FINANCIAL ACCOUNTING INFORMATION AND THE RELEVANCE/IRRELEVANCE ISSUE

(Global Business & Economics Review Volume 5 No.2 December 2003 pp:140-175)

Stanley C. W. Salvary, Canisius College

ABSTRACT

Some current research conclude that the numbers in financial statements are not relevant for three basic reasons. The numbers: (1) are not isomorphic with capital market values, (2) do not have a future orientation, and (3) are un-interpretable since they are based upon five different measurement attributes. The lack of isomorphism argument is invalid since actual *current* performance is not identical with the capital market expectations of *future* performance. The lack of a future orientation argument is invalid since financial statements capture what has happened and not what is expected to happen. Since a single measurement attribute is required to produce meaningful measures, the un-interpretability argument holds. A unique measurement attribute is identified in this paper to address this problem

I. INTRODUCTION

In S*tatement of Financial Accounting Concepts No. 1: Objectives of Financial Reporting by Business Enterprises* (SFAC1) [1978], the Financial Accounting Standards Board (FASB) maintains that the function of financial accounting is to generate information useful to a group of users (investors and creditors) for decision-making. The focus on that specific function (decision-making) leads to a concern for predictive value, as opposed to feedback value, in financial statements. This focus has questioned the relevance of the information contained in financial statements for investors' prediction of the securities market values/stock prices and has ushered in and perpetuated a line of research that views capital market valuation as the basis for determining the numbers to be incorporated in financial statements**.**

However, the relevance of the financial statements can be appreciated in context of the firm as a cash flow conduit involved in a *cash flow process*--a nominal money augmenting process. This process, which is measured in financial accounting, involves the storing of financial resources in the form of non-monetary assets and subsequent release with the passage of time in the revenue generating process at an amount greater (or

possibly less) than the earlier/previously stored amounts. *Firms execute their cash flow plans and the consequences of those plans are measured in nominal money terms.* Since there are different uses (different cash flow opportunities) to which an asset can be placed, then the cash flow to be expected from a particular asset is directly related to its use. Thus, financial accounting measures of individual assets are conditioned by their uses and the risk associated with those particular uses.

Probably, one of the more transparent roles for financial accounting measurement is reflected in the Basle Capital Accord of 1988, which has contributed significantly to international bank regulation and supervision. Since capital is an important indicator of a bank's financial condition, banks' capital adequacy attracts great attention from the financial markets [Swaan 1998,231]. Capital requirements, as per the Basle Accord, limit leverage and provide a buffer against unexpected losses, thereby fostering the safety and soundness of banks. In accord with the Basle Capital Accord's risk-based capital (RBC), the measures of "capital" as applied under the regulatory process may not reflect a bank's true capacity to absorb unexpected losses. The deterioration in banks' economic net worth could be masked by deficiencies in reported loan loss reserves. Total risk-weighted assets, as the denominator of the RBC ratios, may not be an accurate measure of total risk [Jones and Mingo 1998,53]. However, the regulatory risk weights have been modified to recognize significant differences in credit risk among financial instruments, in addition to differences across banks in hedging, portfolio diversification, and the quality of risk management systems in place [FDIC 2003].

Importantly, the concern is for measurement that relates to the operating activities, therefore financial statements of the banks should reflect measurements of an attribute that reflects the underlying phenomena--cash flows. In its response to the FASB's preliminary views paper on major issues pertaining to fair value reporting of financial instruments and related assets and liabilities, the British Bankers' Association [2000,2] is quite emphatic on the need for correspondence between the measurement and the observed phenomena. "[F]or banking book assets and liabilities - fair values take us away from the economic underpinning of the business. It results in profits and losses that may never materialise

being recognised according to a short term theoretical model and its adoption must give the impression that the bank's assets and liabilities are readily tradable, which simply is not the case."

Planning cash flows requires an understanding of the environment and existing circumstances. To increase monetary returns, several retail firms issue their own interest-bearing credit cards to finance their accounts receivable (e.g., Wal-Mart and Target [Lazarony 2001]; Radio Shack, Ann Taylor, Victoria's Secret, Lane Bryant, and Lerner New York [Schumer 2002]). Interest rates charged by those cards are in excess of 20%. In light of that situation, those companies prefer credit sales on an extended basis to cash sales**.** This preference is based upon two considerations: cost effectiveness and efficiency in cash management--the need to find an outlet to invest cash inflows from sales is eliminated and the risk associated with unrelated investments is minimized.

