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## Fair value accounting debate and the future of the profession

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THE FAIR VALUE ACCOUNTING DEBATE  
AND THE FUTURE OF THE PROFESSION

A Thesis Submitted  
in Partial Fulfillment  
of the Requirements for the Designation  
University Honors

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Entitled: The Fair Value Accounting Debate and the Future of the Profession

has been approved as meeting the thesis or project requirement for the  
University Honors

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## Introduction

In 2006 and 2007, new accounting statements were issued that expanded fair value accounting, which have led to a debate that extends beyond the accounting profession to the rest of the business community. While fair value accounting is not a new concept or accounting practice, the new requirements related to the statements, combined with the recent credit crisis that started in 2007, have caused many companies and users of the financial statements to argue whether or not current fair value accounting practices should be continued.

It is important that a resolution for this disagreement is chosen and implemented soon because many companies that use fair value accounting have to write down a considerable number of their assets and liabilities as the market collapses, causing those companies' financial statements to appear much worse than they actually may be. The purpose of the financial statements is to illustrate the financial condition and activities of a company during the fiscal year and allow users of the financial statements to predict future cash flows of the company. When the market collapses and write downs in the value of assets and liabilities cause the financial statements to misrepresent the financial situation of the company, the financial statements are unable to fulfill their intended purpose. Fair value accounting affects primarily the balance sheet of a company, as well as the company's income statement to a lesser degree. As a result, one of the primary questions that must be addressed is whether or not fair value accounting makes the balance sheet better by helping people estimate the future cash flows of the company.

It is crucial to understand how fair value accounting is currently affecting companies. In addition, in order to make the transition from historical cost to fair value accounting as effective and efficient as possible, it is important to have a good idea about how further implementation of

fair value accounting will likely progress. By understanding this, avoiding large problems, like those that occurred as a result of the recent credit crisis, may be possible.

The purpose of this thesis paper is to decide if fair value accounting is a good accounting practice to use based on the current needs of companies and financial statement users as well as current business factors. This is accomplished by exploring what fair value accounting is, its effects on businesses and the economy, how it is currently applied, and its weaknesses and strengths. This paper first defines and explains current fair value accounting practices. Then, the debate over fair value accounting is discussed. An examination of financial statements of 50 Fortune 500 companies follows to look at how fair value accounting has affected the financials of some of the biggest companies in the United States. This research provides the basis for a recommendation of whether or not fair value accounting is the best option to meet current economic and business needs of companies implementing it and the needs of the financial statement users. Another recommendation based on the research is whether or not continued expansion is appropriate. In addition, this research highlights what future research and adjustments to fair value accounting are still necessary.

### **Asset and Liability Valuation Methods**

The assets and liabilities of a company can be valued on the company's balance sheet using three different accounting measurements: historical cost, present value, or market value. It is important to understand the different measurements used to value assets and liabilities to fully understand what fair value accounting is and how it is different from the alternatives. Each of the accounting measurements has advantages and disadvantages. The Generally Accepted Accounting Principles (GAAP) in the United States requires the application of different measurements depending on the type of asset or liability being measured.



## Historical Cost

Historical cost is the “default” measurement under US GAAP. The historical cost of an item is the actual cost paid for the item (Historical Cost Accounting, 2009). The historical cost used can be the pure historical cost, which is the cost of the item ignoring inflation rates, or the historical cost adjusted for changes in price levels (Jensen, 2007). Each type of historical cost has advantages and disadvantages.

**Pure historical cost.** The advantages of using pure historical cost to measure assets are that it has been used for a long time, is the primary basis for accounting in many nations, and satisfies the matching concept of accounting because it matches the costs of the resources used in production with the revenues generated from the production. In addition, using pure historical cost allows the valuation measurements shown on the balance sheet to be traced to real transactions, which helps create an audit trail. The earnings from the pure historical costs can assist in the prediction of future historical cost earnings. Also, pure historical cost is more accurate, more uniform, more consistent, and less prone to measurement error than the other accounting measurements because it is based on real transaction amounts.

Using pure historical cost has its disadvantages as well. Pure historical cost valuation has led to companies creating contracts, within the confinements of GAAP, designed specifically to avoid including certain items on the balance sheet. This practice is known as off-balance sheet accounting. An example of this is when companies create derivative contracts that do not cost the company anything when the derivatives are established but can be worth millions of dollars. Under pure historical cost accounting, those derivatives are left off of the balance sheets because there is no historical cost to record, even though they have a significant impact on the company’s financial position. While it is not against the rules, off-balance sheet accounting makes the

financial statements, specifically the balance sheet, less representative of the realities of the company's financial position than they should be. Also, it is not useful in economies of high inflation because the cost of an asset will not match the revenues generated from that asset. This lack of matching is caused by the purchasing power of the dollar over time changing dramatically because of high inflation rates. In addition, the use of pure historical cost assumes the company is a going concern, which means that the company is assumed to continue to exist forever. This is a disadvantage because if the company is no longer a going concern, the asset of the company must be measured at liquidation values and the balance sheet values must be changed to reflect the new measurements. This transition can be confusing for investors because the company's assets may look better or worse depending on the current situation. Another disadvantage of using pure historical cost is that, while it is thought to be objective, there are many underlying subjective estimates that factor into the measurement, such as the asset's useful life and allocations of indirect costs (Jensen, 2007).

**Price-level adjusted historical cost.** Price-level adjusted historical cost is the measurement of an asset based on the item's historical cost, which is then adjusted for change in the general price level. There are advantages to using price-level adjusted historical cost to measure assets. These include converting costs to a common purchasing power unit of measurement to allow for better comparison of the purchasing power invested in each asset, having a dramatic positive impact on the return on investment (ROI) calculation for the company, and being very useful in periods of hyperinflation. When adjusting the historical cost to the general price level, the government-generated consumer price index (CPI) can be used. Government-generated CPIs are readily available and are reasonably accurate. The disadvantages are that there is no general agreement of best inflation index to use and there is no

common index across nations, which makes it difficult to compare companies in different nations. Also, using price-level adjusted historical cost is not as good of a predictor of earnings as pure historical cost (Jensen, 2007).

### **Present Value of Future Cash Flows**

In addition to historical cost, measuring assets and liabilities can be done using the present value of future cash flows. The future cash inflows and outflows related to an asset or liability are discounted to today's dollars using a determined discount rate to come up with the present value of the asset or liability. This means that the cash expected to be coming into the company and going out of the company because of the asset or liability is stated in the equivalent dollar amount in today's dollars. Current US GAAP requires present value to be used to measure certain assets and liabilities, such as pension liabilities, instead of historical cost. The situations that require the use of present value accounting occur when the future cash inflows and outflows can be reliably estimated and are attributable to the asset or liability being measured based on discounted cash flows.

There are advantages and disadvantages to valuing assets and liabilities at present value. One advantage is that the present value is based on the management's intended use of the item being valued. Another advantage is that the economic value of the asset or liability "conforms to the economic theory of the firm" (Jensen, 2007, p. 306). The disadvantage of using present value to measure assets and liabilities include difficulties allocating the cash flows of a system to the individual assets that make up the system and difficulties estimating cash flows. It can also be hard to decide on an appropriate discount rate to use to discount the cash flows. In addition, the underlying assumptions related to economic valuations can be problematic (Jensen, 2007).

### **Market Value**

The market value of assets and liabilities can also be used for balance sheet measurement. This valuation is based on hypothetical transactions that would occur in the market as of the date of the balance sheet. Market value for an asset or liability can either be the entry value or the exit value of the item.

**Entry value.** Entry value is also called the current cost or replacement value. This is “a buyer’s acquisition cost (net of discounts) plus transaction fees and installation expenses” (Jensen, 2007, p. 302). This means that the value of an item is the amount it would cost to purchase that item in the current market plus any additional costs necessary to prepare the item for use.

The advantages to using the entry value of an asset or liability are matching current revenues to what the current costs would be of generating that revenue as well as avoiding the problems of finding an index when using price-level adjusted historical cost, as long as an accurate replacement cost is known and can be matched with the current selling prices.

There are some disadvantages to using entry value to measure assets and liabilities. One disadvantage is that the discovery of an accurate replacement cost is nearly impossible when the technology is rapidly changing and there are newer production alternatives available. Another disadvantage of entry value measurements is that it is very costly to a firm to use if they must find the current replacement costs for thousands or millions of items. In addition, because the quality of a certain type of item may change drastically over time, such as with vehicles and computers, finding an accurate replacement cost can be difficult. An example of this problem is finding a replacement cost for a ten-year-old truck because the optional features, useful lives, and pricing options of trucks have changed a great deal over the past decade. If replacement cost cannot be easily determined, a company may try to use a “sector” price index, such as a

transportation price index, to adjust the assets value to a comparable current value. This creates the same problem as using a general price index in the price-level adjusted historical cost measurement, in that the indices used may not be readily available and different ones can be chosen, making it difficult to compare companies' balance sheets. Another disadvantage of using entry cost to value an asset or liability is that the gains or losses not yet realized may be recognized on the company's financial statements as the current cost changes (Jensen, 2007).

**Exit value.** The other market value that can be used to measure assets and liabilities is the exit value, also known as the liquidation or fair value of the asset or liability. This is the value used in fair value accounting. The exit value of an item can be defined as "the seller's liquidation value (net of disposal transaction costs)" (Jensen, 2007, p. 304). This means that the exit value of an item is the value of disposing of or selling the item. The use of exit value for measuring assets and liabilities is required by US GAAP for personal financial statements and for companies that are considered likely to become a non-going concern. An exit value of an item can be negative if the disposal is very costly or involves clean-up costs.

One advantage of using exit value for valuation is that some assets and liabilities that do not have a historical cost, such as forward contracts, but are worth millions of dollars, are measurable and included on the balance sheet. Another advantage is that arbitrary cost allocation decisions, such as inventory valuation method and depreciation rates, are not required. In addition, computing exit value can be easier than computing entry values for many items. An example of an asset that it is easier to compute exit value for rather than replacement cost (entry value) is a computer from the 1980s. It is easier to figure out the amount of money a company can sell that computer for than it is to figure out how much it would cost to buy a replacement

computer with the same capabilities and equivalent computing power, since computers are very different now compared to the computers from the 1980s.

There are many disadvantages to using the exit value. The seller's liquidation value of an asset or liability may differ greatly from the useful value depending on if the company is a going concern or not. Another disadvantage is that operating assets are purchased to be used in the operations of the company, not with the intentions of selling the asset; and exit value bases the value of the assets on the selling price. This can lead to fluctuations in the earnings of a company that are misleading because if the assets are not being considered for sale, it is not important to the company's financial position and condition what the disposal value of the assets is. Another disadvantage of using exit value is that some assets, such as software and databases, cost millions of dollars to develop but may not have any exit value if sold separately from the company because no market exists for those assets without the company the assets were specifically developed for. These assets would not have any value on the balance sheet, even though they do add value to the company for a long period of time. In addition, using exit values may lead to recording anticipated profits well in advance of actual transactions occurring if inventory is created but buyers do not yet exist for the inventory. An example of this is the valuation of houses built by a homebuilding company. The houses (the inventory of the company) would be valued under the exit value as the houses' selling value but no buyers may exist for those homes yet, so no profit actually would be realized on the homes yet. The cost of appraising assets and liabilities for each accounting report date is very expensive and can be highly subjective, which is another disadvantage of measuring items at exit value. Additionally, selling now or later could impact the liquidation value of an item because more money will be received by the seller if they wait to sell the item until the right buyer comes along versus if they

sell it at any random time. Another disadvantage is that the value of a contracted item, such as a held-to-maturity security, may change over time but the payments received or paid related to the item remain the same as dictated by the contract, which causes the resulting fluctuations in the value of the assets to be misleading (Jensen, 2007).

Historical cost, present value, and market value measurements all play important roles in the US accounting requirements. Each has advantages and disadvantages which influence how and when the different measurements are used to value assets and liabilities. Because the measurements have positives and negatives associated with their use and application, there have been debates over the application of the different measurements in US GAAP requirements. These debates begin when there is a proposed change in the requirements of asset and liability measurement under US GAAP and often continue well after the requirements are put into effect. The most recent debate, which is still going on, is about measuring certain assets and liabilities at fair value.

