

## IMPROVING THE INFORMATION IN FINANCIAL STATEMENTS

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### Abstract

*Society suffers a loss of efficiency when the information upon which market participants rely is insufficient or inaccurate. These real world phenomena have been a major source of our entire financial crisis over the last several years and there is little reason to believe that they will not re-emerge in the future. This paper examines the state of information accuracy in today's financial markets; why methods used in the past may not be effective and what might be done to counteract this situation. A significant source of inaccurate information rests upon three basic economic principles: (1) principal agent theory, (2) moral hazard and (3) end game phenomenon. An analysis of recent financial situations clearly shows that there are limits to a laissez faire solution. Government intervention, in punishing deliberate misinformation and assigning risk, is necessary. An analysis of the situation also implicitly asserts that there is most likely no single best solution to the problems related to the quality of financial information; rather, there are a number of differing circumstances which require customized solutions. It is the diligence with which regulators are monitored that will determine the magnitude of the losses in future financial market crises.*

**Key Words:** Accounting information, market value, stock price, economic theories

### 1. Introduction

Virtually all mainstream economists have found that where there is vigorous competition among many well informed market participants who have equal knowledge of the underlying asset and all alternatives, the market price would reflect all information which is assumed non-asymmetric, reflecting an advantage to neither buyers nor sellers. Perfectly competitive markets with low transactions costs drive the market price to an equilibrium that reflects the best information available. Thus, while we do not have "perfect" information and conditions, the next best thing is a competitive environment with symmetric information driving to a market equilibrium that is near the true, but forever unknown, intrinsic value. Most likely these changes occur when new information is acquired which, in turn, affects individual's intrinsic value of the security. This translates, via dollar voting, to changing market prices. Put simply, the actual market price mirrors the consensus of different intrinsic value estimates.

### 2. Intrinsic Value

People sometimes refer to the intrinsic value of a good, service or financial asset. Certainly, upon reflection, all agree that there is no such thing as *the* intrinsic value of an item but rather each of us has our own specific and subjective intrinsic value. Ask a group of people the intrinsic value of a work of art, a sports car or a ticket to the opera and you will get wildly differing responses. While it may be temporarily entertaining to argue why one valuation must surely be more accurate than another, this discussion has absolutely no value when it comes to allocating scarce resources. What is needed for the allocation task is the concept of social value or value in exchange. When all buyers and sellers bring their subjective value judgments to the market, market value or value in exchange is determined. It matters little to the allocation of resources whether people ought to prefer art or opera to sports cars. This same concept applies to financial instruments. Each buyer and seller has a subjective appraisal of the value of a share of a particular firm's stock. Given attitudes about risk, the duration of the investment, and alternative investments available, many buyers and sellers will differ as to the intrinsic value of a stock. Likewise, financial markets do not react to intrinsic value but to market value and it is the interaction of all market participants that determines value in an exchange. Prices of securities move in response to random fluctuation in the region of internal value. In financial markets, more than almost all others, the dance of exchange is easy to follow. Traditional economic analysis posits that decision makers stoically evaluate benefits and costs and take the action that is consistent with optimizing personal welfare.

Cognitive or behavioral economists suggest that emotions sometimes interfere with optimization; thus allowing market freedom which may result in less than the best possible allocative outcome.

### **3. Internal Value**

Market participants measure intrinsic value based upon information. The primary source of the information needed to evaluate a firm's stock is the firm itself and the financial information it discloses. In a perfect world, the firm would accurately supply all pertinent information to all market participants on an equal basis. In such a textbook world, the firm would take no particular interest in how buyers and sellers use this information to formulate either their intrinsic evaluations or the resulting competitive market equilibrium price of the stock. There are two stages in this determination process and in each there is an entity with a comparative advantage. The first stage is the provision of pertinent information regarding the profitability of the firm. Certainly the firm itself, as holder of this inside information, has a comparative advantage in this activity. The way the firm portrays itself regarding profitability is called the internal value. The second stage is the blending of many and diverse intrinsic values into a single market value which approximates the true intrinsic value. The perfectly competitive market has a comparative advantage in this activity. Ideally, internal value information would be honest, accurate, complete up to the efficient level and equally available to all. However, we do not live and make allocation decisions in such a perfect world.

