Financial accounting is a crucial aspect in prices over time; yet because price shifts are common, it is contradictory in the long run such as a shift from a balance sheet to an income statement back to balance sheet emphasis in financial reporting. Yet the profession as a whole has not made much headway in admitting that our double entry system is not capable of maintaining a perfect balance sheet and income statement at the same time. Consequently little effort has been made to address basic epistemological questions ‘Why do these flaws and paradoxes exist?’ or ‘What is the inherent underlying cause or nature of these paradoxes?’ Specifically, ‘Why is it so difficult to prepare a set of sensible, useful financial statements that do not contain counter-intuitive and paradoxical results?’ While some attention has been paid to the problems arising from lack of agreement about objectives and users misinterpretation, very little attention has been paid to the interaction between the users and the data or the possibility that balance sheet/income statement contradictions are a reflection of the underlying nature of the phenomena we are trying to measure.

With the IASB and FASB on a trajectory toward a full fair value model, some accounting literature and reports from the business press have begun to reflect on why the fair value model is no more likely to be completely satisfactory than its historical cost predecessor model. (Benston 2006; Benston 2008; Katz & Reason 2008; Kvifte 2008; Leibler 2003; Mavin 2009) Still, this proposal suggests we should go even further in the direction of exploring the why behind the paradoxes in both the historical cost/stewardship model and the fair value/market oriented accounting model. For this we will have to look beyond the mainstream accounting literature for clues. The remainder of this proposal first briefly reminds of us of known problems or paradoxes in accounting which have been identified in the academic literature even if they are ignored in practice. The proposal then suggests some clues in the fields of philosophy, physics, and game theory which might serve as launching points for the accounting profession to gain more insight into the nature of the paradoxes and contradictions which seem inherent in many phases of financial accounting practice. The proposal concludes with thoughts on the prospects for this line of inquiry to complement main stream and public interest research paradigms.

Examples of Paradox in Financial Accounting

One of the basic problems in financial accounting practice is that accountants have not devised a satisfactory method for dealing with price changes. There would be no difference in historical cost and fair value accounting were it not for changes in prices over time; yet because price shifts are common, it would seem that dealing with them effectively ought to be a professional priority. While accountants experimented with various forms of price adjustments to deal with the severe inflation following World War I, these models were promptly abandoned as soon as inflation moderated. (Middleditch 1918; Paton 1918 & 1920; Sweeney 1927 & 1928; Schmidt 1931; Daines 1929; Wasserman 1931) Zeff's (1976) compendium of papers on inflation accounting between 1918 and 1935 suggests a primary reason for discontinuing the models was uncertainty about the inherent nature of the recorded increases in value. It was unclear what the true nature of the ‘gains’ and ‘losses’ might be or to whom they should belong, e.g., 'could they be paid out in dividends or should they be retained in the corporate entity?”

Similarly, the price level adjustment experiment under FASB Statement No. 33 (1979) to deal with post Vietnam inflation was also scrapped by 1986 with users maintaining it was unclear how to use the supplementary information. Moore (2010) reviews the inherent conflict between the economic model of inflation in which nonmonetary assets are supposed to hold their value without economic gain or loss as contrasted to the accounting fair value model in which these are the very items for which gains and losses are recorded. Economists say it is the monetary assets that lose value under inflation, yet these are the assets most often left unadjusted in a fair value model. The historical cost model records no gains or
losses on either monetary or nonmonetary assets until they are realized, with the actual point of realization itself being a matter of some controversy in the case of asset trades. Even in a purely historical cost model, opting between FIFO and LIFO inventory methods is basically a choice between a balance sheet that makes sense from a current or near current cost perspective or an income statement that makes sense from an opportunity or replacement cost perspective.