Good managers attempt to understand and anticipate the conditions that would produce change; those who do understand and anticipate changes are those who lead their companies in the right direction. Participants in the capital market place a value not on the assets and liabilities of the business firm but on the *strategy of management* (as outlined above) *and the nominal money earnings that those firms generate*. Thus, capital market participants need to know the results of the cash flow plans, and the reliability of the management team of each firm under consideration is assessed by financial analysts.

The objective of this paper is to present a case for the undiminished relevance of conventional financial accounting information in spite of certain limitations. The remainder of this paper approaches the task by clearly differentiating between: (1) financial accounting measurement (of current performance) from the role of capital market valuation (of expected future performance), and (2) financial accounting measurement (of current performance) from the function of financial analysis (in assessing current performance to provide a basis for capital market valuation).

II. LIMITATIONS OF FINANCIAL ACCOUNTING INFORMATION

There is no denying that current financial accounting data are less suitable for some

questions than for others [Demsetz 1997]. The suitability issue of financial accounting data has led Demsetz [1997,95-99] to attempt to correct the misunderstanding of scholars due to an article by Fisher and McGowan [1983], who reject the usefulness of accounting data for economic analyses. If the concern is about the equalization of profit rates across investment opportunities, then replacement cost would be the appropriate measurement attribute, since the question is not one of measuring what the firm *has done*. However, if one is interested in judging management's performance or firms' financial structure and investment decisions [Cleary 1999], then, absent fraudulent financial reporting (e.g., Adelphia Communication, Enron Corp., Qwest Communications, Rite-Aid Corporation, Waste Management Inc., WorldCom Inc., and Xerox Corporation), conventional accounting data provides the necessary information.

Nevertheless, there is a strong belief [Smirlock et al. 1984,1054], which is shared by many accounting researchers that the market is the real thing and that accounting information is a poor reflection of it. It is suggested that to correct the situation, accounting information must be altered to mirror market values. This solution implies that accounting measurement is not needed and that market values should be the only data collected and recorded in the books of account. The recommended change in financial accounting (e.g., International Accounting Standards Committee [1997]) is based upon studies (e.g., Barth, Landsman, and Wahlen [1995]) which focus on the reaction of share prices in relation to market value of marketable securities. Apparently, such a recommendation does not focus on two very critical factors: (1) measurement relates to the particular phenomenon and the corresponding attribute, and (2) financial institutions face a technical insolvency effect. This latter condition results from ignoring the supply/demand relationship (that is, all of a firm's shares are assumed to be valued at the share price for a much smaller number of that firm's shares that are actually traded on a daily basis) [Lewis 1998; Salvary 1979; Fraine 1962].

In spite of the clear evidence over the last decade on the misalignment between market values and financial accounting measurements, the academic researchers from one corner focus on stock price reaction as the basis for the determination of the numbers to be

employed in financial statements. Currently, there is a major rejection of this line of research [Holthausen and Watts 2000]. The market proponents argue vehemently that their line of research is valid [Barth, Beaver, and Landsman 2001].

While, a clear understanding of financial accounting phenomena is needed before there can be a proper description/explanation of that phenomena, the problem in financial accounting is compounded by the fact that the FASB, in *Statement of Financial Accounting Concepts 5: Recognition and Measurement in Financial Statements of Business Enterprises* (SFAC5) [1984], discussed aspects of financial accounting [SFAC5, para.63] but did not specify the observable phenomena in financial accounting. The FASB [SFAC5,para. 66,67], maintains that five different attributes--historical cost/historical proceeds, current [replacement] cost, current market value, net realizable (settlement) value, and present (or discounted) value of future cash flows--are used to measure the items that are currently reported in financial statements; and the use of a particular attribute depends on the nature of the item and the relevance and reliability of the attribute. Furthermore, SFAC5 [para.70] states that: "Rather than attempt to characterize present practice as being based on a single attribute with numerous exceptions for diverse reasons, this concepts Statement characterizes present practice as based on different attributes. Rather than attempt to select a single attribute and force changes in practice so that all classes of assets and liabilities use that attribute, this concepts Statement suggests that use of different attributes will continue, and discusses how the Board may select the appropriate attribute in particular cases."