### **Fair Value Accounting Definition and History**

Fair value accounting has been around and applied under US GAAP for a long time but recent standards issued by the Financial Accounting Standards Board (FASB) have changed the definition of fair value, what it must be applied to, and when it should be used. Fair value accounting is also called mark-to-market accounting. This is an accurate description because the assets and liabilities are valued on the financial statements based on the prices and information available in the market for the asset or liability or a similar market. Fair value is used to reflect “current market participant assumptions about the future inflows associated with an asset (future economic benefits) and the future outflows associated with a liability (future sacrifices of economic benefits)” (Financial Accounting Standards Board [FASB], 2006a, p. 3). This means

that fair value is used to understand the future benefits of an asset or the future costs or loss of benefits due to a liability. Before the FASB issued the Statement of Financial Accounting Standards (SFAS) No. 157, which is now known as Accounting Standards Codification (ASC) 820 under the new FASB codification, there was confusion about how fair value was defined. So, FASB issued SFAS No. 157 to provide a definition for fair value in one document (Financial Accounting Standards Board [FASB], 2006b; McGladrey & Pullen, 2009).

### **Statement of Financial Accounting Standards No. 157**

The definition of fair value did not change very much with the new statement; it was just condensed into one location to make compliance easier and increase consistency and comparability in fair value measurements. Fair value is the “exchange price” in the market of the asset or liability. SFAS No. 157 clarifies this price as “the price in an orderly transaction between market participants to sell the asset or transfer the liability in the market in which the reporting entity would transact for the asset or liability” (FASB, 2006b, p. 1). This market-based measurement is based on the theoretical price received for the asset or paid for the liability in a hypothetical transaction on the balance sheet date. This definition clarifies that fair value is the exit price of the asset or liability because it is the selling or transfer price from the perspective of the reporting entity, not the replacement cost, with adjustments for specific characteristics as defined in SFAS No. 157. The reporting entity finds the fair value of an asset or liability on the balance sheet date using available market information and assumptions.

There are many factors that the reporting entity must take into account when establishing the fair value of the asset or liability. It is first important to identify the asset or liability being measured because attributes specific to the asset or liability will affect the measurement. Specific attributes that affect the fair value of an item include the “condition and/or location of



the asset or liability and restrictions, if any, on the sale or use of asset at the measurement date” (FASB, 2006a, p. 6). It also makes a difference if the asset or liability being measured is a standalone asset or liability, such as an operating asset or financial instrument, or a group of assets or liabilities, such as an asset group or reporting unit. The fair value of a group of assets or liabilities may be different than the fair value of the individual items because the value of the group may be greater than sum of the individual items’ fair values.

**Transaction price.** The next consideration is about the price used. As mentioned above, the exit price of an asset or liability is the focus of fair value measurements. The price is determined as the price received for selling an asset or the price paid to transfer a liability in a hypothetical transaction. This hypothetical transaction must be considered an orderly transaction if the transaction were to actually take place. In order to be considered an orderly transaction, the transaction must have exposure to the market for a period of time that would allow the customary marketing activities to take place. This exposure is assumed in the hypothetical transaction. An orderly transaction is not a forced transaction, such as a forced liquidation, that would cause the reporting entity to accept a lower amount for the sale of an asset or pay more to transfer a liability than it would if the transaction was not forced. This essentially means that the company chooses to sell an asset or pay for the transfer of a liability, instead of being forced into the transaction by other circumstances. The price should not take into consideration any fees or costs that result from the transaction itself and are not directly related to the asset or liability (FASB, 2006a).

**Transaction market.** The market in which the theoretical transaction takes place is also an important assumption that the reporting entity must make. The transaction is assumed to occur in either the principal market for the asset or liability or the most advantageous market.

The principal market is the “market in which the reporting entity would sell the asset or transfer the liability with the greatest volume and level of activity for the asset or liability” (FASB, 2006a, p. 7). This is the market in which the reporting entity would normally dispose of the asset or liability because it is the market that is most familiar with the item. The principal market would include buyers that are looking to purchase that item and have knowledge about it. The most advantageous market is the “market in which the reporting entity would sell the asset or transfer the liability with the price that maximizes the amount that would be received for the asset or minimizes the amount that would be paid to transfer the liability” (FASB, 2006a, p. 7). This market may be different from the principal market and may result in a different exit price. The reporting entity should always use the principal market price if the principal market exists, even if the most advantageous market price is greater than the principal market price (FASB, 2006a).

**Market participants.** In addition to the asset or liability, price, and market of the transaction, the reporting entity must make assumptions about the market participants involved in the transaction. The market participants are the buyers and sellers in the market used to determine the price. The market participants are those in the market who are “independent of the reporting entity, knowledgeable (having a reasonable understanding about the asset or liability and the transaction based on all available information), able to transact for the asset or liability, and willing to transact for the asset” (FASB, 2006a, p. 7). The reporting entity does not actually identify specific market participants, but makes general assumptions about the type of market participants that would be involved in the hypothetical transaction.

**Highest and best use (asset valuation consideration).** The measurement of fair value also is influenced by whether the item being measured is an asset or a liability. For assets, the

reporting entity must assume the “highest and best use of the asset by market participants” (FASB, 2006a, p. 8). This is the assumption that the market participants will use the asset in a way that would maximize the value of the asset or the group of assets in which the asset being measured would be used. There are two different uses for assets that could be the highest and best use of the asset. The first highest and best use, called in-use, is when the asset would provide maximum value to the market participants through its use with other assets as a group. Many times, this is the highest and best use for operating assets. If the asset’s highest and best use is in-use, the fair value of the asset is based on the “price that be received in a current transaction to sell the asset assuming that the asset would be used with other assets as a group and that those assets would be available to market participants” (FASB, 2006a, p. 8). The other highest and best use for an asset is in-exchange. This is when the asset would provide the most value to the market participants by itself, instead of as part of a group of assets. Financial assets, like securities, are an example of assets that would provide maximum value on a standalone basis. When measuring the fair value of an asset with the highest and best use of in-exchange, the price is determined based on the “price that would be received in a current transaction to sell the asset standalone” (FASB, 2006a, p. 8). To determine the highest and best use of the asset, the reporting entity must consider how the market participants would use the asset and cannot consider its own use of the asset.

**Continuation of liability (liability valuation consideration).** There are factors that influence the measurement of fair value for liabilities and not assets. The reporting entity must assume that the liability continues to exist after the hypothetical transfer. Because the liability still exists, the risk of the obligation not being fulfilled, known as the nonperformance risk, remains the same. The nonperformance risk is made up of the reporting entity’s credit risk as

well as other risks. The nonperformance risk should be reflected in the fair value of the liability because it would influence the price that would be paid to transfer the liability. The reporting entity's credit standing should also be taken into consideration when measuring fair value for a liability.

**Valuation approaches.** There are a number of different ways that fair value can be measured for an asset or liability, depending on the information available and when the asset or liability is being measured. The fair value is always the exit price, as previously discussed, but at the initial recognition of an asset or liability, the fair value may be equal to the price the asset or liability was purchased at, the transaction price. The transaction price is the entry price for the reporting entity related to the specific asset or liability. The transaction price may not be equal to the fair value of the asset or liability if the transaction is between related parties or occurs under duress. In addition, if the transaction price is affected by other considerations not directly related to the asset or liability, such as rights or privileges, or if the entry and exit markets are different for the asset or liability being measured by the reporting entity, then the transaction price and fair value will not be the same (FASB, 2006a).

If the transaction price does not reflect the fair value of the asset or liability at initial recognition or if the asset or liability is being measured at fair value after initial recognition, the reporting entity should use valuation techniques consistent with the market approach, the income approach, and/or the cost approach to measure fair value. The market approach focuses on using prices and other relevant information from market transactions involving identical or similar assets or liabilities to measure the fair value of the asset or liability. The income approach uses current market expectations about the future earnings or cash flow of an asset or liability to discount the amounts back to a present value. The cost approach measures fair value as the price

that would be received by the seller based on the buyer's "cost to acquire or construct a substitute asset or comparable utility" or the buyer's replacement cost (FASB, 2006a, p. 10).

The reporting entity can use more than one valuation technique to measure fair value, if necessary. After figuring out the fair value that would result from each valuation technique, the reporting entity uses the fair value measurement that is the most reasonable out of the different fair values computed (FASB, 2006a).

**Input hierarchy.** Input data from three possible situations is used with each of the valuation techniques. The inputs are "assumptions that market participants would use in pricing the asset or liability" (FASB, 2006a, p. 10). These inputs can be defined as part of one of two categories. The first category is "inputs that reflect the assumptions market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the reporting entity" (FASB, 2006a, p. 10). These inputs are known as observable inputs and include quoted prices of assets and liabilities. The other category of inputs to valuation techniques is called unobservable inputs. These inputs "reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances" (FASB, 2006a, p. 10). Unobservable inputs may include the reporting entity's own data. When choosing a valuation technique to measure fair value, the use of observable inputs should be maximized and the use of unobservable inputs should be minimized (FASB, 2006a).

**Level 1 inputs.** In order to increase consistency and comparability among fair value measurements, FASB created a fair value hierarchy that prioritizes the observable and unobservable inputs into three levels. Observable inputs are divided between Level 1 and Level 2 while unobservable inputs are in Level 3. According to the American Institute of Certified

Public Accountants' (AICPA) summary of the statement's definitions (2006, p. 1), Level 1 uses "quoted prices for identical items in active, liquid, and visible markets". This means that the prices used are based on markets that are trading identical assets or liabilities, like a stock exchange. An active market is "a market in which transactions for the assets or liability occur with sufficient frequent and volume to provide pricing information on an ongoing basis" (FASB, 2006a, p. 11). Level 1 data inputs are the most reliable evidence of fair value and should be used before other inputs if available (AICPA, 2006).

**Level 2 inputs.** Level 2 inputs are "inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly" (FASB, 2006a, p. 11). In other words, Level 2 inputs are the observable inputs for an item that are not categorized as Level 1 inputs. Some examples of Level 2 inputs include "quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the asset or liability, and inputs that are derived principally from or corroborated by observable market data" (FASB, 2006a, p. 11). Level 2 data inputs are used for assets or liabilities where there are similar assets or liabilities, but not identical items, in active or inactive markets (AICPA, 2006). An inactive market is a market in which there are "few transactions for the asset or liability, the prices are not current, or price quotations vary substantially either over time or among market makers, or in which little information is released publicly" (FASB, 2006a, p. 11).

**Level 3 inputs.** Level 3 inputs are "unobservable inputs for the asset or liability" (FASB, 2006a, p.12). These unobservable inputs are developed based on the best information available under the circumstances and are the reporting entity's assumptions about the assumptions market participants would make in pricing assets or liabilities in a hypothetical transaction. The

reporting entity is not required to make all possible efforts to obtain information about market participant assumptions. But, the reporting entity is not allowed to ignore information about market participant assumptions so long as the information is readily available and does not require undue cost and effort. The reporting entity's own information and data can be used as Level 3 inputs. Level 3 inputs are "to be used in situations where markets do not exist or are illiquid" (AICPA, 2006, p. 2). In those circumstances, fair value becomes difficult to measure and problems can arise.

**Expanded disclosures.** In addition to providing a clear definition for fair value in one document and establishing a framework for measuring fair value, SFAS No. 157 also expanded the disclosures required for fair value accounting. The reason was to provide more transparency to financial statements where fair value is applied and to make it less confusing for users of the financial statements to understand what assets and liabilities are valued using fair value and which are valued using other measurements, like historical cost. For assets and liabilities that continue to be measured at fair value after initial recognition on a recurring basis, the reporting entity must disclose the following (FASB, 2006a, p. 12):

1. The fair value measurements at the reporting date
2. The level within the fair value hierarchy in which the fair value measurements in the entirety fall
3. A reconciliation of the beginning and ending balances for fair value measurements using significant unobservable inputs
4. The amount of the total gains or losses for the period that are attributable to the change in unrealized gains or losses relating to those assets and liabilities still held at

the reporting date and a description of where those unrealized gains or losses are reported in the statement of income

5. In annual periods only, the valuation technique(s) used to measure fair value

For assets and liabilities that are measured at fair value on a nonrecurring basis after initial recognition, the reporting must disclose the following (FASB, 2006a, p. 13):

1. The fair value measurements recorded during the period and the reasons for the measurements
2. The level within the fair value hierarchy in which the fair value measurements in the entirety fall
3. For fair value measurements using significant unobservable inputs, a description of the inputs and the information used to develop the inputs
4. In annual periods only, the valuation technique(s) used to measure fair value

In addition to these new disclosure requirements, the reporting entity must disclose information required by other FASB statements previously issued, such as SFAS No. 107: Disclosures about Fair Value of Financial Instruments.

