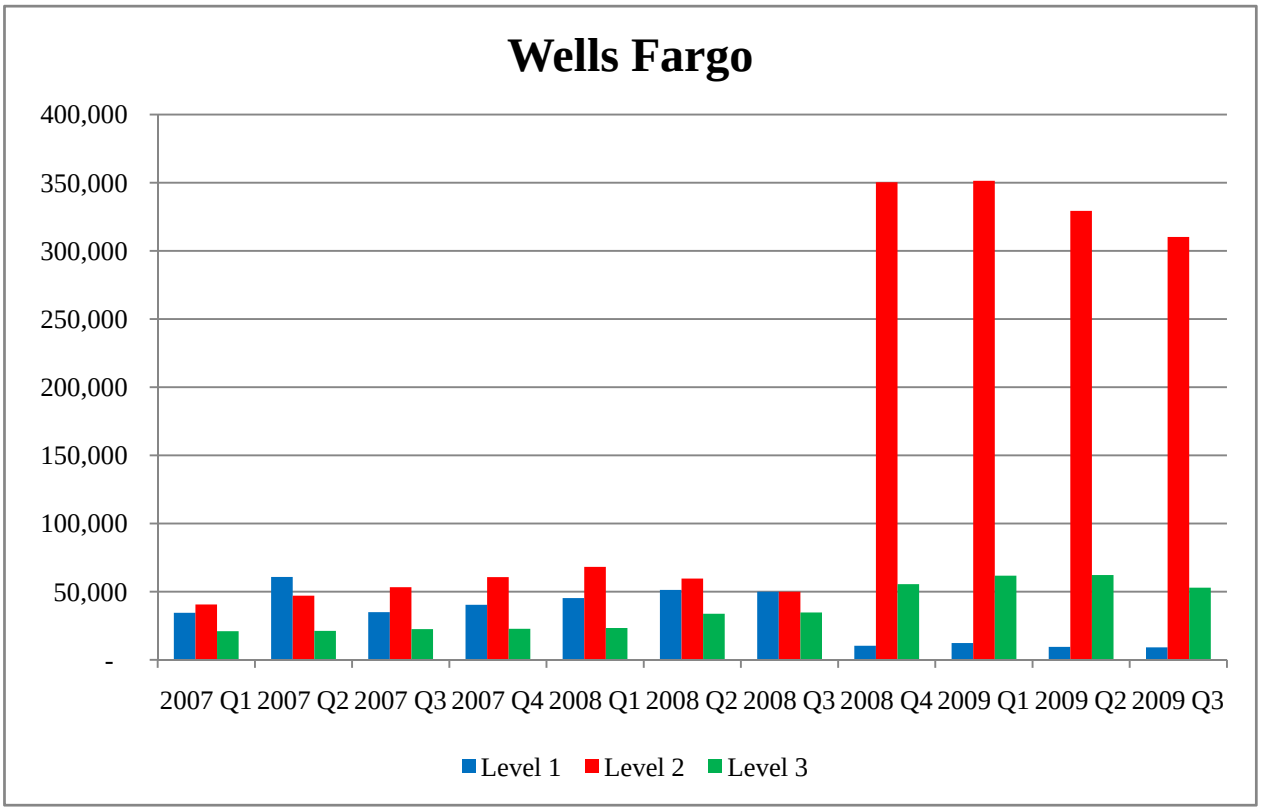
Graph 2A


Citigroup
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
2007 Q1
2007 Q2
2007 Q3
2007 Q4
2008 Q1
2008 Q2
2008 Q3
2008 Q4
2009 Q1
2009 Q2
2009 Q3
Level 1
Level 2
Level 3