The FASB has not identified a single attribute for measuring financial accounting phenomena. Currently, the use of different attributes results in a *mixed* [attributes] *model* to arrive at the numbers presented in financial statements. Consequently, due to the failure to use a single attribute in financial accounting, *the usefulness/interpretability of financial accounting information is limited.*

Unequivocally but unfortunately, the Special Committee on Financial Reporting (SCFR) of the American Institute of Certified Public Accountants [1994,95], in its report "*Improving Business Reporting - A Customer Focus, Meeting the Information Needs of*

Investors and Creditors," has accepted the FASB's position on the use of a *mixed* [attributes] *model*, with measurement in financial statements at cost, lower of cost and [market] value and fair [realizable] value. Regrettably, the FASB (SFAC5) and the SCFR [1994] (by their adherence to a mixed [attributes] model for financial accounting measurement) have left the Financial Accounting Policy Committee of the Association for Investment Management and Research with no hope but to conclude that: "We are fated always to have a mixed-attribute accounting model" [Knutson and Napolitano 1998,175].

However, given the analysis presented by Salvary [1992], the FASB's position on the use of "different attributes" and the SCFR's position on a "mixed [attributes] model" cannot be supported. A single attribute (recoverable cost), which has been identified by Salvary [1985/1989/1992], leads to a unique model which is not mixed. The various valuation rules (which give rise to the appearance of different attributes) in financial accounting are necessary for the convergence of a heterogeneous group of items into a homogenous measure. (See Section X for a discussion of the measurement attribute - recoverable cost.)

III: EXTENSION OF THE DISCLOSURE PROCESS

There is a continuing trend to deal with the limitations of financial accounting information by extending the disclosure process of financial reporting. The SEC's requirement [*ASR 159*, 1974, as amended and broadened with item No. 11 in Regulation S-K, 1980] of a section in the financial report: Management Discussion and Analysis, addresses this issue in part. The problem with the current requirement is that only the results of past decisions (as they relate to liquidity, capital resources and results of operations) are currently analyzed and discussed [Afterman 1995,56]. The SEC's *Financial Reporting Release No.36* [May 18, 1989], among other things, calls for management to discuss (disclose) known trends, demand, commitments, events and uncertainties, if they are reasonably likely to occur. Dieter and Sandefur [1989] maintain that management's business plan for the upcoming year provides the information needed to satisfy the SEC's requirement. Nevertheless, extension of the data may include short-,

intermediate-, and long-term budgets, and a host of soft data; and other information deemed necessary as revealed by the study of Benjamin and Stanga [1977], Logue and Merville [1972,44], or that advanced by the Corporate Report [Harrison 1975/1976]. The SEC's Division of Corporate Finance [2001] continues to press for more disclosure in MD&A in particular better explanation of the reasons for the changes in historical reported amounts and added discussion of significant uncertainties and whether reported trends and financial relationships can be expected to continue.

In October 1994, the SCFR recommended "Business Reporting", which goes beyond traditional annual financial reporting. It is similar to earlier clamors for extension of the disclosure process and is closely related to the reporting requirements mandated by the Securities and Exchange Commission (SEC) of publicly traded companies. In its report, the SCFR [1994,94] concluded that users would like to have more information. However, *they do not favor the replacement of the current accounting model with a value-based accounting model* because the conventional financial accounting model provides: (1) a stable and consistent benchmark that is highly useful for understanding the business, identifying trends, and valuing a business by projecting earnings and cash flows; and (2) reliable information because the amounts are derived from market transactions.

The SCFR'S [1994,25] recommended disclosures are: (1) Financial and Non-Financial Data, (2) Management's Analysis of Financial and Non-Financial Data, (3) Forward Looking Information, (4) Information About Management and Shareholders, and (5) Background About the Company. As noted, the SCFR *expressly identifies and separates evaluative data from predictive data.* While the SCFR's recommendation to make more information available addresses one limitation of financial accounting information, *the other limitation of data interpretability survives*, owing to the continued use of several measurement attributes which violates measurement theory. In Section X of this paper, a discussion is presented on the use of a single measurement attribute (recoverable cost), which will *enable compliance with measurement theory, provide for correspondence with observed phenomena, and improve the quality of financial accounting information*.

IV: DISENCHANTMENT - THE MISSING ASSET(S) CONTENTION

Cash flow generating capacity is a necessary quality that must be satisfied for an item to be recognized as an asset. This condition is fully recognized by the Financial Accounting Policy Committee (FAPC) of the Association for Investment Management and Research (AIMR) [1997], in its comment letter in response to the IASC Exposure Draft preceding IAS 38.