### **4. Efficient Transfer of (Inadequate) Financial Information**

The availability of powerful personal computers, communications constantly available through cell phones and massive data sources and easy access to markets would seem to foster a nearly perfect competitive world. Yet, we have suffered some of the most significant financial crises in eighty years, due in part to this efficient transfer of presumably valid or accurate financial information. The efficiency deludes one into believing the precision of the information and forgetting to evaluate the accuracy. (It is common for an experimental scientist with our modern instruments to be able measure a quality to four or five decimal places of precision but the accuracy may be only 20-30 %.) The following are examples of difficulties with the information transfer.

- **Too Early to Know**  
There are startups that lose massive amounts of money in their first years of existence because the market does not yet fully appreciate the value of the new product or service which may explode into success in the future. In such a case, there is initially too little accurate information for proper share evaluation.
- **Peerless Comparisons**  
Firms on the leading edge of a new business model may have no reasonable comparisons. This is a double edged sword in that it may be beneficial in terms of reduced competition but makes the evaluation by analogy difficult if not impossible.
- **Opaque Private Companies**  
Successful, innovative companies, often begun as proprietorships, are sometimes difficult to evaluate either because of completely private information or a unique market niche.
- **Technological Surprise**  
A company that is successful in the high-tech arena may appear to be secure until the unsuspected emergence of an even newer and superior technological development. How many shattered companies have Microsoft and Oracle left in their wakes?
- **Analyst's Economy of Scale**  
Even when companies provide full and accurate data to the public, it does not mean that all investors have equal access to information. Might there be economies of scale with regard to mining and analyzing such information? In general, few investors have access to the same quality and quantity of information as that enjoyed by mutual funds or investment banks.

### **5. Need for Improving the Usefulness of Financial Reporting**

The synopsis of the foregoing arguments is that efficient decisions require a perfectly competitive set of financial markets and such markets can be defined and supported by certain structures and policies. The following statements attempt to motivate an investigation into the nature of an improved financial reporting environment.

- Dynamic efficiency requires that relevant information be provided to the public and adapted to differing conditions. This means that the audit not only confirms compliance with GAAP, but should also provide a forensic like analysis of whether or not the information is reasonable and represents a “true and fair view”. Can it be said that this is currently the case or are we, out of habit, reporting that which does not address the current needs of financial market participants?
- Formerly, it was implicitly assumed that the public was singular. Today and into the future, we must recognize that there is not one “public” but many differentiated markets with different needs regarding information.
- Decades ago, we decided that firms providing inside information regarding the purity and efficacy of food and drugs could not be left to producers alone. These markets were plagued by asymmetric information, the principal/agent concern and moral hazard. That is the same maladies now visiting financial markets. Some information is not strictly a private good and there may be a need for more than one information source. Private sector auditing firms were expected to fulfill this role; but, the record has been less than comforting in the recent past.
- The legal means of dealing with either knowingly misleading information or information provided with less than due diligence have proven to be insufficient. Adverse economic externalities can be addressed in several ways; but, social control sometimes makes government action avoidable. This is exemplified by growth in communities. Initially, when a few families move to a new community, they are on their best behavior. There is little litter; landscaping is kept up and very little vandalism occurs. Because all families know each other well, there develops almost a sense of family and others are respected. Once the population gets to the level of anonymity, social deportment breaks down. The norms of clear communication and honesty (which might have been sufficient in a bygone age) will need other supports in an age of selfish anonymity.
- Firms are required to be truthful in reporting both past and current information. Often this requires precision of data but fails to demand of management a clearly provided assessment of the corporate health. A more important question for financial markets is who should be responsible for accurately anticipating future events? Certainly firms who have a poor record regarding accurate reporting should be identified as such and possibly sanctioned. This can be extended to the future so that firms are expected to keep a set of performance statistics on how reliable they have been regarding short and long run anticipations.
- Just as it is possible to have too little information, it is also possible to have so much information that the unnecessary details cover or distract from the vital information. The Sarbanes-Oxley (SOX) legislation is probably the epitome of this phenomenon. While SOX became a growth industry and a corporate nightmare at the same time, there is little evidence that information accuracy and ethical behavior have increased as a result of SOX.
- Accounting information may simply reflect the results of decisions or it can influence decisions (sometimes in ways not intended). Consider the impact of FASB 106 “Other Post Retirement Benefits” which requires companies to change from pay-as-you-go basis to an accrual basis for health care and other benefits. This change in accounting caused an increase in expenses and consequently a large number of companies stopped providing such benefits to their employees – not the intended impact. The production of financial information can have spillover costs and the resultant inefficiency.
- Because a variety of parties are interested in and affected by the development of accounting standards, such standards are as much a product of political action as they are of careful logic or empirical findings. Many accounting standards have significant economic consequences and the best way to influence the formulation of accounting standards is to attempt to influence the standard setters (Horngren, 1973, 61, Schroeder, et al, 15).