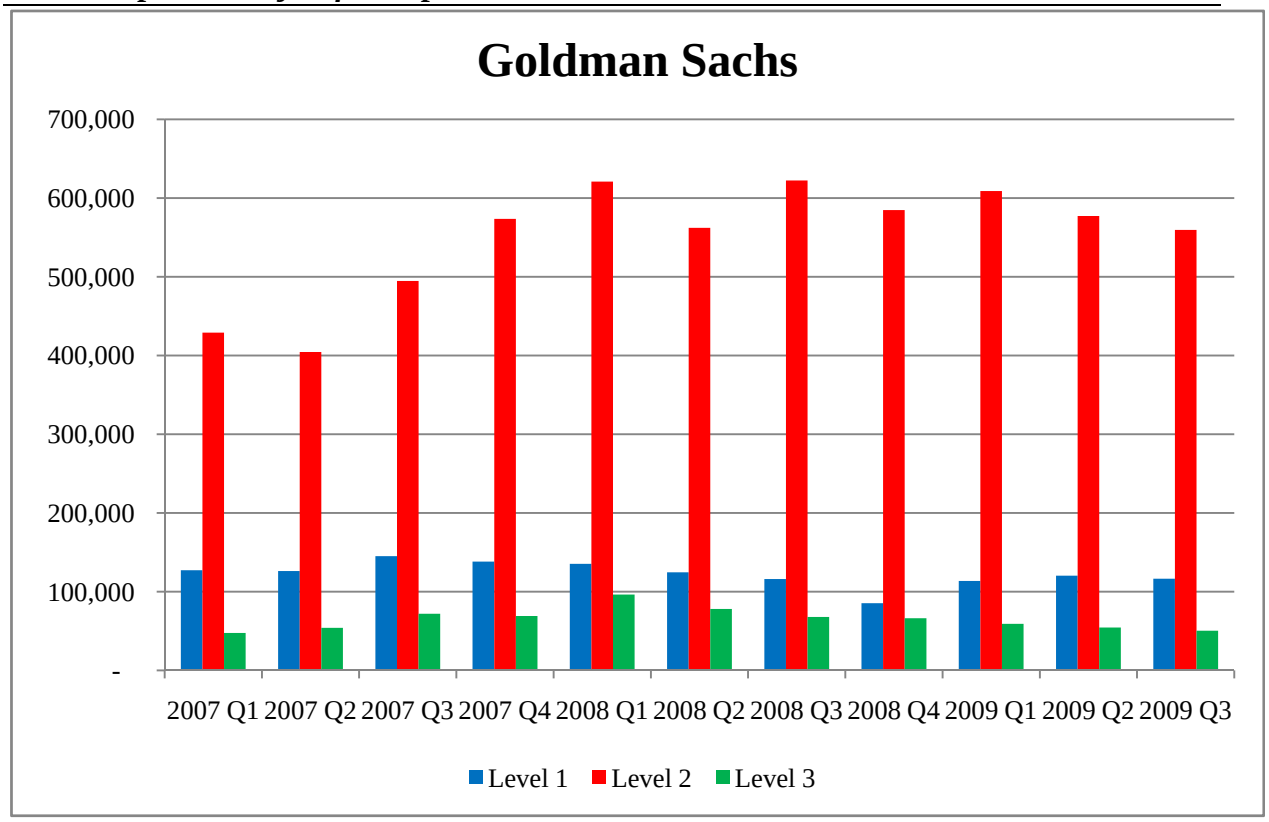
Graph 3A



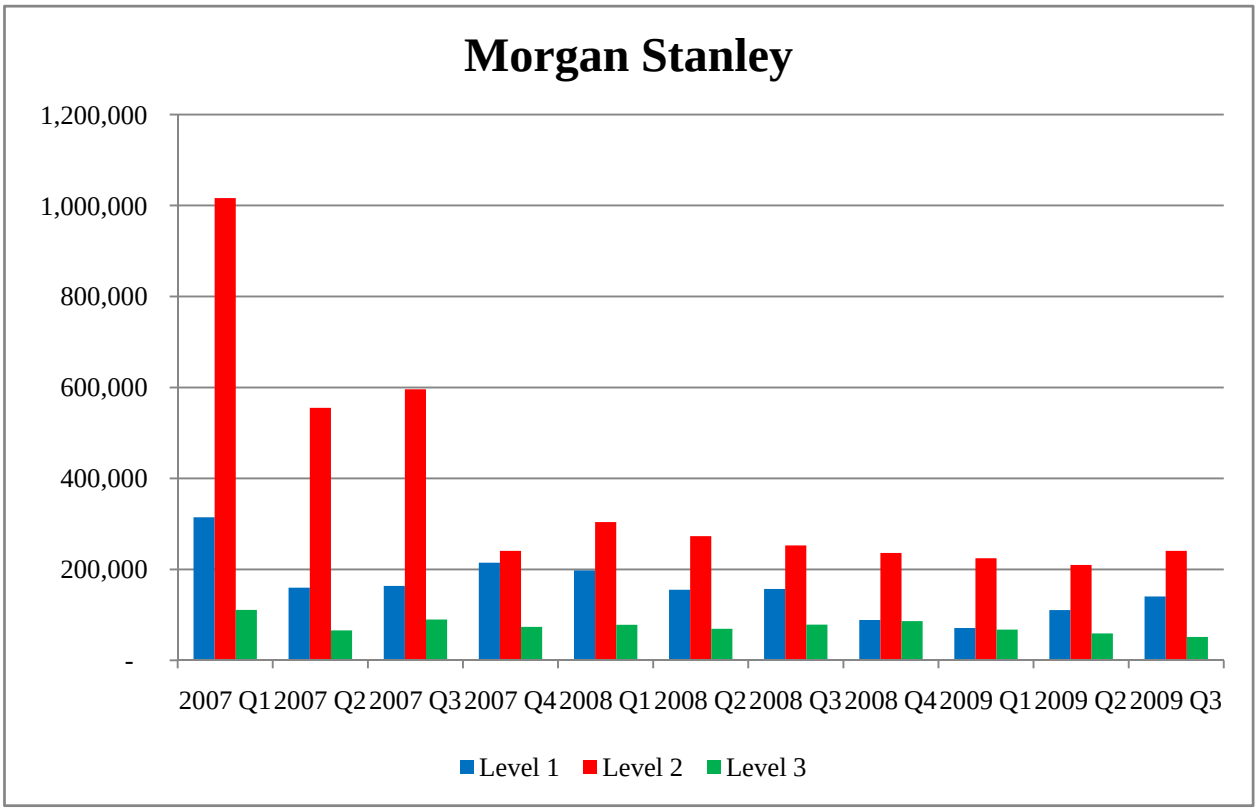
Graph 4A



Graph 5A



Graph 6A



Graph 7A

Appendix B

The following tables include all the data obtained through the research process for each of the sample companies.

Bank of America

Fiscal 2007 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 226,505	$ 385,825	$ 19,970	-	-	-
Q2	64,209	608,743	21,636	-71.65%	57.78%	8.34%
Q3	61,246	623,089	27,828	-4.61%	2.36%	28.62%
Q4	65,387	781,805	31,470	6.76%	25.47%	13.09%
Liabilities						
Q1	$ 60,943	$ 241,431	$ 7,048	-	-	-
Q2	55,574	306,548	9,268	-8.81%	26.97%	31.50%
Q3	63,491	319,988	10,080	14.25%	4.38%	8.76%
Q4	57,865	448,234	10,835	-8.86%	40.08%	7.49%

Fiscal 2008 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 76,384	$ 1,113,600	$ 39,730	16.82%	42.44%	26.25%
Q2	67,156	917,160	39,527	-12.08%	-17.64%	-0.51%
Q3	64,344	1,003,023	59,927	-4.19%	9.36%	51.61%
Q4	74,876	1,906,991	59,409	16.37%	90.12%	-0.86%
Liabilities						
Q1	$ 59,382	$ 775,241	$ 11,421	2.62%	72.95%	5.41%
Q2	52,750	540,628	9,675	-11.17%	-30.26%	-15.29%
Q3	54,251	604,968	9,213	2.85%	11.90%	-4.78%
Q4	47,884	1,504,539	7,959	-11.74%	148.70%	-13.61%

Fiscal 2009 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 116,017	$ 2,913,423	$ 126,938	54.95%	52.78%	113.67%
Q2	92,757	2,166,688	121,715	-20.05%	-25.63%	-4.11%