According to Daum [2001,1], while a firm's balance sheet provides information about physical assets and financial capital employed by the firm, it provides no insight on important intangible assets (such as, customer value, business partner network value, research and development pipeline or innovation capital, and human capital). Also, it is maintained that financial accounting does not account for a large portion of the growth in firm value that has been created through investments in intangibles over the past two decades.

Arguments for high PE ratios of the high-technology and dot-com firms are based on the existence of intellectual property and other value relevant assets that have not been reflected in the financial statements [Hackney 1999]. However, high PE ratios are more a function of the fact that: "Profits are fast becoming irrelevant in a world driven more by expectations than by deference to quarterly earnings [Grebb 1999,71]." Writing at the end of the year 2000, another commentator, on the stock market noted that the majority of share price appreciation in the market was concentrated among companies that were losing money [Puplav 2000].

The plea for market value accounting ignores the distinction between measurement and valuation. *Measurement* means that there is an identified observed phenomenon and a relevant attribute associated with that phenomenon and numbers are assigned to the particular attribute. *Valuation* entails arriving at some value based upon expectations of future performance for the purpose of inter-temporal exchange of current cash for future cash.

The separation/distinction between market values and accounting measures is emphasized by Trevino and Higgs [1992,211]: "[W]hereas accounting rates of return such

as ROI and ROA are measures of the profitability of the firm, MRET [total market rate of return] is a measure of profitability to the shareholder of the firm. There is no necessary relation between the accounting returns and the market returns in a particular year." For instance as revealed in Table 1 and Table 2, in spite of the heavy periodic losses reported in the financial statements by Amazon.com Inc., Lucent Technologies, and Nortel Networks CP, the price of their stocks soared until they finally came tumbling down. The operating performance of firms and the radical changes in their market values over time is a clear indication that measurement and valuation are two distinct processes.

If there are unrecorded intangibles that possess value, their non-recognition in balance sheets would not preclude their earnings/cash generation from flowing into the income stream of those organizations. The existence of such cash generation/earnings would be captured in the income statements and incorporated in the market prices of those companies' stocks. The data, in Table 2, simply do not support the missing values arguments as those firms are humbled with staggering losses.

TABLE 1
Valuation of Expected Future Performance

	Stock Price Data					
Company	High	Date	Current	Date/2002	Current	Date/2003
Amazon.com	$110+	June 1999	$18+	June 17	$35+	June 19
Lucent Technologies	$ 80+	June 1999	$ 2+	June 17	$ 2+	June 19
Nortel Networks CP	$ 94+	Jan. 1998	$ 1+	June 17	$ 3+	June 19
Yahoo Inc.	$240+	June 1999	$17+	June 18	$32+	June 19

Source: WSRN.com June 18, 2002 and June 19, 2003.

TABLE 2
Measurement of Past Performance

Income Statement Data - Net Income(Loss) in $Millions

Company	2002 $	2001 $	2000 $	1999 $	1998 $	1997 $
Amazon.com	(149.1)	(567.3)	(1,411.3)	(720.0)	(124.5)	(27.6)
Lucent Technologies	(11,949.0)	(16,226.0)	1,219.0	3,458.0	970.0	541.0
Nortel Networks CP	(3,585.0)	(27,317.0)	(3,470.0)	(170.0)	(537.0)	829.0)
Yahoo Inc.	42.8	(92.8)	70.8	61.6	25.6	(22.9)

Source: Income Statements of the respective companies.

If values are assigned in firms' balance sheets for items that are supposedly missing, then the effect, on firms with earnings in a given period, will be a considerable lowering of their rates of return on total assets. Presumably, distorted market prices would be the result. Also, the operating losses of firms in any period will be magnified due to the increase in total assets arising from the assigned values for missing assets.

V: IRRELEVANCE DUE TO LACK OF ISOMORPHISM[1]

There is a concern among researchers for the lack of isomorphism between the accounting numbers in companies' financial statements and the aggregate market values of those companies' stocks (e.g., Brennan and Connell [2000]; Hackney [1999]). According to Brennan and Connell [2000,206]: "Substantial differences often exist between the market and book values of companies. Many of these differences can be explained by intellectual capital assets not recognised in company balance sheets."

Capital market values (e.g., security prices) represent expectations of future earnings and changes in future interest rates. Changes in the interest rate do produce

changes in stock prices. Change in the rate of interest occurs due to: (1) changes in the demand for financial capital/money, (2) monetary policy, when government policy-makers deem that inflation needs to be curbed, or (3) government's fiscal policy when the government is engaging in deficit financing in pursuing particular budget objectives (e.g., economic stimulation). In whichever situation, while a firm's cash-flow remains the same, the market value of that firm's security is affected. In financial accounting, the concern is for the measurement of the cash-flows/earnings generated by the particular plan that the firm has in place. The change that is of importance from a financial accounting measurement standpoint is the change that is taking place in the firm's current cash-flows/earnings. This change is of particular importance to investors since dividend is a function of cash flows/earnings.