**Issuance.** SFAS 157 was issued in September 2006 and was effective for financial statements issued for fiscal years beginning after November 15, 2007. The statement was applied to assets and liabilities in stages. Starting in November 2007, the statement was applied to the “non-financial assets and liabilities that are recognized, or disclosed, at fair value on a recurring basis” and the “financial assets of all publicly-traded companies” (AICPA, 2006, p. 2). It was then applied to other non-financial assets in 2009 (AICPA, 2006).

**Statement of Financial Accounting Standards No. 159**



Another statement relating to fair value accounting, SFAS No. 159: The Fair Value Option for Financial Assets and Financial Liabilities, which is now known as Accounting Standards Codification (ASC) 825-10 under the new FASB codification, was issued by FASB in February 2007. This statement expanded the application of fair value accounting by allowing all entities to elect to measure many financial assets and liabilities at fair value. FASB has stated in SFAS No.133: Accounting for Derivative Instruments and Hedging Activities that they are working toward a long-term goal of measuring all financial instruments at fair value. SFAS No. 159 is consistent with this goal. The objective of SFAS No. 159 is “to improve financial reporting by providing entities with the opportunity to mitigate volatility in reported earnings caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions” (FASB, 2007, p. 3).

The statement created a fair value option that allows entities to choose to measure many financial instruments and certain other items at fair value, provided the entities follow the guidelines of the statement. The entity is only allowed to select eligible assets and liabilities to apply this standard to. The business entity must then report any resulting unrealized gains or losses in earnings at each subsequent reporting date. In addition, the decision to elect the fair value option is limited. The decision must be made and applied in an instrument by instrument basis. This means that each identical asset or liability, with a few exceptions, must be elected for the fair value option individually. The decision must be applied to an entire instrument. Once the decision to apply the fair value option is made, it is irrevocable, with a few exceptions. These exceptions are events that are referred to as new election dates and include business combinations, consolidation or deconsolidation of a subsidiary or variable interest entity, and significant modifications of debt (FASB, 2007).

**Financial assets and liabilities.** It is important to know certain accounting terminology in order to understand to what the fair value option can be applied. Some financial assets are eligible under the fair value option. A financial asset is:

...cash, evidence of an ownership interest in an entity, or a contract that conveys to one entity a right (1) to receive cash or another financial instrument from a second entity or (2) to exchange other financial instruments on potentially favorable terms with the second entity. (FASB, 2007, p. 10)

Certain financial liabilities are also eligible for the fair value option. A financial liability is “a contract that imposes on one entity an obligation (1) to deliver cash or another financial instrument to a second entity or (2) to exchange other financial instruments on potentially unfavorable terms with the second entity” (FASB, 2007, p.10). Basically, financial assets and liabilities generate cash for the company, create the right to receive it through contracts or ownership, or require the company to pay cash or transfer other financial instruments to other entities.

**Eligible assets and liabilities.** SFAS No. 159 specifies the items that are eligible for the fair value option as well as the items that are not eligible. Eligible items include the following (FASB, 2007, p. 11):

1. A recognized financial asset and financial liability [except those listed below]
2. A firm commitment that would otherwise not be recognized at inception and that involves only financial instruments
3. A written loan commitment
4. The rights and obligations under an insurance contract that is not a financial instrument

5. The rights and obligations under a warranty that is not a financial instrument
6. A host financial instrument resulting from the separation of an embedded nonfinancial derivative instrument from a nonfinancial hybrid instrument

**Ineligible assets and liabilities.** Certain recognized financial assets and financial liabilities are not eligible item for the fair value option. These financial assets and liabilities include the following (FASB, 2007, p. 11):

1. An investment in a subsidiary that the entity is required to consolidate
2. An interest in a variable interest entity that the entity is required to consolidate
3. Employers' and plans' obligations for pension benefits, other postretirement benefits, postemployment benefits, employee stock option and stock purchase plans
4. Financial assets and financial liabilities recognized under leases as defined in FASB Statement No. 13: Accounting for Leases
5. Deposit liabilities, withdrawable on demand, of banks, savings and loan associations, credit unions, and other similar depository institutions
6. Financial instruments that are, in whole or in part, classified by the issuer as a component of shareholder's equity

These exceptions were chosen because FASB felt that those assets and liabilities should follow the same measurements as were required before SFAS No. 159 was issued. In addition, the fair value of some of the assets and liabilities is affected by nonfinancial components and fair value measurements should not take into consideration nonfinancial information if the asset or liability is a financial asset or liability (FASB, 2007).

**Election dates.** The election of the fair value option for an eligible asset or liability can only be made on dates on which certain events occur. The fair value option may be elected when

the eligible item is first recognized by the entity. If the entity enters into an eligible firm commitment, which would otherwise not be recorded, the entity may elect the fair value option. Certain financial assets qualify for specialized accounting that requires them to be reported at fair value with unrealized gains and losses being included in earnings. If those specialized accounting principles cease to qualify for that asset, the date on which that occurs is a date that the election can be made to apply the fair value option. On the date that the accounting treatment for an investment in another entity changes because the investment becomes subject to the equity method of accounting or the investor ceases to consolidate a subsidiary or variable interest entity but retains an interest, the entity may elect the fair value option. An election date is also created if an asset is impaired and must be written down to fair value (FASB, 2007).

**Instrument application.** The election and application of the fair value option is done on an instrument-by-instrument basis. An entity may elect the fair value option for one eligible item without electing it for other identical items, unless the identical items are closely related through a contract or equity method investment. In addition, when an entity acquires or issues multiple instruments through a single transaction, not all of the instruments have to be elected for the fair value option if one of the instruments is.

**Expanded disclosures.** SFAS No. 159 requires specific presentation of items measured at fair value under the statement as well as additional disclosures. On the balance sheet, the entity must show the fair values of items for which the fair value option has been elected separately from the carrying amounts of similar items that are measured with another measurement attribute. This can be done by showing two line items on the balance sheet, one for the fair value carrying value items and one for the non-fair-value carrying amounts, or by showing one line item with combined amounts for all similar assets or liabilities and stating the

fair value carrying amounts in parentheses. The disclosures required by the statement are required to help users of the financial statements with comparisons “(a) between entities that choose different measurement attributes for similar assets and liabilities and (b) between assets and liabilities in the financial statements of an entity that selects different measurement attributes for similar assets and liabilities” (FASB, 2007, p. 15).

***Balance sheet disclosures.*** The balance sheet disclosures are required as of each date for which an interim (during the fiscal year) or annual balance sheet is presented. These disclosures include the following (FASB, 2007, p. 16):

1. Management’s reasons for electing a fair value option for each eligible item
2. If the fair value option is elected for some but not all eligible items within a group of similar eligible items, a description of those similar items and the reasons for partial election and information to enable users to understand how the group of similar items relates to individual line items on the statement of financial position
3. For each line item that includes an item or items for which the fair value option has been elected, information to enable users to understand how each line item relates to major categories of assets and liabilities presented in accordance with Statement 157’s fair value disclosure requirements and the aggregate carrying amount of items included in each line item that are not eligible for the fair value option, if any
4. The difference between the aggregate fair value and the aggregate unpaid principal balance of loans and long-term receivables that have contractual principal amounts and for which the fair value option has been elected and long-term debt instruments that have contractual principal amounts and for which the fair value option has been elected

5. For loans held as assets for which the fair value option has been elected, the aggregate fair value of loans that are 90 days or more past due and the difference between the aggregate fair value and the aggregate unpaid principal balance for loans that are 90 days or more past due

There are also required disclosures for each period for which an interim or annual income statement is presented.

***Income statement disclosures.*** The required income statement disclosures include the following (FASB, 2007, p. 18):

1. For each line item on the balance sheet, the amounts of gains and losses from fair value changes included in earnings during the period and in which line in the income statement those gains and losses are reported
2. A description of how interest and dividends are measured and where they are reported in the income statement
3. For loans and other receivables held as assets, the estimated amount of gains or losses included in earnings during the period attributable to changes in instrument-specific credit risk and how the gains or losses were determined
4. For liabilities with fair values that have been significantly affected during the reporting period by changes in the instrument-specific credit risk, the estimated amount of gains and losses from fair value changes included in earnings that are attributable to changes in the instrument-specific credit risk, qualitative information about the reasons for those changes, and how the gains and losses were determined

These disclosures are required in addition to the required disclosures in SFAS No. 157 and other statements. The disclosures are designed to assist the users of the financial statements in

understanding and comparing the financial statements with other entities' financial statements (FASB, 2007).

**Issuance.** SFAS No. 159 was issued in February 2007 and was effective for financial statements issued for fiscal years beginning after November 15, 2007. At the effective date, entities could elect the fair value option for eligible items that existed at that date. If an entity elected the fair value option, the annual financial statements and the first-interim-period financial statements for that first fiscal year must have included information about why the decision was made and how it affected the financial statements (FASB, 2007).

### **Recent Changes**

There have been amendments and changes to the fair value accounting policies set by SFAS No. 157 and SFAS No. 159 in recent years. These changes are a result of the fair value debate that has been going on for the past few years, which is discussed in the next section of this paper. FASB has experienced pressure from opponents of fair value accounting as well as Congress to make changes to fair value accounting standards since the credit crisis started.

As a result of pressure from Congress in 2009, FASB allowed cash flow accounting to be used in illiquid markets for a period of time during the crisis, instead of fair value accounting (Forbes, 2010). An illiquid market is one in which it is difficult to sell an asset or transfer a liability due to a lack of market liquidity. In April 2009, FASB issued FASB Staff Position (FSP) No. FAS 157-4: 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, which provides additional guidance for estimating fair value when Level 3 inputs must be used due to significant changes in the market and level of activity for an asset or liability (FASB, 2009). In addition, to make the measurements and the underlying judgments more clear

and understandable, FASB issued an Accounting Standards Update (ASU) in January 2010 known as ASU No. 2010-06: Improving Disclosures about Fair Value Measurements (FASB, 2010). This update does not change SFAS No. 157 directly, but is actually an amendment to ASC 820-10: Fair Value Measurements and Disclosures – Overall Subtopic, a section of the FASB Accounting Standards Codification that is now in effect and includes SFAS No. 157. This ASU was issued in order to improve the disclosures about fair value measurement to benefit users of the financial statements and increase transparency in financial reporting. FASB is continuing to work with each side of the fair value accounting debate to improve fair value accounting policies and to mitigate or fix some of the weaknesses of fair value accounting discussed in the next section of this paper.

SFAS No. 157 and SFAS No. 159 have significantly changed fair value accounting in the U.S. The clear definition of fair value accounting provided by SFAS No. 157 has allowed for more uniform understanding and application of fair value. SFAS No. 159 has greatly changed the measurement of many financial assets and liabilities and has allowed FASB to continue progressing toward the long-term goal of measuring all financial assets and liabilities at fair value. Not everything about these two statements has resulted in improvements to fair value accounting. There has been increased debate in the past few years regarding the requirements, definitions, and applications set forth by SFAS No. 157 and SFAS No. 159.

### **The Fair Value Debate**

There has been controversy surrounding fair value accounting since it was first used under US GAAP, but the controversy over fair value accounting has become a hotter topic in recent years. With the issuance of SFAS No. 157 and SFAS No. 159, fair value accounting has become more prominent in financial statements and has therefore drawn more attention. In



addition, in late 2007, the major markets crashed due to a credit crisis that originated in the mortgage markets. When the markets crashed in late 2007 and in 2008, the value of asset-backed securities fell, especially “those tied to sub-prime mortgages” (Fornelli, 2009, p. 1). Once this happened, financial institutions had to write down many of their assets, which caused those institutions’ market value to decline (Fornelli, 2009). These problems led to the current debate about fair value.