Q3	133,751	2,210,328	110,227	44.20%	2.01%	-9.44%
Liabilities						
Q1	$ 75,566	$ 2,527,727	$ 45,602	57.81%	68.01%	472.96%
Q2	49,030	1,799,559	33,022	-35.12%	-28.81%	-27.59%
Q3	73,310	1,862,633	27,361	49.52%	3.50%	-17.14%

Table 1B-1

Q1 2007		
	Amount (in millions)	% of total assets
Level 1	$ 226,505	35.82%
Level 2	385,825	61.02%
Level 3	19,970	3.16%

Q2 2007		
	Amount (in millions)	% of total assets
Level 1	$ 64,209	9.24%
Level 2	608,743	87.64%
Level 3	21,636	3.11%

Q3 2007		
	Amount (in millions)	% of total assets
Level 1	$ 61,246	8.60%
Level 2	623,089	87.49%
Level 3	27,828	3.91%

Q4 2007		
	Amount (in millions)	% of total assets
Level 1	$ 65,387.00	7.44%
Level 2	781,805	88.98%
Level 3	31,470	3.58%

Q1 2008		
	Amount (in millions)	% of total assets
Level 1	$ 76,384	6.21%
Level 2	1,113,600	90.56%
Level 3	39,730	3.23%

Q2 2008		
	Amount (in millions)	% of total assets
Level 1	$ 67,156	6.56%
Level 2	917,160	89.58%
Level 3	39,527	3.86%

Q3 2008		
	Amount (in millions)	% of total assets
Level 1	$ 64,344	5.71%
Level 2	1,003,023	88.98%
Level 3	59,927	5.32%

Q4 2008		
	Amount (in millions)	% of total assets
Level 1	$ 74,876	3.67%
Level 2	1,906,991	93.42%
Level 3	59,409	2.91%

Q1 2009		
	Amount (in millions)	% of total assets
Level 1	$ 116,017	3.68%
Level 2	2,913,423	92.30%
Level 3	126,938	4.02%