To some accountants, a capital-market-oriented value of a firm's assets and liabilities, and not a transaction-based measure of those items, is *the* appropriate approach to measure in financial accounting because the market provides the assessment of financiers/investors. As noted in Salvary [1989,89]:

> "Security returns, a function of stock market movements, is seen as the *real phenomenon*; and accounting earnings because of *measurement error* is seen as a means, but a rather poor means, to predict stock returns [Beaver, 1981,82,134,135]. It is this separation or view of the stock market as being the correct value of claims, *independent of accounting information*, that leads to the questioning of the relevance of accrual accounting [Beaver 1981,114,115,166; Beaver and Demski 1979].

It is reasoned that there should be a direct correspondence between accounting numbers and market values. Implicit in that reasoning is the belief that "the market is a perfect measuring system which serves as a corrective device for an ill-designed measurement system [financial accounting; in which case] . . . the role of financial accounting is to mimic the capital market expectation of future earnings . . . [returns]" [Salvary 1989,21]. Unfortunately these accountants have chosen to inventory the conventional wisdom of the efficient markets literature and draw upon research which stresses *the information needs of investors as opposed to the measurement of the observed phenomena*--an information perspective by means of which the short term interest of

investors are served as opposed to a measurement perspective which would focus on corporate reality.

The focus on short term stock price movement hinges on expectations of current earnings. The management of many firms are obsessed with meeting those expectations and invariably stop at nothing to produce the expected earnings. For instance, in 2000, Yahoo publicly pledged to discontinue reporting advertising revenues from dubious dot.com companies [Reuters 2002]. Late in 2001, Homestore.com restated its operating results for 2000 and 2001 due to its overstatement of revenues [Reuters 2002]. In its report, the United States General Accounting Office (USGAO) [2002] listed 919 *restatements* as having been made because of accounting irregularities between January 1, 1997, and June 30, 2002. While, as noted above, the current environment is rife with instances of corporate misconduct, the concern for short-term earnings management, in earlier times, has been adequately described by Shubik and Whitman [1971,64-65]:

> "The economics of the stock market investing are directed toward the short run. In the short run, psychology will have a much greater influence on market prices than underlying corporate facts, . . . As a result, there are many pressures making people in the "Street" short-run conscious. First, there is the tendency for money managers to be judged by the peers and, more importantly, by their customers on how much appreciation they obtained for their portfolios in recent periods- . . . Second, there is a finance factor--those who borrow heavily to finance a portfolio need to have near-term upside market action because, if the value of the portfolio goes down, their losses as a percentage of equity can be horrendous, and, if the value of the portfolio does not go up, the attrition inherent in interest costs can be unsettling. [To make matters worse,] [t]he accounting rules and regulations seem designed largely to satisfy the needs of [the] average-opinion-of-average-opinion investors, who have two characteristics: they really don't care about what is going on in business, and they have a vital interest in near-term market fluctuations."[2]

The argument on the irrelevance of conventional financial accounting information because there is no isomorphism between financial accounting numbers and capital market values is apparently dominated by two fallacies: the *fallacy of division* and the *fallacy of composition* [Salvary 1998b,261]. The basic assumption of the fallacy of division is that the aggregate value of the firm's shares is the basis for the valuation of the firm's net

assets. The basic assumption of the fallacy of composition is that the value of the firm's net assets is the basis for the valuation of (should coincide with) the aggregate value of the firm's shares. In reality, the value of a firm's share in the capital market is not based on the transaction values of the firm's physical assets and liabilities; the firm's share value is based upon investors' expectations of that firm's future earnings, the assessed riskiness of the firm's operation, and the prevailing interest rate for the particular time horizon.

At times, the expectations of analysts/investors are overly optimistic [Daniel et al. 1998; Daniel et al. 2001] Recently, this over-optimism was particularly prevalent during the period from 1998 through early 2000. As noted in Bell Capital Management, Inc.'s *Wealth Management Insights* [2002,1]: "The recent bull market proved conclusively [that] stock prices can reach great heights for [even] worthless companies. Investors bought shares of companies that had never earned a profit and, in some cases, never generated revenues." Being more specific, Colvin [2000,150] maintained: "America Online is worth more than GM, Ford, and the entire American Steel industry combined. . . . AOL's stock price makes sense only if you think the company can increase its annual EVA [economic value added] by an amount equal to the highest EVA ever achieved in American business and increase it by that amount every year forever." On January 24, 2000, the day of Colvin's article AOL stock price was in excess of $80 per share producing a Price/Earnings ratio in excess of 180.