This debate over fair value accounting focuses on whether or not fair value accounting should be kept in practice and involves people throughout the business world, not only accountants. Because the financial institutions, such as banks, credit unions, and insurance companies, were hit the hardest by the credit crisis and had to write down the value so many of the assets they held, they have been on the leading front of those who oppose fair value accounting. In addition, many of the preparers of corporate financial statements are against full fair value accounting, which would apply fair value measurements to all assets and liabilities, because it requires a lot of estimations and can lead to large fluctuations in the income statements (Jensen, 2007). On the other hand, there has also been widespread support of fair value accounting. Many financial analysts are in favor of fair value accounting (Jensen, 2007). In addition, most investors and other users of the financial statements are in favor of fair value accounting because it gives “additional insight into the risks to which the company may be exposed and the potential liquidity issues the company could face if it needed to sell securities rather than hold them for the long-term” (U.S. Securities and Exchange Commission (SEC), 2008, p. A-4). There are also other people who oppose or support fair value accounting for various reasons.

Those who oppose fair value accounting have many arguments against fair value accounting that cite the weaknesses revealed during the credit crisis, especially the weaknesses related to the Level 3 inputs in the fair value hierarchy established in SFAS No.157. The credit crisis started in late 2007. It intensified during the winter of 2008-2009 and caused many markets to crash, resulting in major problems for many companies. This crash caused the markets to become illiquid. As mentioned previously, fair value in illiquid markets must be measured using Level 3. As a result of the credit crisis and the illiquidity of markets, financial institutions had to write down a total of over \$350 billion of assets (Moyer, 2008). These write downs resulted in many of these institutions showing losses on their financial statements and led to a push for the suspension or end to fair value accounting.

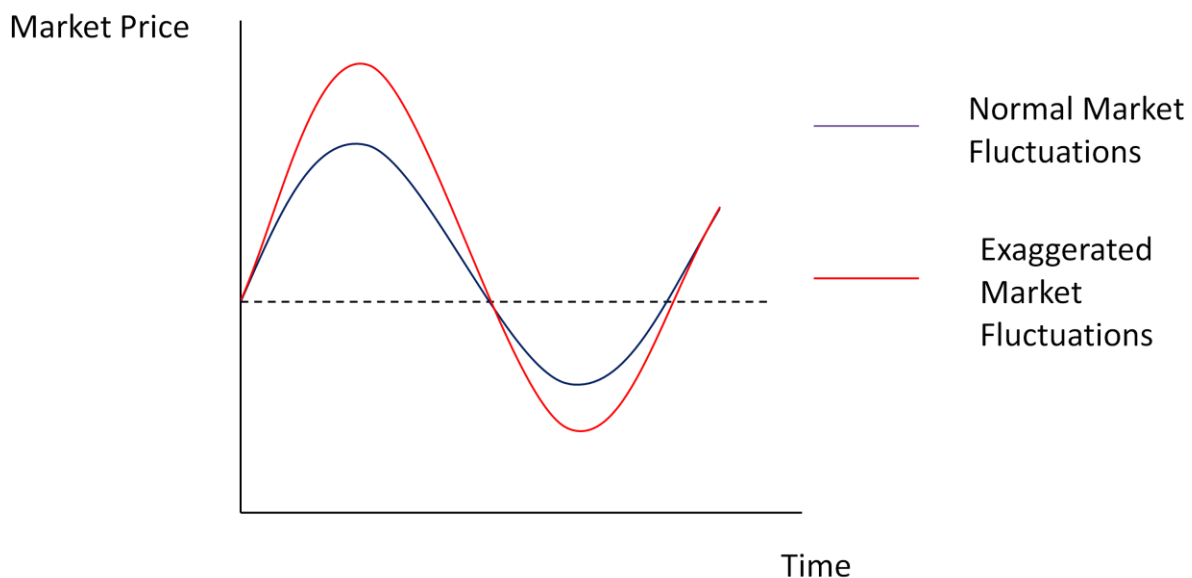
<b>Opposing Arguments</b>	<b>Supporting Arguments</b>
<ul style="list-style-type: none"> <li>▶ <b>Pro-cyclicality</b></li> <li>▶ <b>Recognition of unrealized gains and losses that may eventually be reversed</b></li> <li>▶ <b>Information volatility</b></li> <li>▶ <b>Imprecision</b></li> <li>▶ <b>Expensive</b></li> <li>▶ <b>Related economic hardships</b></li> </ul>	<ul style="list-style-type: none"> <li>▶ Limitations of historical cost accounting</li> <li>▶ Reduce the opportunities for earnings management</li> <li>▶ Reflects how companies operate</li> <li>▶ Information accuracy</li> <li>▶ Relevancy</li> </ul>

### **Arguments in Opposition to Fair Value Accounting under Statement of Financial Accounting Standards No. 157**

There are six main points used by critics of fair value accounting to show how fair value accounting is not the best measurement to use for assets and liabilities. The first argument is that fair value is very pro-cyclical, which can lead to financing problems for companies. Fair value accounting also causes the recognition of unrealized gains and losses that may eventually be reversed. Another weakness of fair value accounting that opponents point out is that it

introduces information volatility to the financial statements. They also argue that fair value accounting is often imprecise, which can make the information on the financial statement irrelevant and unreliable for investors. Another argument against fair value accounting is that it is very expensive because the fair values of assets and liabilities change frequently and must often be estimated by experts. In addition, opponents of fair value accounting believe that it was the cause of many of the economic hardships that have occurred in the past century.

**Pro-cyclicality.** One of the weaknesses of fair value accounting used as an argument against it is fair value accounting is pro-cyclical. Pro-cyclicality is the “amplification of otherwise normal cyclical business fluctuations, both in booms and in busts, creating preconditions for increasing instability and vulnerability of the financial system” (Lefebvre, Simonova, & Mihaela, 2009, p. 14). Fair value accounting leads to recognition of gains or losses that follow the cycles of the economy, which can lead to exaggerated cycles, and can “exacerbate cyclical movements in asset and liability values” (Lefebvre, Simonova, & Mihaela, 2009, p. 15). The following graph depicts the pro-cyclicality of fair value accounting. The blue line shows normal market fluctuations and the red line shows what can happen with fair value accounting.



In boom periods, fair value for assets increase, allowing companies to write-up the value of those assets and overstate profits through recognizing gains on those assets in earnings. These increases in profits and the value of assets allow financial institutions to increase their leverage, which is how much borrowed money a company is utilizing, because the amount a company can borrow is often tied to the value of the company's assets (WebFinance, Inc, 2010). The problem with increasing leverage is the risk that the company may not be able to make payments on their debt. In addition to increased leverage, the increases in profits and in the values of the assets held by a company limit the incentives for the company to create reserves that can be used during times of crisis.

On the other hand, during bust periods, fair value accounting causes companies to write down assets to new lower market values. This can put downward pressure on pricing in the already weakened markets, leading to even further declines in market prices. This happens because financial institutions may try to counteract the write downs of their assets by selling securities in the illiquid markets, even though, originally, the securities were going to be held to maturity. Held to maturity means that the company plans to keep the securities until the date the security is to be repaid by the issuing company. The sale of these securities will result in a lower exit price than if the companies could have held onto the securities as planned. These forced sales then become the observable inputs used by other companies to value their assets at fair value. By using the information from the forced sales, the other companies will have to reduce the value of their own assets more than they would have had to otherwise, in order to reflect the lower exit price that would be received in the current market. In addition, the non-distressed companies that want to sell securities in that market may wait until the market price can recover from the lowered price due to the forced sales before they actually sell their securities. This

delay can prevent the market price from returning to the value that truly reflects the future earning power of the securities, which in turn extends the length of time that the market is illiquid and depressed (Lefebvre, Simonova, & Mihaela, 2009). Forced sales can also render asset price dependent on market liquidity rather than on future earning power of the asset (Laux, & Leuz, 2009). This is because if a company has no choice but to sell an asset, the asset's market price will be even lower if the market is illiquid or has lower than normal liquidity. A less liquid or illiquid market makes it more time consuming and costly to sell an asset at a price that reflects the asset's earning power and causes companies to accept a price for the sale that is more reflective of the market conditions than of the characteristics of the assets itself.

*Counterarguments to the pro-cyclical arguments.* There are counterarguments to the argument that fair value accounting is pro-cyclical and therefore not a good accounting measurement to use under US GAAP. While supporters recognize that it is pro-cyclical, they argue that this is not necessarily a bad thing. Measuring assets and liabilities at fair value may be beneficial during bust periods. This is because fair value measurements may reveal “early warning signals for an impending crisis,” which can be used to try to “reduce the severity of a crisis and the intensity of price decline” (Lefebvre, Simonova, & Mihaela, 2009, p. 14). This is a fact that the argument about the pro-cyclical of fair value accounting tends to ignore. In addition, while the pro-cyclical can create some volatility in the markets, “volatility on balance sheets is primarily caused by the risk management framework and investment decision protocols employed by asset holders rather than the fair value accounting framework itself” (Lefebvre, Simonova, & Mihaela, 2009, p. 15). The pro-cyclical exists but may not be as much of a big deal as the people who oppose fair value accounting make it out to be.

**Recognition of unrealized gains and losses that may eventually be reversed.** Another argument used against fair value accounting that relates to its pro-cyclicality is the recognition of unrealized gains and losses that often will be reverse in the future. The economy is cyclical and leads to many ups and downs in the prices of assets and liabilities in the market. As a result, assets and liabilities that are held over many cycles in the markets will have fair values that increase and decrease with the market fluctuations (Jensen, 2007). A company will have to write down the values of assets and report losses in income statement as the market experiences a downward trend and the fair value of the company's assets decrease. These reported losses can be misleading because the losses may be only temporary. The losses will be temporary if the company does not plan to dispose or sell of the asset immediately. If the company holds on to the asset for longer than the trough in the market lasts, the fair value of the asset is likely to rebound and lead to the company writing the fair value of the asset back up, as the market returns to normal. This write down and subsequent write up is costly, time consuming, can be confusing for users of the financial statements, and pointless to the extent that it reverses within just a few months or years. Unrealized gains that are recorded as the market improves can also be misleading because the market is going to eventually return to normal, which will cancel out the recorded gains, if the company holds on to the assets until the market returns to normal (Ryan, 2008).

In addition, these gains generate passive income, which is not the type of income investors want to see being generated by a company. Passive income is generated by changes in the environment and markets the company operates in and the resulting increases in the value of the company's investments. The income generated by market changes is not controlled by management and cannot be easily reproduced. Investors prefer to see the generation of active

income, which is created through management's efforts. Critics of fair value accounting claim that the passive income included with the active income that is actually generated by a company on the financial statements can be misleading for investors, especially those who may not realize that some of the company's income is the result of market changes that cannot be controlled by the company (Mulford, 2007). The unrealized gains or losses may overwhelm the actual realized gains or losses on the periodic income statements, which is cause the income statements to be misleading (Jensen, 2007).

In addition to normal market fluctuations, there is a situation that will cause unrealized gains and losses to reverse if the company holds onto the assets or liabilities. It occurs when the prices in the market represent bubble prices. Bubble prices are prices that have been "inflated by market optimism and excess liquidity" or "depressed by market pessimism and illiquidity" and do not reflect the fundamental values of the assets or liabilities (Ryan, 2008, p. 11). This means that market prices are not representative of the actual value of the asset or liability because investors believe the market is better or worse than it actually is, causing the market to fluctuate further, or the market is either so liquid that the market prices are higher than they would be if the market was at normal liquidity or is illiquid. Bubble prices can be caused by investor irrationality and market imperfection, as well as rational short-term investor decisions in sensitive markets. In SFAS No.157, FASB decided that the possible existence of bubble prices should not affect how fair value measurements are taken because it is hard to know when they actually exist. This means that bubble prices can affect the fair values of assets or liabilities and result in unrealized gains and losses being recorded that may be reversed going forward because no adjustment or consideration is made for the effect of these unsupported prices (Ryan, 2008).