Q2 2009		
	Amount (in millions)	% of total assets
Level 1	$ 92,757	3.90%
Level 2	2,166,688	90.99%
Level 3	121,715	5.11%

Q3 2009		
	Amount (in millions)	% of total assets
Level 1	$ 133,751	5.45%
Level 2	2,210,328	90.06%
Level 3	110,227	4.49%

Table 1B-2

Citigroup

Fiscal 2007 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 284,513	$ 803,926	$ 67,136	-	-	-
Q2	328,374	843,171	95,320	15.42%	4.88%	41.98%
Q3	250,702	939,034	134,835	-23.65%	11.37%	41.46%
Q4	223,263	933,639	133,435	-10.94%	-0.57%	-1.04%
Liabilities						
Q1	$ 107,976	$ 581,375	$ 15,466	-	-	-
Q2	116,728	708,718	23,749	8.11%	21.90%	53.56%
Q3	97,350	793,280	40,355	-16.60%	11.93%	69.92%
Q4	77,530	781,988	54,353	-20.36%	-1.42%	34.69%

Fiscal 2008 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 183,801	$ 1,153,863	$ 160,345	-17.68%	23.59%	20.17%
Q2	168,138	1,080,186	154,656	-8.52%	-6.39%	-3.55%
Q3	154,170	1,036,294	157,641	-8.31%	-4.06%	1.93%
Q4	144,547	1,444,117	145,947	-6.24%	39.35%	-7.42%
Liabilities						
Q1	$ 74,566	$ 918,263	$ 102,928	-3.82%	17.43%	89.37%
Q2	68,580	836,943	84,859	-8.03%	-8.86%	-17.55%
Q3	62,042	837,492	76,822	-9.53%	0.07%	-9.47%
Q4	46,886	1,306,340	81,541	-24.43%	55.98%	6.14%

Fiscal 2009 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 134,599	$ 1,358,894	$ 123,643	-6.88%	-5.90%	-15.28%
Q2	136,641	1,174,526	112,710	1.52%	-13.57%	-8.84%
Q3	161,594	1,177,360	103,353	18.26%	0.24%	-8.30%
Liabilities						
Q1	$ 44,100	$ 1,186,030	$ 69,925	-5.94%	-9.21%	-14.25%
Q2	43,250	966,594	54,590	-1.93%	-18.50%	-21.93%
Q3	50,767	970,633	50,933	17.38%	0.42%	-6.70%

Table 2B-1

Q1 2007		
	Amount (in millions)	% of total assets
Level 1	$ 284,513	24.62%
Level 2	803,926	69.57%
Level 3	67,136	5.81%

Q2 2007		
	Amount (in millions)	% of total assets
Level 1	$ 328,374	25.92%
Level 2	843,171	66.56%
Level 3	95,320	7.52%

Q3 2007		
	Amount (in millions)	% of total assets
Level 1	$ 250,702	18.93%
Level 2	939,034	70.89%
Level 3	134,835	10.18%

Q4 2007		
	Amount (in millions)	% of total assets
Level 1	$ 223,263.00	17.30%
Level 2	933,639	72.36%
Level 3	133,435	10.34%

Q1 2008		
	Amount (in millions)	% of total assets
Level 1	$ 183,801	12.27%
Level 2	1,153,863	77.03%
Level 3	160,345	10.70%

Q2 2008		
	Amount (in millions)	% of total assets
Level 1	$ 168,138	11.98%
Level 2	1,080,186	76.99%
Level 3	154,656	11.02%

Q3 2008		
	Amount (in millions)	% of total assets
Level 1	$ 154,170	11.44%
Level 2	1,036,294	76.87%
Level 3	157,641	11.69%

Q4 2008		
	Amount (in millions)	% of total assets
Level 1	$ 144,547	8.33%
Level 2	1,444,117	83.25%
Level 3	145,947	8.41%

Q1 2009		
	Amount (in millions)	% of total assets
Level 1	$ 134,599	8.32%
Level 2	1,358,894	84.03%
Level 3	123,643	7.65%

Q2 2009		
	Amount (in millions)	% of total assets
Level 1	$ 136,641	9.60%
Level 2	1,174,526	82.49%
Level 3	112,710	7.92%

Q3 2009		
	Amount (in millions)	% of total assets
Level 1	$ 161,594	11.20%
Level 2	1,177,360	81.63%
Level 3	103,353	7.17%