Analytical studies by Thomas (1969) and Devine (1985) clearly demonstrated that the allocations which underlie the practice of apportioning costs between periods, departments, or other cost objects can never be done in such a way that they are truly precise, objective, and fully defensible. These conclusions have not precluded the profession from implementing highly detailed and complex allocations in the form of activity based costing; nor have they much impacted public perceptions that accounting can someone how be made ‘true and fair’. Preparing financial accounting reports forces someone to make subjective judgments about the extent to which costs impact current versus future periods; producing financial statements for the current period inherently involves predictions about future behaviors. Further, for accounting reports to have any functionality at all they must be expected to impact users’ future perceptions and behaviors thus creating a reflexive loop that creates the conditions for an inherent moral hazard in accounting.

The attempts by the FASB and IASB to move in tandem toward an asset/liability measure approach to financial reporting have been an interesting study in compromise whereby the FASB has readopted approaches that were previously abandoned because of counter-intuitive. The labeling of gains or losses on early extinguishment of debt is a case in point. The Financial Accounting Standards Board (FASB) initially recognized the counter-intuitive effect of gains from troubled liabilities in 1975 when its Statement No. 4 called for labeling gains and losses on early extinguishment of debt as extraordinary even though the transaction is neither unusual nor infrequent, the usually criteria for being designated as extraordinary. Schroeder, Clark & Cathey (2005, p. 355) attribute this turnaround from prior guidance under Accounting Principles Board (APB) Opinion No. 26 to such events as a $37.5 Million gain reported as ordinary income on the 1973 United Brands financial statements attributable to a swap of debentures with differing interest rates. Issued as part of the IASB/FASB convergence project, in Statement No. 145 (2002) the FASB indicated that gains and losses on early extinguishment of debt would revert to the APB 26 approach of not labeling these as extraordinary.

In the case of troubled debt restructurings, FASB Statement No. 15 (1977) originally held that no gain or loss is recognized when restructuring results in changes to interest rates unless the total to be collected is less than the carrying value. If a company originally contracted for a 15% return from a receivable, then dropped the rate to 2% as an accommodation to an entity in distress this would seem to be a loss, but this treated as merely a prospective income statement event with lower future interest. Failure to decrease the carrying value when the interest rate was increased to reflect deteriorating credit worthiness was criticized as allowing lending institutions to put off recognizing deteriorating receivable values. However, this reasoning did not hold on the liability side because of the counter intuitive effects of revising present values. Changing to the new discount rate when the interest rate on a liability was increasing due to deteriorating credit risk would cause a lower present value and a gain to be booked. This would in effect reward companies that were at risk of default. FASB Statement No. 114 (1993) changed the rules on the asset side to require recording losses consistent with a determination of a lower present value of the receivable. On the other hand, instruments on the liability side of the restructuring continued to ignore the most ‘gains’ from debt restructuring. Though the treatment was not consistent between the asset and liability side, failure to establish a mirror image treatment between the debtor and the creditor avoided the counter intuitive prospect of rewarding companies that have deteriorating credit positions with an increase in income.

Similar counter-intuitive effects are likely to surface under FAS159 (2007). The FASB Statement No. 159 approach (now included in the Accounting Standards Codification) allowed the fair value option for many liabilities. Like the reversals on the extraordinary vs. ordinary income classifications for gains and losses on early extinguishment of debt, in time it may become apparent once again that this new statement has the potential to allow firms to manufacture paper profits from deteriorating credit risk. Though the IASB and FASB settled on a new fair value Asset/Liability approach with their Norwalk agreement of 2002, the market implosion of 2008 and beyond has brought new scrutiny of the fair value model. A recent Congressional mandate for the Securities and Exchange Commission (SEC) to re-examine its acceptance of fair market values seems to be based on concern about the potential for fair value restatements to accelerate market declines (SEC 2008). An international study of the worldwide
financial crisis as chaired by Goldschmid & Hoogervorst (2009) suggested that fair value accounting had not really played a primary role in the market implosion, but perhaps only because many banks had not yet converted to a full fair value approach. Thus, adjusting the books for the effects of inflation continues to be a very thorny issue in accounting theory and practice.