**Information volatility.** Another criticism of fair value accounting is that it may introduce increased volatility of information into the financial statements. Research conducted by the International Accounting Standards Board (IASB) in 2004 identified three potential sources of information volatility that could be introduced by fair value accounting. The first potential source of volatility is changes in the underlying economic conditions and markets, which are reflected in the changes of the fair value itself. The volatility in the financial statement information caused by fair value can make the information less relevant and less reliable for investors. Information volatility is most observable when the economic conditions change very rapidly as they did in 2008, when many markets become illiquid. Another potential source of unpredictability is estimation error volatility. This could happen because fair value is an estimate based on a hypothetical transaction and the estimation model specifications and assumptions may incorrectly reflect reality. Fair value measurements based on Level 1 and Level 2 inputs show the most volatility when the economic conditions change rapidly because they are based on actual market inputs, whereas fair value measurements based on Level 3 inputs are most likely to have volatility related to estimation error (Ryan, 2008). The third possible source of information volatility is caused by the mixed-model volatility from requiring or allowing some assets and liabilities to be valued at fair value while others are valued at historical cost or based on other measurements (Barth, 2004).

**Imprecision.** The large amount of imprecision of the estimates in fair value accounting, especially compared to historical cost, is another weakness opponents of fair value point out in their arguments. As discussed earlier, when markets become illiquid, SFAS No. 157 states that Level 3 inputs should be used to measure fair value. These inputs are assumptions and estimates



made by the company that may not be very precise. Level 2 inputs also are not always very precise because prices and information for similar items rather than identical items must be used.

The imprecision of fair value accounting can lead to serious indirect costs for the companies. These indirect costs can come in the form of investors devaluing companies. Investors are likely to devalue companies when the information in the market lacks validity, causing the information provided in financial statements to not be very precise. In addition, imprecision can lead to investments in companies that result in investors' losses. A company may not have done anything to try to deceive the investors, but information available to the company when measuring fair value or the company's estimation of fair value may not have been very precise causing unexpected losses. This can make investors more wary of companies, especially the management, board of directors, and auditors. In addition, imprecise and therefore less reliable information that causes investors to lose money can lead to class action lawsuits, not only against the company, but also against the auditors and others involved in making the estimates for the measurement of fair value (Campbell, Owens-Jackson, & Robinson, 2008). Loss of investor trust and lawsuits can be very costly for companies and may cause funding problems for companies, even though they had no control over the quality of information in the market and the estimates used followed the recommendations of SFAS No. 157.

**Expensive.** Critics of fair value accounting also point out that because the fair value of assets and liabilities change almost daily, there is a high cost to ensuring that the fair value information included on the financial statements is as accurate as possible. Companies must continually figure out when they should use fair value and when to use historical cost, which level of inputs they should use for their assets and liabilities, which market is the primary market for each asset or liability to which fair value is applied, and what might change the fair value of

the asset or liability. Because companies may not have the staff who is qualified to answer these questions, hiring consultants or additional accounting staff may be necessary for those companies.

In addition to the extra cost of the consultants and more accounting staff, companies will have to spend more on auditors' fees because companies must have external auditors provide assurance that the fair value estimates are valid. Verifying the estimates can consume a lot of the auditors' time because each level of inputs must be examined to make sure the inputs chosen and used are the ones that make sense. Level 1 and Level 2 inputs must be scrutinized to see if the market choice and the use of appraisers are valid and appropriate. Level 3 inputs will always have to be looked at in order for auditors to provide reasonable assurance that management has not manipulated the numbers and assumptions to have a more favorable outcome. Many auditors will not have enough knowledge about fair value to say if the fair value measurement is valid and will therefore have to bring in valuation experts and appraisers to determine the validity of the fair value measurements of the assets and liabilities. These expert opinions are not cheap and will have to be obtained for annual financial statements and possibly each time interim financial statements are released.

None of these expert opinions can eliminate the uncertainty around asset and liability valuations because experts often disagree about the best way to evaluate fair value. There are four fair value estimates that could be used depending on the purpose of the estimate: purchase value, selling value, auction value, and replacement value. To follow the valuation framework set by SFAS No. 157, the selling value would always have to be estimated but the other estimates may be needed if the asset must be replaced or is going to be auctioned off and must be valued based on that use (Campbell, Owens-Jackson, & Robinson, 2008). In addition, the use of

appraisers will require more regulation in the appraisal industry, which could cost the companies having their assets and liabilities appraised, as well as for the taxpayers who will have to pay for the additional committees and regulatory boards to create and enforce the additional regulations. Overall, fair value accounting is a costly method to use for the companies that must use it.

**Related economic hardships.** Quite a few critics have blamed fair value for many of the economic hardships that this country has faced, including the credit crisis. Fair value was widely used in accounting before the Great Depression but was ended in 1938 by President Franklin D. Roosevelt (Cocheo, 2009). President Roosevelt ended the fair value accounting practices because they were believed to have contributed to the distress of the Great Depression as the soundness of the banking system looked worse than it really was due to fair value measurements. Because the banking system appeared so bad, fewer investments were made, which eventually led to the situation becoming as bad as it looked (Forbes, 2010).

In 1975, FASB started to slowly bring back fair value accounting by issuing SFAS No. 12: Accounting for Certain Marketable Securities (Center for Audit Quality [CAQ], 2009). In 1980s, the savings and loans industry experienced large failures. One of the primary causes of these failures is thought to have been fair value accounting practices.

In addition, fair value accounting was used in many of the accounting frauds that took place in the early 2000s, the main scam being Enron. The SEC and the Federal Reserve, among other regulatory agencies, are worried that fair value accounting could lead to more fraud being committed by companies. Management discretion is expanded by fair value accounting through the use of estimates, which can be manipulated by management to look better than reality (Campbell, Owens-Jackson, & Robinson, 2008).

Critics have blamed fair value accounting for being the cause of the most recent credit crisis. This led to Congress pressuring the FASB to release new guidelines for measuring fair value allowing greater exercise of judgment for preparers and auditors. In addition, Congress ordered the SEC to investigate the credit crisis and the role fair value accounting had played in it. The SEC concluded that fair value was not the cause of the credit crisis. Some still argue that fair value accounting had caused the credit crisis to be larger than it would have been otherwise, while others, such as Steve Forbes, still believe that fair value accounting was the cause of the crisis (Fornelli, 2009).

Opposing Arguments	Supporting Arguments
<ul style="list-style-type: none"> <li>▶ Pro-cyclicality</li> <li>▶ Recognition of unrealized gains and losses that may eventually be reversed</li> <li>▶ Information volatility</li> <li>▶ Imprecision</li> <li>▶ Expensive</li> <li>▶ Related economic hardships</li> </ul>	<ul style="list-style-type: none"> <li>▶ <b>Limitations of historical cost accounting</b></li> <li>▶ <b>Reduce the opportunities for earnings management</b></li> <li>▶ <b>Reflects how companies operate</b></li> <li>▶ <b>Information accuracy</b></li> <li>▶ <b>Relevancy</b></li> </ul>

### **Arguments in Support of Fair Value Accounting under Statement of Financial Accounting Standards No. 157**

Opponents make valid arguments that highlight the weaknesses of fair value accounting, but its proponents also make good arguments that show why it is beneficial and needed. Proponents have five main arguments, which are interrelated to an extent by the fact that fair value helps the investors and other users of financial statements understand what companies are doing with their assets and liabilities and what that means for them. The first is the limitations of historical cost accounting, which is the main alternative to fair value accounting. Secondly, supporters point out that fair value accounting practices can reduce the opportunities for earnings

management and can lead to less risky investments being made. In addition, they point out that fair value accounting reflects how companies operate. Another benefit is the accuracy of the information that is provided to investors. The final main argument in support of fair value accounting is it gives the financial statement users better insight into the current economic condition of the company, making the information provided by the statements more relevant to the users.

**Limitations of historical cost accounting.** One of the main arguments in support of fair value accounting is that the primary alternative to it, historical cost accounting, has too many limitations. As discussed above, historical cost accounting records an asset on the financial statements at the cost of the asset less any adjustments that are necessary, such as depreciation. While there are benefits to using historical cost, such as its simplicity and low administrative costs, it has many limitations.

One of the biggest issues supporters of fair value have with historical cost is that “it does not reflect the true economic value of financial instruments” and it is adjusted to reflect the true economic value in just a few situations that do not occur very often, such as when the value of the asset or liability has been permanently altered and the company can prove it (Lefebvre, Simonova, & Mihaela, 2009, p. 17). In addition, historical cost is not sensitive to changes in inflation and the purchasing power of currency. This can lead to companies overstating earnings when prices are rising and understating how much capital assets are able to maintain their value. While opponents of fair value point out that fair value measurements are based on a significant number of estimates, which can cause quite a few problems, the same can be said for the historical cost method. Historical cost uses a relatively large number of subjective estimates, such as economic life of the asset, allocations of joint and indirect costs, reserves for bad debt,

and warranty liabilities, among others (Jensen, 2007). Historical cost accounting assumes that companies are going concerns, which can cause problems for companies that fall in the grey area between being a going concern and needing to liquidate. While it is generally a benefit that historical cost accounting is simple, there are many transactions that are very complex for which the historical cost method is too simplistic. An example of a complex transaction that historical cost is too simplistic to deal with is an interest rate swap in which the cost of the swap is zero but the swap creates an obligation for the company to pay large amounts of money (Campbell, Owens-Jackson, & Robinson, 2008).

In the past few decades, there has been a shift in the U.S. economy away from manufacturing towards more idea-based businesses. This has caused many of the real assets on many companies' books today to be "soft" assets. Soft assets are assets such as concepts and ideas that cannot be seen and touched, rather than physical assets that are more commonly used in manufacturing companies. These soft assets require the use of measurement techniques that are beyond the scope of historical cost accounting because soft assets are often intangible and do not have a cost when obtained. Historical cost is not as well suited to a knowledge-based economy as fair value accounting is. In addition, historical cost accounting shows book values on the financial statements that are not very relevant for investors and other users of the financial statements. This irrelevance is because there is usually a large difference between the market value of a company, such as the New York Stock Exchange numbers, and the amount of net assets on the financial statements. The market value of a company can be five times higher than the book value of the assets on the financial statements or higher. In addition, companies can manage income through selective realization of cumulative unrealized gains and losses on assets and liabilities (Ryan, 2008). With such a big difference in the values of a company, the

information in the financial statements is often irrelevant (Campbell, Owens-Jackson, & Robinson, 2008). While both fair value and historical cost accounting have strengths and weaknesses, supporters of fair value accounting argue that historical cost accounting has too many weaknesses to continue to be the appropriate option to use on financial statements, especially because the situations that show weaknesses of historical cost accounting are where the strengths of fair value accounting are the greatest.

**Reduce the opportunities for earnings management.** Supporters of fair value accounting argue that it can reduce the opportunity for earnings management and may lead to companies making less risky investments. As mentioned in the previous paragraph, companies can manage net income by choosing to realize gains or losses in the current period that were unrealized in previous periods by selling assets or transferring liabilities when it is known that sale will result in a gain or a loss. If a gain results, it makes net income higher if the company was unable to generate the profits expected by financial analysts. If a loss results from the transaction, it can reduce net income if the company does not want investors to expect such high returns in the future. This can be beneficial to the company, but can also hide the economic realities of the company's operations from investors and users of the financial statements.

Fair value limits companies' ability to do manage net income because gains and losses on assets and liabilities must be reported in the period in which they occur, instead of when the company chooses to realize them through completing a transaction (Ryan, 2008). This helps prevent investors from being misled by financial statements that make it appear as if the company is in good financial health when, in reality, the company is suffering from financial problems. Some people argue that while SFAS No. 157 limits the subjectivity involved in the measurement of assets and liabilities, it is still not enough to stop unscrupulous managers from

playing financial numbers games (Mulford, 2007). This is something that FASB is continuing to work on limiting as much as possible.

Another benefit of fair value accounting and the recognition of gains and losses in the period they occur is that it may lead to companies choosing to make less risky investments because they know that they must mark the values of their assets to the market values (Moyer, 2008). This means that if high risk investments are chosen by a company, there is more risk for large losses if the investment does not work out, which will have to be recognized on the company's financial statements. Recognizing these large losses will allow the investors to fully understand the risk of investing in that company. If investors are afraid they will suffer large losses on their investment in a company, they will not be as likely to invest in the company. If companies are afraid of losing investors, the companies will choose to make less risky investments, which may lead to less companies suffering from large losses if an investment market collapses like in the recent credit crisis.