Table 2B-2

JP Morgan Chase

Fiscal 2007 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 294,637	$ 793,838	$ 32,082	-	-	-
Q2	303,288	915,581	38,459	2.94%	15.34%	19.88%
Q3	306,966	926,649	53,875	1.21%	1.21%	40.08%
Q4	303,850	1,093,059	71,290	-1.02%	17.96%	32.32%
Liabilities						
Q1	$ 81,006	$ 670,142	$ 22,993	-	-	-
Q2	81,192	792,503	31,336	0.23%	18.26%	36.28%
Q3	78,484	807,458	39,825	-3.34%	1.89%	27.09%
Q4	92,576	940,822	43,346	17.96%	16.52%	8.84%

Fiscal 2008 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 261,124	$ 1,569,872	$ 89,290	-14.06%	43.62%	25.25%
Q2	280,356	1,565,035	137,154	7.37%	-0.31%	53.61%
Q3	298,898	1,579,206	140,812	6.61%	0.91%	2.67%
Q4	301,333	2,933,921	130,256	0.81%	85.78%	-7.50%
Liabilities						
Q1	$ 62,267	$ 1,407,842	$ 42,159	-32.74%	49.64%	-2.74%
Q2	77,233	1,387,213	73,759	24.04%	-1.47%	74.95%
Q3	60,693	1,391,991	60,667	-21.42%	0.34%	-17.75%
Q4	38,198	2,698,165	61,656	-37.06%	93.83%	1.63%

Fiscal 2009 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 334,578	$ 2,699,361	$ 144,813	11.03%	-7.99%	11.18%
Q2	344,226	2,031,521	137,713	2.88%	-24.74%	-4.90%
Q3	365,700	2,083,840	127,539	6.24%	2.58%	-7.39%
Liabilities						
Q1	$ 44,886	$ 2,422,101	$ 68,607	17.51%	-10.23%	11.27%
Q2	46,926	1,777,741	59,332	4.54%	-26.60%	-13.52%
Q3	55,661	1,787,187	57,733	18.61%	0.53%	-2.70%

Table 3B-1

Q1 2007		
	Amount (in millions)	% of total assets
Level 1	$ 294,637	26.29%
Level 2	793,838	70.84%
Level 3	32,082	2.86%

Q2 2007		
	Amount (in millions)	% of total assets
Level 1	$ 303,288	24.12%
Level 2	915,581	72.82%
Level 3	38,459	3.06%

Q3 2007		
	Amount (in millions)	% of total assets
Level 1	$ 306,966	23.84%
Level 2	926,649	71.97%
Level 3	53,875	4.18%

Q4 2007		
	Amount (in millions)	% of total assets
Level 1	$ 303,850.00	20.70%
Level 2	1,093,059	74.45%
Level 3	71,290	4.86%

Q1 2008		
	Amount (in millions)	% of total assets
Level 1	$ 261,124	13.60%
Level 2	1,569,872	81.75%
Level 3	89,290	4.65%

Q2 2008		
	Amount (in millions)	% of total assets
Level 1	$ 280,356	14.14%
Level 2	1,565,035	78.94%
Level 3	137,154	6.92%

Q3 2008		
	Amount (in millions)	% of total assets
Level 1	$ 298,898	14.80%
Level 2	1,579,206	78.22%
Level 3	140,812	6.97%

Q4 2008		
	Amount (in millions)	% of total assets
Level 1	$ 301,333	8.95%
Level 2	2,933,921	87.18%
Level 3	130,256	3.87%

Q1 2009		
	Amount (in millions)	% of total assets
Level 1	$ 334,578	10.53%
Level 2	2,699,361	84.92%
Level 3	144,813	4.56%

Q2 2009		
	Amount (in millions)	% of total assets
Level 1	$ 344,226	13.70%
Level 2	2,031,521	80.83%
Level 3	137,713	5.48%

Q3 2009		
	Amount (in millions)	% of total assets
Level 1	$ 365,700	14.19%
Level 2	2,083,840	80.86%
Level 3	127,539	4.95%

Table 3B-2

Wells Fargo

Fiscal 2007 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 34,454	$ 40,572	$ 20,951	-	-	-
Q2	60,756	47,102	21,249	76.34%	16.09%	1.42%
Q3	34,928	53,239	22,568	-42.51%	13.03%	6.21%
Q4	40,364	60,719	22,749	15.56%	14.05%	0.80%
Liabilities						
Q1	$ 1,285	$ 1,460	$ 311	-	-	-
Q2	2,470	2,091	392	92.22%	43.22%	26.05%
Q3	1,936	822	321	-21.62%	-60.69%	-18.11%
Q4	1,670	606	315	-13.74%	-26.28%	-1.87%

Fiscal 2008 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 45,262	$ 68,158	$ 23,310	12.13%	12.25%	2.47%
Q2	51,286	59,637	33,799	13.31%	-12.50%	45.00%
Q3	49,977	49,964	34,771	-2.55%	-16.22%	2.88%
Q4	10,380	350,299	55,557	-79.23%	601.10%	59.78%
Liabilities						
Q1	$ 3,597	$ 2,230	$ 408	115.39%	267.99%	29.52%
Q2	4,107	2,414	443	14.18%	8.25%	8.58%
Q3	7,455	2,762	550	81.52%	14.42%	24.15%
Q4	4,815	187,098	9,308	-35.41%	6674.00%	1592.36%