### ***6. Cost/Benefit Considerations of Potential Improvements***

A significant source of inaccurate information or even misleading information rests upon three basic economic principles: the (1) principal agent theory, (2) moral hazard, and (3) the end game phenomenon. Obviously the heads of Enron, WorldCom, Fannie Mae and Freddie Mac were not considering the best interests of their clients, the principals for whom they were agents. The problems were exacerbated by moral hazard when the agents thought that they were immune from the consequences to the principles.

If poorly secured loans are granted but can be sold to others under disguise in equity markets as Commercial Mortgage Backed Securities, then there is little fear of retribution to the seller. Fannie and Freddie, institutions with concerns other than providing accurate internal information, would absorb good and bad securities alike. This dangerous situation is put into overdrive under the end game problem. When a seller depends upon repeat sales from a buyer, that seller attempts to build up credibility or goodwill with the buyer in hope of future trade opportunities. On the other hand, when a seller is about to close shop, then on the last exchange the seller may employ sharp or unethical business tactics because there is no future business to be lost. This is the triumph of the short run reward over long run gain.

There are several possible legal, regulatory or tax solutions to improving financial information. Accurate, unbiased, equally available and predictive information from the company is valuable but is unfortunately scarce. Perfect information would, theoretically, be the preferred solution but would be complex, costly and highly unlikely. Because perfect information is scarce, society can have too little or too much good information. This is an application of the “optimum allocation” rule in economics that states we ought to undertake any activity up to, but only up to, the point where marginal benefits equals marginal costs. As a social policy we would never think that we could construct reasonable highways that results in absolutely no injury or that we could fashion a law enforcement system that prevents all serious crime or that we should expect to have a pristine environment. The same is true of financial information. Our goal is to ask what policies and procedures might increase the marginal cost of providing inaccurate information or increase the marginal benefit of accurate information.

The nature of many financial executives pay packages with golden parachutes tends to encourage the short run over the long run and political allegiances shelter regulators from accountability. In the case of “golden Parachutes”, laws could be crafted that require a certain amount of executive pay to be held in an escrow account for a time period that is commensurate with the level of compensation. For example, if the CEO of Fannie Mae has an incentive program resulting in \$100M bonus, then perhaps 90% of it should be held for possibly 10 years as collateral against the possibility of damage emanating from either false information or malfeasance, while leading the organization. In contrast, a bonus of \$5M might only require a waiting period of 5 years under the belief that larger bonuses encourage more misbehavior and thus larger indemnification. Since the supply of top level CEO talent is said to be very inelastic, most executive pay is largely economic rent and therefore, ‘taxing’ it through required collateral escrow would result in little economic misallocation. Such a legal change results in relatively large social value and relatively modest social cost.

In order to deal with these transgressions against the three basic economic principles, one needs to ask what policies and procedures might increase the marginal cost of providing inaccurate information or increase the marginal benefit of accurate information or what penalties would be appropriate. The most obvious approach to these phenomena is to extend the statute of limitations for financial malfeasance. Alternative methods include penalties for transgressions or taxation. Financial market misinformation could be treated in a way similar to society’s treatment of pollution. That is, it is simply prohibited under law with penalties for transgressions. The problem with making an activity illegal is that this then requires policing which is often expensive yet incomplete. The Justice Department, the SEC, state regulatory agencies have established a track record in regulation. Most often regulatory agencies address a problem well after it has begun. Bernie Madoff exploited his clients for more than seventeen years and even he could not believe how long it took for justice to arrive. He also had political cover as a member of the Board of Governors of the NASD while members of his family held other positions on oversight organizations. Conflict of interest needs to be recognized in a more open and transparent manner.

The record is not any more impressive with Enron, WorldCom, GE or Duke Energy. In the 2002 there were 21 major investigations of accounting and securities fraud. Most of these cases had histories that went back a decade or more. Regulation is satisfying in its directness but it is neither cheap nor swift. A more effective formal legal process would require financial fraud experts both as investigators, prosecutors and judges. This would require a massive investment in new quantities of specialized human capital. Even when the high cost is incurred, there is little reason to believe that the problem would be resolved. The usual reaction to firms facing judicial consequences is to move outside the jurisdiction of the legal system. Thus, firms with a desire to promulgate misinformation would find this unprofitable in the U. S. and might simply move their information office to Canada or Grenada. There would be no cost to ‘importing’ the misinformation and there would be no one to domestically investigate or prosecute.