**Reflect how companies operate.** Another argument used by proponents of fair value accounting is that it reflects how companies, especially financial institutions, operate. Financial institutions often operate by making investments in markets and rely on the market changes to generate value for the company. Using fair value accounting can show on the financial statements how the investments are working for the company and what the economic situation of the company is (Nally, 2010). In addition, companies focus on how much value can be generated by their assets and liabilities. Fair value allows the users of the financial statements to focus on measuring value and value creation. Therefore, fair value accounting reflects on the financial statements the information used by the companies to make operating decisions.



**Information accuracy.** The accuracy of the information provided in financial statements when using fair value accounting and the transparency it provides is another benefit proponents point out in their arguments. While there are problems with the measurement of fair value, especially when using Level 3 inputs, overall, the measurement of fair value provides information about the value of assets and liabilities and accurately reflects the market and economic conditions. Only a small proportion of U.S. companies' assets and liabilities are measured using Level 3 inputs (Campbell, Owens-Jackson, & Robinson, 2008).

The use of fair value provides additional transparency in the financial statements by showing accurate up-to-date measurements of the exit market values of the assets and liabilities. While opponents of fair value accounting argue that it is too imprecise and can result in measurement errors, especially when the markets are illiquid, a suspension or elimination of fair value will reduce transparency and cause even more inconsistencies and problems for users of the financial statements, especially in illiquid markets (Center for Audit Quality [CAQ], 2009). In addition, the companies can use disclosures in the notes of the financial statements to explain the judgments that were made that influenced the measurements of the value of the assets and liabilities (Center for Audit Quality [CAQ], 2009). Many disclosures are already required that do this, as mentioned above. These disclosures can assist investors and other users in understanding what inputs were taken into account in the measurements and how they may or may not have affected the values included in the financial statements.

**Relevancy.** The final main argument of proponents is that the use of fair value accounting allows for better insight into the economic reality of companies by reporting amounts that are more relevant, accurate, timely, and comparable than other alternatives. This is especially true now that SFAS No. 157 provides one consistent definition and framework for

measuring fair value. In order for fair value to be the appropriate choice for accounting measurement of certain assets and liabilities, it is important that it is relevant to what the investor community is looking for and adjusts over time to the changes in the investor community. Supporters say that FASB and fair value accounting are doing just that with the issuance of SFAS No. 157 and SFAS No. 159. The main purpose of financial reporting is “to portray the underlying economic position of the company and reflect the genuine economic fluctuation of the business cycle” (Lefebvre, Simonova, & Mihaela, 2009, p. 18). Fair value does this by reporting values that are updated on a regular and ongoing basis. Because the values of assets and liabilities are re-estimated at every reporting date, any valuation errors can and should be corrected at the next reporting date to continue to reflect the fluctuations in the business cycle. In addition, the gains and losses that must be recognized each reporting period indicate the economic events that investors may want additional disclosures about or that they might not have been aware of if other measurement alternatives were used. This adds to the transparency of the companies.

Each side of the fair value debate has very strong opinions about how the fair value issues should be dealt with. The arguments against fair value accounting focus on the weaknesses of fair value, such as its tendency to be pro-cyclical, its high cost and large amounts of imprecision, and the relationship between fair value and many times of economic hardship in this country. The arguments in favor of fair value accounting emphasize the serious limitations to historical cost accounting, fair value can reduce opportunities for managing earnings, and fair value best addresses the needs of investors and other financial statement users by providing transparency through relevant and reliable information.

### **Debate over Fair Value Option of Statement of Financial Accounting Standards No. 159**

While the debate over fair value accounting has focused primarily on the effects of the fair value definition and measurement framework provided by SFAS No. 157, there has been some controversy surrounding the fair value option of SFAS No. 159.

Opposing Arguments	Supporting Arguments
<ul style="list-style-type: none"> <li>▶ Optional</li> <li>▶ Inconsistencies between companies</li> <li>▶ Company comparisons are difficult and more expensive</li> <li>▶ Delay adoption of further fair value accounting changes</li> </ul>	<ul style="list-style-type: none"> <li>▶ Expanded fair value measurements</li> <li>▶ Opportunity to mitigate some earnings volatility</li> <li>▶ Further convergence with the International Accounting Standards Board (IASB)</li> </ul>

While there are significant benefits associated with the fair value option, such as expanded fair value measurements, the opportunity to mitigate earnings volatility to some extent, and the achievement of further convergence with the IASB, there are valid arguments that have been made against the fair value option that must be taken into consideration.

The biggest problem with the fair value option is that it is optional. By allowing companies to choose whether or not to apply fair value accounting practices to different assets and liabilities, inconsistencies in financial reporting may develop between otherwise similar companies. Two of the five members of FASB issued dissenting opinions as part of SFAS No. 159. Thomas Linsmeier, who was appointed to FASB in July 2006, believed that providing the fair value option to companies would allow those companies to report significantly less earnings volatility than they were actually exposed to. If the fair value of an asset or liability increased or decreased and the company does not elect the fair value option for that item, the reported earnings will not reflect the true earnings volatility the company was exposed to. In addition, the option makes it harder and more costly for users of the financial statements to compare financial

statements of different companies because similar assets may be measured using different measurement bases. The other dissenting FASB member was Donald Young, who was appointed to FASB in January 2005. Young argued that SFAS No. 159 would not improve financial reporting because the availability of the option would likely delay the adoption of consistent fair value measurements on financial statements, it impairs consistency and comparability of the financial statements, it can produce misleading financial reporting, and its benefits do not justify the increased cost to the users of the financial statements. Young said that the fair value option reduces understandability and increases costs for users of the financial statements (FASB, 2007). Another problem with the fair value option is that it could lead to cherry-picking which items are measured with fair value accounting. This could result in more confusing financial statements and could reduce comparability between companies (Jensen, 2007).

While considering the debate over fair value, it is important to keep in mind that there have always been debates over different accounting rules and these debates will continue into the future. The recent debate over fair value has been going on since before the credit crisis started but has intensified in the last few years (Fornelli, 2009). While each side has valid points that must be taken into consideration going forward, it is important to realize why fair value accounting has made a comeback after being ended in 1938.

One debate that had an influence on the push toward fair value accounting is the debate over historical cost accounting. As previously discussed, neither fair value accounting nor historical cost accounting are perfect. The debate over historical cost led to FASB to look into implementing more fair value accounting to resolve some of the problems faced with historical cost.

Another reason there has been a push to use fair value accounting more in US GAAP is because of the planned convergence with the International Financial Reporting Standards (IFRS), which applies fair value in more situations than current US GAAP (Freshfields Bruckhaus Deringer LLP, 2009). As the convergence approaches, FASB has been working to adjust US GAAP to be similar to IFRS.

In addition to the historical cost debate and the convergence with IFRS, the past few decades have seemed to be a good time to reintroduce fair value accounting into the accounting standards because there has been more focus put on showing companies' true economic situations and provide transparency in the financial statements, especially after the frauds and scams of the early 2000's. Overall, throughout the recent debate, there has been widespread support of fair value accounting.

### **Actual Use by Fortune 500 Companies**

Now that the concepts behind SFAS No. 157 and SFAS No. 159 have been discussed and the different sides of the current fair value debate have been presented, it is time to look at fair value accounting in context for actual companies to better understand the realities of fair value accounting when in use. In order to understand the application of fair value accounting and measurements, an examination of the most recent financial statements for some of the 2010 Fortune 500 companies was done. The Fortune 500 companies are ranked annually by Fortune magazine based on gross revenues (Fortune Magazine, 2010). The Fortune 500 list was chosen as the population for the research because the list includes companies from many different industries with various backgrounds and accounting histories, allowing for a diversified sample. It is important to consider how the fair value accounting statements affect companies in the different industries because certain ones, such as the financial and banking industries, were hit

harder than others by the credit crisis as a result of fair value accounting requirements and practices.

### **Sampling Method**

After obtaining a list of the top 500 companies of 2010, a sample of 50 companies was selected. A sample size of 50 was chosen because it provided for an examination of 10% of the population and would be a big enough sample to be representative of the population without being overly inefficient. To generate the sample, the list of the 2010 Fortune 500 companies was entered into a Microsoft Excel worksheet. The sampling data analysis tool was used to randomly generate a list of the 50 companies whose financial statements would be examined. The resulting sample included companies from many different industries, from manufacturing companies to retail chains to financial institutions. In addition, the companies are located in many different states across the country, as well as in different countries for some. The companies ranged from the second highest ranking company on the Fortune 500 list, Exxon Mobil Corporation, to Fiserv, Inc., which was ranked as number 491 on the list of 500 companies. These large differences between the companies in the sample showed the full range of the application of fair value accounting and the effect of it for a company based on the company's unique characteristics and operations. The following 50 companies made up the sample for this research:

Abbott Laboratories	Genuine Parts Company	Owens-Illinois, Inc.
Baxter International Inc.	Gilead Sciences, Inc.	PACCAR Inc
Becton, Dickinson and Company	Hertz Global Holdings, Inc.	Pepco Holdings, Inc.
Broadcom Corporation	The Home Depot, Inc.	PetSmart, Inc.
Cablevision Systems Corporation	Illinois Tool Works Inc.	Pitney Bowes Inc.
The Charles Schwab Corporation	JPMorgan Chase & Co.	Principal Financial Group, Inc.
CHS Inc.	Johnson Controls, Inc.	Progress Energy, Inc.
Citigroup Inc.	KeyCorp	Rite Aid Corporation
The Clorox Company	Kimberly-Clark Corporation	Smith International, Inc.
Corning Incorporated	The Kroger Co.	Time Warner Cable Inc.
Davita Inc.	Macy's, Inc.	Tyson Foods, Inc.
Eastman Chemical Company	Marathon Oil Corporation	Union Pacific Corporation
Ecolab Inc.	Microsoft Corporation	United Stationers Inc.
Edison International	Monsanto Company	Winn-Dixie Stores, Inc.
Exxon Mobil Corporation	The Mosaic Company	XTO Energy Inc.
Fiserv, Inc.	Nucor Corporation	Yum! Brands, Inc.
Gamestop Corp.	Omnicare, Inc.	

After the sample was generated, each company's financial statement was obtained online. A company's financial statements are included in the company's 10-K, which is an annual report released by public companies that gives an overview of the company, its activities for the year, and detailed financial data for the company's fiscal year-end. A 10-K is required by the SEC for each company that has issued public shares of stock under the Securities and Exchange Act of 1933. Each 10-K is made electronically available to the public on the SEC website. Using the EDGAR tool on the website, a search of company filings by the name of the company in the sample or by the company's ticker symbol for the New York Stock Exchange was completed. Once the proper company was identified out of the list of companies with similar names to the Fortune 500 company in the sample, the company's 10-K was located and an examination of the financial statements and the notes to the financial statements was done. The notes to the financial statements are where companies disclose the information about the decisions and accounting policies used to create the financial statements. Often, the companies identified

whether or not they used fair value accounting in the first note to the financial statements. In addition, there was often a separate note dedicated to fair value accounting policies adopted by the companies. The examination of the financial statements focused on if the company uses fair value accounting, if the fair value option has been elected by the company for any of its assets and liabilities, what assets and liabilities fair value measurements have applied to, what level in the fair value hierarchy established by SFAS No. 157 the fair value assets and liabilities fall into, and if there has been any material impact on the company's financial statements as a result of adopting fair value measurements.

### **Research Results**

The results of this research were surprising considering the magnitude of the fair value accounting debate. Every company looked at used the fair value hierarchy established in SFAS No. 157, which is not surprising because companies were required to start applying it to all fiscal years beginning after November, 15, 2007, with optional early adoption available. The majority of the companies in the sample began applying the hierarchy to financial assets and liabilities that are recognized or disclosed at fair value on a recurring basis in their 2008 fiscal years. A year later, they applied the hierarchy to nonfinancial assets and liabilities that are recognized or disclosed at fair value on a nonrecurring basis, as permitted by SFAS No. 157.

The majority of companies in the sample use the fair value hierarchy to measure financial assets and liabilities as well as nonrecurring measurements for nonfinancial assets and liabilities. These financial assets and liabilities include derivative financial instruments, such as foreign exchange contracts and interest rate swaps, marketable securities, and short-term investments, as well as the plan assets for the employee benefit plan at each company. The nonfinancial assets and liabilities recognized and disclosed at fair value include impairments on long-term assets.