Fiscal 2009 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 12,333	$ 351,350	$ 61,693	18.82%	0.30%	11.04%
Q2	9,515	329,334	62,207	-22.85%	-6.27%	0.83%
Q3	9,155	310,174	52,955	-3.78%	-5.82%	-14.87%
Liabilities						
Q1	$ 6,313	$ 157,898	$ 8,567	31.11%	-15.61%	-7.96%
Q2	8,693	100,834	8,747	37.70%	-36.14%	2.10%
Q3	7,064	103,755	7,855	-18.74%	2.90%	-10.20%

Table 4B-1

Q1 2007		
	Amount (in millions)	% of total assets
Level 1	$ 34,454	35.90%
Level 2	40,572	42.27%
Level 3	20,951	21.83%

Q2 2007		
	Amount (in millions)	% of total assets
Level 1	$ 60,756	47.06%
Level 2	47,102	36.48%
Level 3	21,249	16.46%

Q3 2007		
	Amount (in millions)	% of total assets
Level 1	$ 34,928	31.54%
Level 2	53,239	48.08%
Level 3	22,568	20.38%

Q4 2007		
	Amount (in millions)	% of total assets
Level 1	$ 40,364.00	32.60%
Level 2	60,719	49.03%
Level 3	22,749	18.37%

Q1 2008		
	Amount (in millions)	% of total assets
Level 1	$ 45,262	33.10%
Level 2	68,158	49.85%
Level 3	23,310	17.05%

Q2 2008		
	Amount (in millions)	% of total assets
Level 1	$ 51,286	35.44%
Level 2	59,637	41.21%
Level 3	33,799	23.35%

Q3 2008		
	Amount (in millions)	% of total assets
Level 1	$ 49,977	37.10%
Level 2	49,964	37.09%
Level 3	34,771	25.81%

Q4 2008		
	Amount (in millions)	% of total assets
Level 1	$ 10,380	2.49%
Level 2	350,299	84.16%
Level 3	55,557	13.35%

Q1 2009		
	Amount (in millions)	% of total assets
Level 1	$ 12,333	2.90%
Level 2	351,350	82.60%
Level 3	61,693	14.50%

Q2 2009		
	Amount (in millions)	% of total assets
Level 1	$ 9,515	2.37%
Level 2	329,334	82.12%
Level 3	62,207	15.51%

Q3 2009		
	Amount (in millions)	% of total assets
Level 1	$ 9,155	2.46%
Level 2	310,174	83.32%
Level 3	52,955	14.22%

Table 4B-2

Goldman Sachs

Fiscal 2007 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 127,186	$ 429,067	$ 47,633	-	-	-
Q2	126,255	404,507	54,101	-0.73%	-5.72%	13.58%
Q3	145,175	494,635	72,048	14.99%	22.28%	33.17%
Q4	138,209	573,634	69,151	-4.80%	15.97%	-4.02%
Liabilities						
Q1	$ 91,072	$ 343,094	$ 12,025	-	-	-
Q2	96,979	316,999	15,420	6.49%	-7.61%	28.23%
Q3	98,890	363,606	22,076	1.97%	14.70%	43.16%
Q4	102,002	388,987	19,236	3.15%	6.98%	-12.86%

Fiscal 2008 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 135,426	$ 620,986	$ 96,386	-2.01%	8.25%	39.38%
Q2	124,507	562,190	78,088	-8.06%	-9.47%	-18.98%
Q3	115,964	622,376	67,868	-6.86%	10.71%	-13.09%
Q4	85,410	584,857	66,190	-26.35%	-6.03%	-2.47%
Liabilities						
Q1	$ 97,783	$ 408,881	$ 21,682	-4.14%	5.11%	12.72%
Q2	71,364	341,931	19,209	-27.02%	-16.37%	-11.41%
Q3	71,788	320,883	21,681	0.59%	-6.16%	12.87%
Q4	48,347	280,537	21,886	-32.65%	-12.57%	0.95%

Fiscal 2009 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 113,686	$ 608,992	$ 59,062	33.11%	4.13%	-10.77%
Q2	120,413	577,210	54,444	5.92%	-5.22%	-7.82%
Q3	116,404	559,502	50,466	-3.33%	-3.07%	-7.31%
Liabilities						
Q1	$ 47,423	$ 312,923	$ 27,412	-1.91%	11.54%	25.25%
Q2	68,712	275,420	28,327	44.89%	-11.98%	3.34%
Q3	73,632	265,993	24,440	7.16%	-3.42%	-13.72%