**Clues about Paradox from Philosophy, Physics, and Game Theory**

Main stream accounting research based on capital markets and classical economics suggests that through the magic of competition the market will always converge on an efficient and objective measure of value or reality which is often simplistically assumed to be the ‘right’ price. This view is refuted by an entire body of philosophical work which focuses on the concept of non-duality. (Loy 1988) What are often assumed to be objective measures of an external phenomenon are highly colored by the psychological makeup, biases, or even the basic measurement tools of the measurer. Both philosophy and physics suggest that nothing can be objectively measured without the potential for an impact from the psychological state or the measurement tools of the measurer.

From the enlightenment movement and even before that among some Greek philosophers, Western approaches to science and philosophy have often exhibited an inherently optimistic bias, i.e., a hope that things can be made better and better. Eastern philosophical movements on the other hand tend to emphasize what Westerners might call a more skeptical view and Easterners might call a more realistic view, a view which suggests every improvement tends to bring with it some new side effect, sometimes referred to as a never ending cycle of samsara. Interdisciplinary studies between philosophers and scientists movement have uncovered many close parallels in the tentative conclusions about the nature of phenomena that have arisen from work in the field of physics and from the analytical methods of certain schools of Eastern philosophy. (Gyatso 2005; Hayward & Varela 1992; Mansfield 2008) Not unlike the economics based agency theorists, Eastern philosophers and physicists focus on phenomena existing as a nexus of relationships rather than as discrete selves. Each unit of analysis, the self in philosophy or the firm in accounting, is inherently enmeshed in its social, economic milieu. While accountants try to measure firm performance, Eastern philosophers would say that phenomena such as firms do not exist at the absolute level and therefore accounting measures do not merely reflect firm performance but the relationship to an overall economy and to the measurement tools in use.

Einstein (1934) focused on the physics of a time paradox in his theory of relativity. Other physicists have focused on the uncertainty principle or the impossibility of simultaneously deriving a perfect measurement of position and momentum. (Born 1927; DeBroglie 1953; Bohr 1958; Heisenberg, W. 1970; Beller 2001; Bernstein 2005) Accounting exhibits a time paradox as well. Marple’s statement from 1964 sounds very fresh today:

> Value is an elusive and changeable thing, as many investors discovered when they watched their paper profits disappear in the recent decline in stock prices. .. in addition to the fact that the use of current values on the balance sheet may result in reporting paper profits, the practice can be objected to because it represents recognition of potential future income. p. 73

When the market value of long term, nonmonetary assets increases this is commonly recorded as a gain even when it merely reflects a rise in prices in keeping with general inflation. Yet a gain on the balance sheet today really represents higher opportunity costs to replace the assets in the future, though this effect will only impact the income statement through gradual depreciation charges under traditional accounting practice. If illusory gains from revaluation are treated as belonging to the owner and subject to dividends, the capital of the firm will be depleted prior to replacement of the equipment. This is a serious issue often glossed over and ignored when price level gains are labeled as ‘fair value’ rather than price level changes as they are by the IASB fair value model. While nonlinear concepts of time were not easily accepted by early and mid twentieth century physicists, accountants also have had difficulty in accepting that the inability to reconcile the balance sheet and income statement approaches to financial reporting may be related to the concept that present and future are intimately tied together. When we think we are reporting ‘current’ income, we are really reporting perceptions of future income and it is not at all clear that these should necessarily belong to current stockholders. The accounting literature has
primarily focused on the legal claims to these so-called gains or losses but has not paid much attention to
the philosophical or phenomenological nature of these reported events.

A primary approach taken by the IASB and most national based accounting standard setting
bodies since the mid-twentieth century has been to develop detailed definitions of accounting elements
and from those to reason out how to present economic measures on the financial statements. In contrast
Buddhist philosophers suggest that the inherent nature of all phenomena is emptiness (shunyata),
signlessness (animitta), and aimlessness (aparanihitia). (Hahn 1998; Rabjam 2007) Emptiness does not
mean that phenomena do not exist, but rather they exist only in interdependence upon their social and
economic milieu, therefore it is not possible to render a completely accurate measurement for any single
object in isolation. Signlessness means that it is never completely possible to define anything perfectly.
Aimlessness suggests that since entities are not singular but interdependent with society, individual entity
goal attainment is meaningless without consideration of the interdependent connection to society and
other factors in the environment. These concepts suggests it is not surprising that the FASB/IASB style
conceptual frameworks cannot be completely satisfactory as a basis for accounting practice and suggests
that European influences within the IASB to reframe the categories on the balance sheet to match those
of the Statement of Cash Flows will also be problematic. Though the Trueblood Committee (AICPA 1972)
noted that one potential objective of accounting might be to report on those activities of the enterprise that
affect society and which are important to the role of the enterprise in its social environment, most
accounting standard setting bodies have chosen a much narrower goal of focusing primarily on the aims
or needs of investors and creditors while largely ignoring the concept of accountability to the greater
society.