Each company's notes regarding the application of the fair value hierarchy must include disclosures explaining which level of inputs were used in the measurement of fair value for each type of asset or liability. Many used tables like the one below from Gilead Sciences, Inc, which lists the assets and liabilities being measured at fair value and categorizes them by the level in the hierarchy that the inputs used in the measurement fall into.

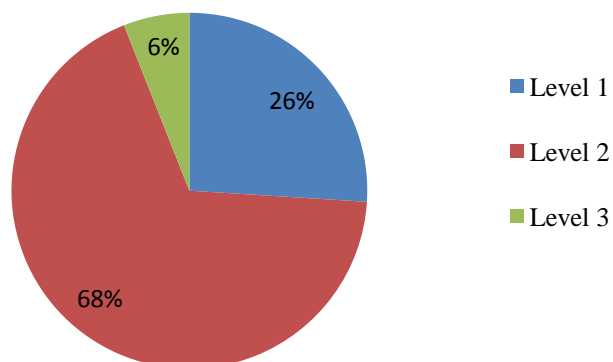
	December 31, 2009			
	Level 1	Level 2	Level 3	Total
<b>Assets:</b>				
Debt securities:				
U.S. treasury securities	\$ 289,790	\$ —	\$ —	\$ 289,790
U.S. government sponsored entity debt securities	—	877,638	—	877,638
Municipal debt securities	—	433,474	—	433,474
Corporate debt securities	—	783,282	—	783,282
Residential mortgage-backed securities	—	112,972	—	112,972
Student loan-backed securities	—	—	104,823	104,823
Other debt securities	—	74,297	839	75,136
<b>Total debt securities</b>	<b>289,790</b>	<b>2,281,663</b>	<b>105,662</b>	<b>2,677,115</b>
Equity securities	3,470	—	—	3,470
Derivatives	—	26,198	—	26,198
	<u>\$ 293,260</u>	<u>\$ 2,307,861</u>	<u>\$ 105,662</u>	<u>\$ 2,706,783</u>
<b>Liabilities:</b>				
Derivatives	\$ —	\$ 47,688	\$ —	\$ 47,688

**Table 1: Adapted from Gilead Sciences, Inc 10-K, 2010, p. 92.**

The majority of companies examined, including Gilead Sciences, Inc, had more Level 2 assets and liabilities than Level 1 or Level 3 assets and liabilities, in terms of dollar amounts measured. In order to determine the most highly utilized level for each company, the dollar amounts of fair value assets and liabilities was added up for each hierarchy level. The level with the highest dollar value for each company was noted and the following comparison resulted. Of the sample, 34 companies, 68%, had more dollars of Level 2 assets and liabilities than the other levels in the hierarchy. Level 1 inputs were used to measure more dollars of assets and liabilities than Level 2 or Level 3 inputs by 13 of the 50 companies, 26%, in the sample. Three companies, 6%, had more assets and liabilities in terms of dollar value measured using Level 3 inputs than using inputs from the other levels. The chart below compares the level in the fair value hierarchy

that had the highest dollar value for each company's assets and liabilities measured at fair value for the companies in the sample.

**Hierarchy Levels for Assets and Liabilities based  
on Dollar Value**



The use of Level 2 inputs over the other levels is logical. Usually, it is difficult to find assets and liabilities that are identical to the assets and liabilities a company is valuing at fair value, but there are many assets and liabilities that are similar to the fair value assets and liabilities of a company. Therefore, it makes sense that Level 2 inputs are more highly used than Level 1 inputs. Because there are often a lot of similar assets and liabilities in the markets, the use of Level 3 inputs is typically not needed.

The above graph includes both assets and liabilities in the comparison, so the amounts of fair value assets and the amounts of liabilities for each hierarchy level were also compared separately. The dollar values of assets for each level of the hierarchy for each company in the sample were totaled using the fair value tables from the 10-Ks, as shown in the following table.

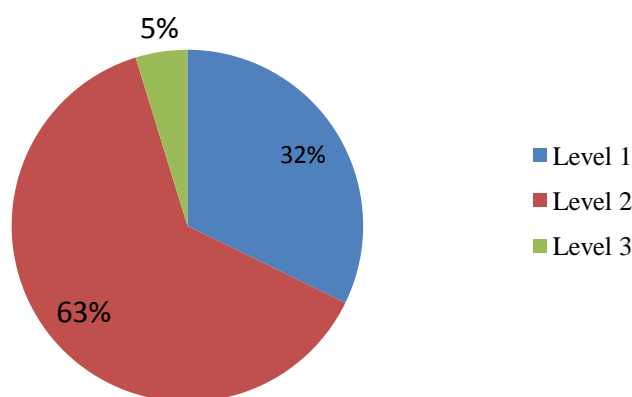
	December 31, 2009			
	Level 1	Level 2	Level 3	Total
<b>Assets:</b>				
Debt securities:				
U.S. treasury securities	\$ 289,790	\$ —	\$ —	\$ 289,790
U.S. government sponsored entity debt securities	—	877,638	—	877,638
Municipal debt securities	—	433,474	—	433,474
Corporate debt securities	—	783,282	—	783,282
Residential mortgage-backed securities	—	112,972	—	112,972
Student loan-backed securities	—	—	104,823	104,823
Other debt securities	—	74,297	839	75,136
<b>Total debt securities</b>	<b>289,790</b>	<b>2,281,663</b>	<b>105,662</b>	<b>2,677,115</b>
Equity securities	3,470	—	—	3,470
Derivatives	—	26,198	—	26,198
	<b>\$ 293,260</b>	<b>\$ 2,307,861</b>	<b>\$ 105,662</b>	<b>\$ 2,706,783</b>
<b>Liabilities:</b>				
Derivatives	\$ —	\$ 47,688	\$ —	\$ 47,688

Table 2: Adapted from Gilead Sciences, Inc 10-K, 2010, p. 92.

The amounts for each hierarchy level for each company were entered into an Excel spreadsheet.

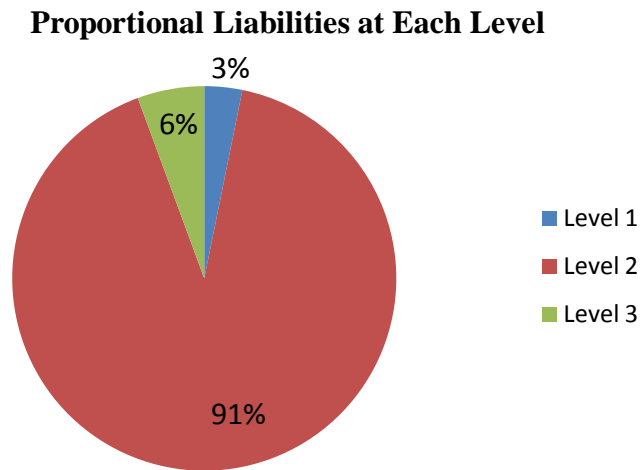
The Level 1, 2, and 3 assets were totaled separately: \$84,854,900, \$165,910,700, and \$12,515,500, respectively. These amounts were divided by the total amount of assets valued at fair value, \$263,281,100, to find the proportionate amounts for assets measured using Level 1, 2, and 3 inputs. As the following graph shows, out of the total fair value assets, 32% were measured using Level 1 inputs, 63% using Level 2 inputs, and 5% using Level 3 inputs, proportionally.

**Proportional Assets at Each Level**



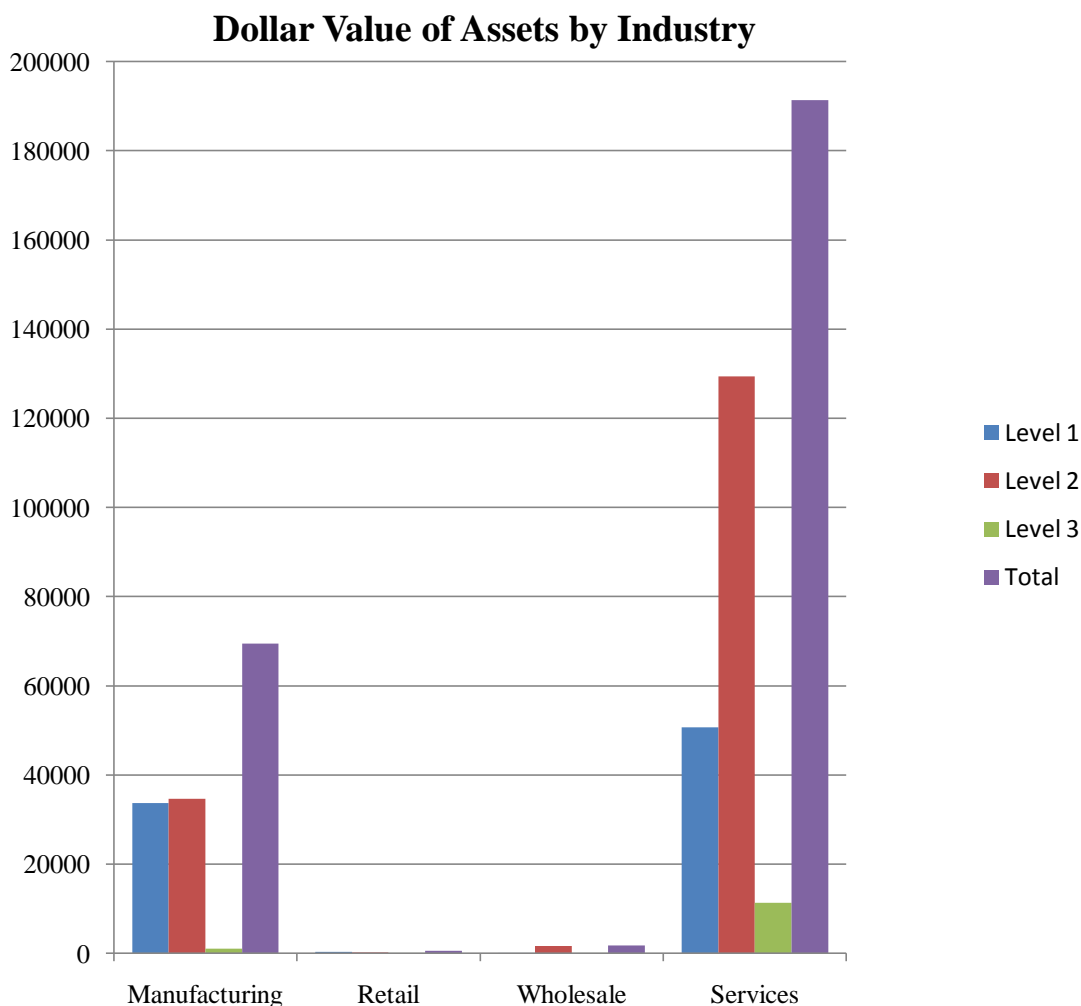
The same procedure was followed for fair value liabilities. The Level 1, 2, and 3 liabilities added to \$947,900, \$27,183,300, and \$1,675,200, respectively and \$29,806,400 in

total. Proportionally, 3% of the total fair value liabilities were measured using Level 1 inputs, 91% using Level 2 inputs, and 6% using Level 3 inputs, as shown in the graph below.



These three graphs show that Level 2 inputs are by far the most frequently used measurement inputs. For assets, Level 1 inputs are the next highest inputs and Level 3 inputs are not frequently used, by comparison. This is expected because there are many fair value assets that have markets for identical assets, such as shares of stock. Therefore, Level 3 inputs are not necessary for as many of the measurements. For liabilities, Level 3 inputs are used more than Level 1 inputs. This also makes sense because there are not many liabilities with identical terms and conditions as other liabilities.

While the majority of companies used Level 2 inputs to measure many of their fair value assets and liabilities, they also used the other levels in the hierarchy to value other assets and liabilities. Gilead Sciences, Inc is an example of a company with different assets valued with all the different levels of the hierarchy. On the other hand, some companies only used one or two of the three levels to measure their assets and liabilities. These differences shown in the graphs above between the levels used by each company are the result of each company being in a different industry with assets and liabilities that have different uses, markets, and values.