Table 5B-1

Q1 2007		
	Amount (in millions)	% of total assets
Level 1	$ 127,186	21.06%
Level 2	429,067	71.05%
Level 3	47,633	7.89%

Q2 2007		
	Amount (in millions)	% of total assets
Level 1	$ 126,255	21.59%
Level 2	404,507	69.16%
Level 3	54,101	9.25%

Q3 2007		
	Amount (in millions)	% of total assets
Level 1	$ 145,175	20.39%
Level 2	494,635	69.49%
Level 3	72,048	10.12%

Q4 2007		
	Amount (in millions)	% of total assets
Level 1	$ 138,209.00	17.70%
Level 2	573,634	73.45%
Level 3	69,151	8.85%

Q1 2008		
	Amount (in millions)	% of total assets
Level 1	$ 135,426	15.88%
Level 2	620,986	72.82%
Level 3	96,386	11.30%

Q2 2008		
	Amount (in millions)	% of total assets
Level 1	$ 124,507	16.28%
Level 2	562,190	73.51%
Level 3	78,088	10.21%

Q3 2008		
	Amount (in millions)	% of total assets
Level 1	$ 115,964	14.38%
Level 2	622,376	77.20%
Level 3	67,868	8.42%

Q4 2008		
	Amount (in millions)	% of total assets
Level 1	$ 85,410	11.60%
Level 2	584,857	79.41%
Level 3	66,190	8.99%

Q1 2009		
	Amount (in millions)	% of total assets
Level 1	$ 113,686	14.54%
Level 2	608,992	77.90%
Level 3	59,062	7.56%

Q2 2009		
	Amount (in millions)	% of total assets
Level 1	$ 120,413	16.01%
Level 2	577,210	76.75%
Level 3	54,444	7.24%

Q3 2009		
	Amount (in millions)	% of total assets
Level 1	$ 116,404	16.03%
Level 2	559,502	77.03%
Level 3	50,466	6.95%

Table 5B-2

Morgan Stanley

Fiscal 2007 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 314,394	$ 1,016,518	$ 110,710	-	-	-
Q2	159,875	555,193	65,749	-49.15%	-45.38%	-40.61%
Q3	163,679	595,802	89,850	2.38%	7.31%	36.66%
Q4	214,551	240,542	73,659	31.08%	-59.63%	-18.02%
Liabilities						
Q1	$ 210,560	$ 771,050	$ 30,664	-	-	-
Q2	101,111	456,896	24,392	-51.98%	-40.74%	-20.45%
Q3	101,397	519,077	30,951	0.28%	13.61%	26.89%
Q4	122,867	185,235	19,527	21.17%	-64.31%	-36.91%

Fiscal 2008 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 197,562	$ 304,052	$ 78,168	-7.92%	26.40%	6.12%
Q2	155,153	272,848	69,198	-21.47%	-10.26%	-11.48%
Q3	156,753	252,710	78,377	1.03%	-7.38%	13.26%
Q4	88,704	236,125	86,172	-43.41%	-6.56%	9.95%
Liabilities						
Q1	$ 110,707	$ 210,888	$ 24,818	-9.90%	13.85%	27.10%
Q2	91,857	199,955	21,273	-17.03%	-5.18%	-14.28%
Q3	83,237	186,132	26,186	-9.38%	-6.91%	23.10%
Q4	40,961	164,444	28,371	-50.79%	-11.65%	8.34%

Fiscal 2009 Fair Value Classifications						
(dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**% change (Level 1)**	**% change (Level 2)**	**% change (Level 3)**
Assets						
Q1	$ 71,233	$ 224,535	$ 67,415	-19.70%	-4.91%	-21.77%
Q2	110,574	209,759	59,013	55.23%	-6.58%	-12.46%
Q3	140,467	240,747	51,523	27.03%	14.77%	-12.69%
Liabilities						
Q1	$ 47,797	$ 143,807	$ 21,407	16.69%	-12.55%	-24.55%
Q2	71,330	127,620	18,104	49.24%	-11.26%	-15.43%
Q3	87,115	128,801	18,781	22.13%	0.93%	3.74%

Table 6B-1

Q1 2007	Amount (in millions)	% of total assets
Level 1	$ 314,394	21.81%
Level 2	1,016,518	70.51%
Level 3	110,710	7.68%

Q2 2007	Amount (in millions)	% of total assets
Level 1	$ 159,875	20.48%
Level 2	555,193	71.10%
Level 3	65,749	8.42%

Q3 2007	Amount (in millions)	% of total assets
Level 1	$ 163,679	19.27%
Level 2	595,802	70.15%
Level 3	89,850	10.58%