Alternatively, the cost and complexity of prosecuting an accounting fraud case often results in plea agreements and penalty reductions. In retrospect it is somewhat perplexing that so many financial miscreants simply waited in plain sight to be arrested. One may think that Michael Milkin is not bright enough to run away with his ill gotten junk bond gains. However, he was summa cum laude at Berkeley and has a Wharton MBA. He served a 22 month sentence at a Club Fed prison, paid \$1B in fines and restitution and left prison with a net worth of roughly \$1.2B which translates into over \$63,200 per hour for his incarceration. The alternative and better explanation is that Milkin did not much fear the government or the consequences of being caught. Put differently, it appeared that he preferred the jail pay to spending his life in a third world country. Simply passing regulatory legislation will only reduce onerous behavior minimally. The costs increase with the level of effort thus stopping those most capable of fraud and other financial shenanigans is going to be very high.

Another approach is based on the core concept of Pigovian taxes, i.e., taxing any activity discourages that activity. If the tax is correctly calibrated, the private market can be brought to its efficient equilibrium. Such taxes have been proposed to handle environmental problems such as pollution. Consider a firm that is despoiling a river by dumping waste in it. This theory would advocate taxing or fining the firm. Economists appreciate the novelty of this suggestion; but, ecologically oriented people hate it since it appears to sanction bad behavior. That is, it does not clean up the river but simply allows the firm to pay a toll for environmentally bad behavior. However, as already addressed, prohibition requires policing and this is both costly and sometimes highly ineffective. Pigou pointed out that the tax revenue raised under his scheme could be used for a number of things.

- To pay for the government to clean the pollution before it reaches the river.
- To pay the town to clean the river when the pollution reaches it
- To allow the town to buy something else that its citizens value more than the clean river. This might be a medical clinic or enhanced school facility.

Applying the Pigovian principle to misinformation, the government could place a small information tax on goods and services and establish a counter misinformation fund. The tax could either be the same for every firm or industry or there could be a differential in cases where misinformation is more likely. This tax could be used for the following purposes.

- The government could fund its own agency to detect and punish misinformation
- The funds could support the judicial alternative to pay for training of forensic accountants and train prosecutors and judges salaries
- Distributed to citizens in the form of an information voucher with which they could buy other private sources of information with an established reputation for superior accuracy.
- Provide cash payments to citizens for use on items more important to them than more accurate financial information.

## **7. Conclusion**

It is fundamental that for market to perform efficiently, there are two preconditions. There must be: (1) competition and (2) adequate information. The second condition is especially critical in financial markets. Given this information need, additional questions arise:

- How much information
- With what degree of accuracy
- Provided by whom
- In what legal environment
- In what areas would we expect to encounter the most problems
- Is a legal, regulatory or tax solution best suited to this situation

The analysis clearly shows that there are limits to a laissez faire solution. Government intervention in punishing deliberate misinformation and assigning risk is necessary. According to Arthur Wyatt (2005), the society and profession paid a high price for the accounting profession's failure to protect the investors, creditors and other users of financial information. The forces at work were numerous and complex. Different investigators would place the blame on a variety of phenomenon that created this environment. These societal flaws are not new; but, the profession's ability to control them now appears to be severely inadequate. It appears evident that the economic damage which in part can be traced back to insufficient accounting information warrants a very serious look at the rules and standards that audits must meet.

There appears to be a reasonable argument for incorporating more of the “forensic like” activities that accountants must use when there is suspected fraud into the standard expectations and procedures that apply to an independent audit. This, along with increased attention or transparency to including management’s best judgment of the economic health, including the “true and fair” value of the company can help. Analysis also implicitly asserts there is most likely no single best solution to all financial information quality problems. Rather, there are a number of differing circumstances which require customized solutions. The weak link in almost all plans that include a government bureaucracy is the difficulty in avoiding both the principal agent and moral hazard problems. These real world phenomena have been the source of most of our financial crisis over the last several generations and there is little reason to believe that they will not re-emerge in the future. It is the diligence with which regulators are monitored that will determine the magnitude of the losses in future financial market crises.

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