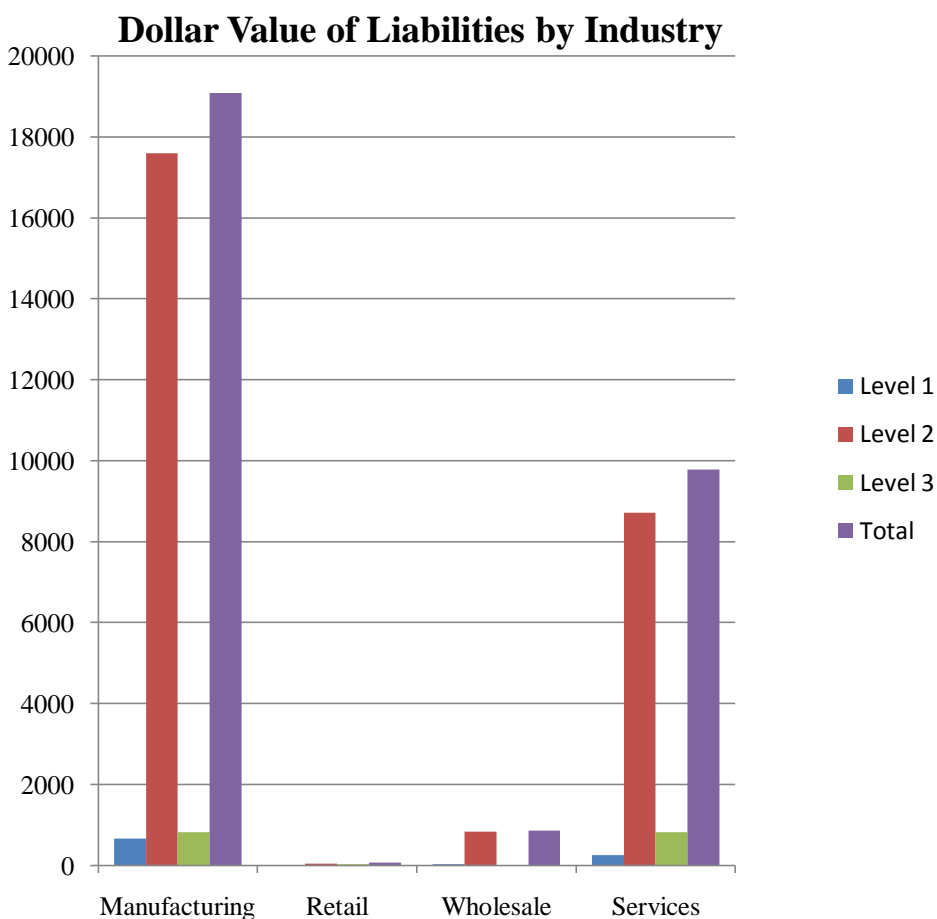


<b>Data</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
<b>Manufacturing</b>	\$33,714,900	\$34,636,700	\$1,112,500	\$69,464,100
<b>Retail</b>	\$336,000	\$218,000	\$50,000	\$604,000
<b>Wholesale</b>	\$121,000	\$1,699,000	\$2,000	\$1,822,000
<b>Services</b>	\$50,683,000	\$129,357,000	\$11,351,000	\$191,391,000

The above graph and table show the fair value asset dollar values for the assets valued at fair value for four general industries that make up the sample: manufacturing, retail, wholesale, and services. While all industries have assets valued using each level of inputs, Level 2 inputs are the most frequently used, except for in the retail industry. Level 3 inputs are the least used out of the three levels. The service industry includes the financial institutions of the sample and

has the highest amount of assets valued at fair value. This is expected because those companies would logically have the most financial assets out of all the companies in the sample.

The same information and graphs were done for the liabilities valued at fair value, as follows.



<b>Data</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
<b>Manufacturing</b>	\$664,900	\$17,598,300	\$821,200	\$19,084,400
<b>Retail</b>	\$0	\$40,000	\$33,000	\$73,000
<b>Wholesale</b>	\$27,000	\$838,000	\$0	\$865,000
<b>Services</b>	\$256,000	\$8,707,000	\$821,000	\$9,784,000

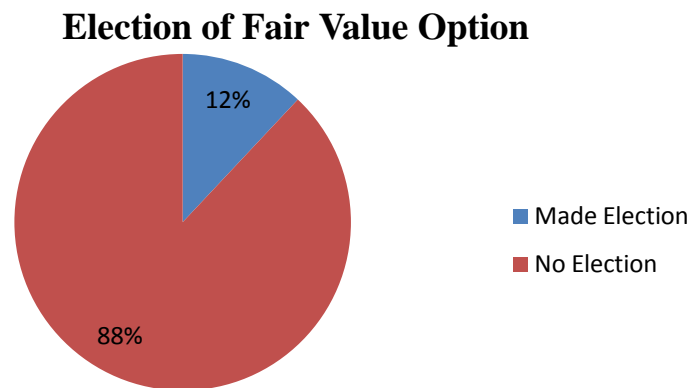
Like the fair value assets, Level 2 inputs were the most used inputs for measuring fair value liabilities. Unlike with assets, Level 3 inputs were used more frequently than Level 1

inputs. The manufacturing industry had the highest dollar value of fair value liabilities, which makes sense because that industry borrows more money to finance larger capital projects.

The importance of all these differences in hierarchy level usage is that while the majority of companies did use Level 3 inputs to measure some of their assets and liabilities, only 6% of the sample had the highest total dollar value of assets and liabilities out of the three hierarchy levels in Level 3. In addition, for most companies that had the highest dollar value associated with Level 1 or Level 2 assets and liabilities, the Level 3 assets and liabilities had the lowest dollar value out of the three levels. This shows that, while it is important to resolve the problems associated with Level 3 measurements soon because most companies use Level 3 measurements, the problem with measurement estimates may not be as bad as opponents of fair value claim it is. This is because observable inputs are used more than unobservable inputs, in terms of dollar amounts measured. Another important detail mentioned in the financial statement notes of the companies in the sample is that there were no material changes in the financial statements due to the application of fair value measurements when implemented. In addition, none of the companies' notes to the financial statements identified any material gains or losses specifically caused by fair value measurements in the fiscal year the financial statements were created to summarize.

In addition to examining the hierarchy level usage, a comparison of how many companies elected the fair value option was completed. Only six out of the 50 companies, 12%, in the sample had elected the fair value option for some of their assets and liabilities. These companies were Abbott Laboratories, Baxter International Inc., Becton, Dickinson and Company, Citigroup Inc., JPMorgan Chase & Co., and Principal Financial Group, Inc. If this is a truly representative sample and these results are projected for the population, 60 of the 500 companies in the Fortune

500 listing have elected the fair value option. This is not very many companies, considering the fact that FASB hoped SFAS No. 159 would be a stepping stone toward the long-term goal of measuring all financial instruments at fair value and the option has been available for election since 2008. In order to reach that goal, FASB may issue a standard requiring the expansion of fair value to other assets and liabilities, rather than let companies have a choice in the application of fair value.



### Research Conclusions

Overall, the financial statements of these 50 Fortune 500 companies showed how fair value has been applied and how it has affected the companies. The fair value hierarchy was used in all of the financial statements as required for financial instruments and certain nonfinancial instruments. While the different levels of the hierarchy may have caused problems for companies during the credit crisis, especially Level 3, the overall dollar value of assets and liabilities measured using Level 3 inputs is relatively low compared to the dollar value of assets and liabilities measured with Level 1 and 2 inputs. This puts the debate over fair value, especially regarding Level 3 inputs, into perspective by showing that while a change is needed to make Level 3 measurements easier to understand and more relevant, it may not be as urgent or dire of a situation as opponents of fair value accounting make it sound. In addition, many



companies state that the changes in the fair value of their assets and liabilities have not had a material impact on the financial statements for the most recent fiscal year. Another important finding of the examination of the companies' financial statements is that very few have elected SFAS No. 159 for eligible assets and liabilities. If FASB wants to continue on the path toward measuring all assets and liabilities at fair value in the future, something will have to be done to get more companies to measure additional assets and liabilities at fair value besides giving them the option to use fair value measurement.

### **Conclusion**

While there are some significant flaws in the current fair value accounting practice, fair value accounting is the most appropriate and relevant accounting measurement for assets and liabilities based on current investor and financial user needs. In the current times, when investors and other users of the financial statements are hesitant to trust large corporations and the financial statements, it is important that the statements reflect the realities of the current economic situation for each company. Users of the financial statements still remember the big frauds, like Enron, that occurred in the early 2000's. This can affect how much investors trust the financial statements released by corporations and audited by CPA firms. Because of this, it is important that the accounting practices allow investors to understand the underlying judgments being made and how the resulting decisions affect the numbers shown on the financial statements. Overall, it is a good thing that FASB has continued to expand the required disclosures relating to fair value measurements.

In addition, the recent credit crisis caused a great deal of problems for many companies as discussed earlier, which have led to investors being more cautious than normal. Even though fair value can be pro-cyclical and can result in a number of problems for companies and

investors, the relevance and transparency provided by fair value accounting compensates for these instabilities in financial statements. Critics of fair value accounting who believe that fair value accounting is to blame for the recent credit crisis are not necessarily correct. Fair value accounting was not one of the primary causes of the crisis, though it did contribute to how severe the crisis was. The issuance of SFAS No. 157 and SFAS No. 159 came at a bad time, but it showed the weaknesses that exist in those statements. Other weaknesses that need to be addressed are the inconsistencies and confusion related to Level 3 inputs. FASB has already helped with these problems with the issuance of FSP No. FAS 157-4: 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, but additional guidance may be necessary. Going forward, FASB must continue to address the problems with fair value accounting in order for it to truly be the correct choice for asset and liability measurement accounting policy. But based on the amendments and changes FASB has made to fair value accounting in the past three years since the issuance of these two statements, fair value accounting weaknesses will be addressed and there will be further expansion of fair value accounting that will benefit companies and users of the financial statements in the long run.

The other part of fair value accounting practices that must be addressed in the future is the fair value option established by SFAS No. 159. The fair value option will most likely prove to be counterproductive in the long run. The fair value option is a good idea in theory because it allows companies to have more transparent financial statements if they choose and can simplify some of the work and valuations that the companies must do in some circumstances. But, in practice, the fair value option will most likely lead to more inconsistencies and confusion about the financial statements. With some companies measuring certain assets and liabilities at

historical cost and others using fair value, the financial statements will be hard for users to compare and evaluate without extensive knowledge and expertise dealing with accounting practices. In addition, not many companies in the research sample had elected the option, which means that the expansion of fair value accounting that was supposed to result from the option is not materializing as expected. The fair value option should become a required measurement within the next decade, so that the cost to users of the financial statements and the inconsistencies are limited to a short period of time.

Based on the research conducted for this thesis paper, fair value accounting should continue to be used and expanded in the U.S. After becoming familiar with the recent fair value accounting statements issued by FASB, looking at each side of the fair value debate and weighing the arguments of each side, and examining actual financial statements to see the affect fair value accounting has had on companies, the conclusion is reached that, although fair value accounting may not be the easiest or most convenient measurement for companies to use, it is the most relevant measurement basis to apply to the valuation of assets and liabilities. There are many weaknesses that must be addressed if fair value is to become the prominent measurement basis for financial assets and liabilities in U.S. accounting, but FASB has been working to fix some of the problems and will continue to work toward solutions that will be beneficial to companies and the users of the financial statements. After examining the financial statements of different companies, it appears that while fair value accounting has an influence on the earnings reported by the companies, the influence has not been material to the financial statements.

But, the research in this thesis paper was limited to publicly available information and general level financial statement information, so it is not known how many issues the companies researched have actually had with generating the fair value measurements and following the fair

value hierarchy. Only publicly-held companies were included in the research, so it is important to look into the effects of fair value accounting on private companies going forward. Private, smaller companies may be affected differently by the fair value requirements because those companies may not have the resources necessary to easily comply with the requirements. In addition, only the most recent financial statements released by those companies were examined. As a result, the financial statements that would have been more heavily affected by the credit crisis were excluded from this research. Looking forward, more research needs to be done to figure out how best to clarify fair value accounting requirements in order to make the expansion of fair value accounting as efficient and effective as possible. If amendments continue to be made to fair value accounting and new statements are issued in order to provide more guidance about the measurement practices used and provide more transparency through additional disclosures, the major problems experienced in the credit crisis can be reduced, if not eliminated, before the same problems are experienced in the next economic downturn.

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