Q4 2007	Amount (in millions)	% of total assets
Level 1	$ 214,551.00	40.58%
Level 2	240,542	45.49%
Level 3	73,659	13.93%

Q1 2008	Amount (in millions)	% of total assets
Level 1	$ 197,562	34.08%
Level 2	304,052	52.44%
Level 3	78,168	13.48%

Q2 2008	Amount (in millions)	% of total assets
Level 1	$ 155,153	31.21%
Level 2	272,848	54.88%
Level 3	69,198	13.92%

Q3 2008	Amount (in millions)	% of total assets
Level 1	$ 156,753	32.13%
Level 2	252,710	51.80%
Level 3	78,377	16.07%

Q4 2008	Amount (in millions)	% of total assets
Level 1	$ 88,704	21.58%
Level 2	236,125	57.45%
Level 3	86,172	20.97%

Q1 2009	Amount (in millions)	% of total assets
Level 1	$ 71,233	19.61%
Level 2	224,535	61.82%
Level 3	67,415	18.56%

Q2 2009	Amount (in millions)	% of total assets
Level 1	$ 110,574	29.15%
Level 2	209,759	55.29%
Level 3	59,013	15.56%

Q3 2009	Amount (in millions)	% of total assets
Level 1	$ 140,467	32.46%
Level 2	240,747	55.63%
Level 3	51,523	11.91%

Table 6B-2

REFERENCES

Bank of America. Forms 10-Q/10-K for Quarter 1, 2007 through Quarter 3, 2009.

Bhamornsiri, Sak, Robert E. Guinn, and Richard G. Schroeder. 2009. The Economic Impact of SFAS NO. 157. Spring Science & Business Media B.V.

Cheng, Kang. 2009. Fair Value's 'How' Meets 'When'. *The CPA Journal* 79 (8):26-29.

Citigroup. Forms 10-Q/10-K for Quarter 1, 2007 through Quarter 3, 2009.

Federal Reserve Bank of St. Louis. 2010. *The Financial Crisis Timeline* 2010 [cited March 17 2010]. Available from http://timeline.stlouisfed.org/index.cfm?p=timeline.

Financial Accounting Standards Board. 2006. Fair Value Measurements. Norwalk, CT: FASB.

———. 2008. Application of FASB Statement No. 157 to FASB Statement No. 13 and Other Accounting Pronouncements That Address Fair Value Measurements for Purposes of Lease Classification or Measurement under Statement 13. In *FSP FAS 157-1*. Norwalk, CT: FASB.

———. 2008. Determining the Fair Value of a Financial Asset When the Market for That AssetIs Not Active. In *FSP FAS 157-3*. Norwalk, CT: FASB.

———. 2008. Effective Date of FASB Statement No. 157. In *FSP FAS 157-2*. Norwalk, CT: FASB.

———. 2009. Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly. In *FSP FAS 157-4*. Norwalk, CT: FASB.

———. 2009. FASB Initiates Projects to Improve Measurement and Disclosure of Fair Value Estimates.

Gaynor II, David, and Steven A. Schumacher. 2007. Early Adopters of FAS 157 Can Reap Financial Advantages. *Executive Counsel* 4 (1).

Goldman Sachs. Forms 10-Q/10-K for Quarter 1, 2007 through Quarter 3, 2009.

Isaac, William M. 2009. How to Save the Financial System. *Wall Street Journal*, A.23.

JP Morgan Chase & Co. Forms 10-Q/10-K for Quarter 1, 2007 through Quarter 3, 2009.

King, Alfred M. 2008. Be careful what you ask for: Is fair value accounting really fair? *International Journal of Disclosure and Governance* 5 (4):301-311.

———. 2009. Determining Fair Value. *Strategic Finance* 90 (7):27-32.

Levitt Jr., Arthur, and Lynn Turner. 2008. How to Restore Trust in Wall Street. *Wall Street Journal*, A.17.

Morgan Stanley. Forms 10-Q/10-K for Quarter 1, 2007 through Quarter 3, 2009.

Sanders, Thomas B. 2009. SFAS No. 157. *Strategic Finance*:50-53.

Standard & Poor's. 2010. *Index Earnings* 2010 [cited January 8 2010]. Available from http://www.standardandpoors.com/indices/sp-500/en/us/?indexId=spusa-500-usduf--p-us-l--.

Trussel, John M., and Laura C. Rose. 2009. Fair Value Accounting and the Current Financial Crisis. *The CPA Journal* 79 (6):26.

United States Congress. 2008. *The emergency economic stabilization act of 2008*. Poughkeepsie, NY: Vivisphere Pub.

Wells Fargo. Forms 10-Q/10-K for Quarter 1, 2007 through Quarter 3, 2009.