Relationship to Mainstream Research

In spite of lucid attempts by some public theorists to refute the underlying assumptions of capital
markets based research, mainstream accounting research today is primarily based on concepts from
classical economics. (Tinker 1985; Lehman 1992; Puzy & Tinker 1995; Mandler 1999; Mitra-Kahn 2008;
Petri 2004) Whether we label research papers as capital markets, agency theory, or even behavioral,
accounting has essentially one paradigm – firms exists for the benefit of investor/creditors and accounting
provides information to help those investor/creditors to maximize their gains and minimize their losses
within competitive markets. Some physics formulas have actually been used to enhance this self-
centered focus on maximizing shareholder wealth (Ollette 1999; Derman 2004) Yet even economics is
beginning to evolve in a direction that resonates with the interdependence conclusions from philosophy
and physics. Game theory (Fernandez & Bierman 1998; Gintis 2000) recognizes that actors can attain a
higher result through cooperation than through the cut-throat competition of classical purely competitive
market economics. This suggests an area in which accounting researchers with a genuine public or
social interest might combine forces with mainstream economics based researchers using the modified
assumptions of game theory.

Public interest or social researchers who wish to remain within a non-quantitative, verbal-analytic
frame which has been more common in this field might still look to Eastern philosophies for ways to coach
their arguments in frames more useful to the standard setting discourse. While all search for ultimate
truth can be useful to the seeker, it is unfortunate that the current trend in public interest accounting
research is to emphasize accounting as ‘bullshit’ (Macintosh 2006) rather than to seek constructive
compromise or even civil discourse beyond a very small core audience. Just as the concept of
emptiness in Eastern philosophy requires considerable background for lay audiences to understand that
this is not entirely nihilistic and negative in meaning, public interest researchers might find clues in the
dialog between Buddhist philosophers and physicists on interdisciplinary cooperation for the genuine
good of society. Focusing on the paradoxes and the tendency for accounting to cycle back and forth
between historical cost and fair value accounting in spite of what should be known weaknesses could
also serve to enliven accounting history as a respected accounting paradigm. Porter (1995) has begun a
tentative dialogue which suggests it is a weak professionalization movement that causes accountants to
cling to a myth of standardizability even where it is clearly not feasible. Paulos’ (1998) innumeracy
hypothesis may be possible explanation for why the public doesn’t even pay enough attention to the
accounting numbers to realize their limitations. Still, a specific focus on paradox and limitations in
accounting could be used as a backdrop for more behavioral, sociological, or psychological research on
why the accounting profession chooses to ignore changing prices as a critical problem area in financial
accounting measurement. The focus on understanding the paradoxes in accounting might also logically
lead to new experiments with statements that recognize the interdependency between enterprises and global social, environmental, and economic trends. Though some PHD faculty are beginning to explore the connections between accounting and physics (Demski et al. 2006; Palmrose 2008), a risk with any program of interdisciplinary research is that it requires a broad-based training for which there is little institutional infrastructure or support. In one version of the fable of the Emperor’s new clothes (Andersen 2005) in the closing scene after the young lad has pointed out the sartorial deficiencies, the Emperor simply continues on the with the parade saying, “Well, what else could I do?” There is a lot of nakedness within the double entry financial reporting paradigm that the profession has become very adept at simply ignoring. This begs the question “Is scientific revolution (Kuhn 1962) a fable as well”?

References