The capital market valuation problem, as described above, is related to the phrase 'new economy'. Specifically in terms of valuation principles, it is claimed that the methods which accountants and stock market analysts have been accustomed to use in describing and valuing operations and activities are no longer appropriate for new businesses with few tangible assets.

The phrase 'new economy', which is used to describe growing and emergent sectors, basically telecommunications, media and technology, was popularized with great fanfare in 1996 [Business Week]. The 'old-economy' includes most areas of manufacturing and established retailing. Enthusiasts for the new economy claim that there is a discontinuity, rather than an evolution, in the current economic processes. Consequently,

most of the established knowledge is irrelevant, and those whose professional skills are based on such knowledge are poorly-equipped to deal with the issues posed by the new economy. The strongest such claims come from those persons who are professionally involved in the new-economy sectors. Equally emphatic about the irrelevance of established old-economy knowledge are consultants and investment analysts. While professional economists have generally been more skeptical, their voices have been drowned as the new economy crescendo has risen [Kay 2001].

One of the most notable features of the new economy, as noted in Table 1, is the stock market capitalization attached to recently established businesses. Since such valuations can no longer be supported by conventional rules based on historic earnings, this is an area in which new valuation approaches have been emphasized and the constraint of current performance is of necessity conveniently relaxed. Typically, as advocated by Desmet et al. [2000]:

> "In forecasting the performance of high-growth companies like Amazon, we must not be constrained by current performance. Instead of starting from the present - the usual practice of DCF valuations - we should start by thinking about what the industry and the company could look like when they evolve from today's very high growth, unstable condition to a sustainable, moderate-growth state in the future; and then extrapolate back to current performance. The future growth state should be defined by metrics such as the ultimate penetration rate, average revenue per customer, and sustainable gross margins. Just as important as the characteristics of the industry and company in this future state is the point when it actually begins.

Since 1996, there have been widespread claims that this 'new economy' requires a new economics in three major areas: (1) the measurement of economic statistics and in macroeconomic management, (2) company and stock market valuations, and (3) the nature of competitive advantage and the origins of business success [Kay 2001]. However, Kay [2001] having found little evidence to support the belief that revolutionary, rather than evolutionary, change is required, concluded that investors and those whose job it is to manage the economy might have been saved from costly mistakes had well established economic principles and concepts been applied.

It is interesting to note that as early as March 29, 2000, the Napeague Letter reported: "[P]ositive financial results in the form of profits and cash inflows are the ultimate determinants of a stock's value. The I-net is now seeing its first "dot.com" bankruptcies, due to lack of profits and cashflows, and one Internet analyst who has, in the past, issued "overly enthusiastic" valuations for various "dot.coms" is now saying that 75% of all Internet companies will never make money. Net-net - there is no "new paradigm" and "the rules have not changed."

VI. FEATURES OF FINANCIAL AND MANAGERIAL ACCOUNTING

The focus of the FASB and academic researchers on investors' needs *confuses financial analysis with financial reporting;* that is, *evaluation* (of data for decision-oriented models utilized in managerial accounting) is being confused with *measurement* for financial accounting purposes. If financial accounting is to fulfill its role as an administrative information science, then the question to be addressed is not *what are the perceptions of users* of accounting information, but *what are the measures to be applied* to provide a description/explanation of organizational activities.

Although being highly informative, accounting information is not a complete representation of the organization. Both branches of accounting (financial--description/ explanation and managerial--prescription/prediction) deal with abstractions of reality (partial observations motivated by purpose). The phenomenal observations of financial and managerial accounting are essentially two separate space/time relationships. Financial accounting information captures the economic space occupied by the firm in time t--*historical financial reporting*; whereas, managerial accounting information is a projection of the economic space to be occupied by the firm in time t+1--*prospective financial reporting*. Financial accounting information is the major input for evaluation of historical/actual performance within the framework of managerial accounting, and the evaluated data generated in managerial accounting provide the basis for prediction/projection for the investment decision. While both sets of accounting information are essential inputs into the decision-making process, such information sets of necessity are modified by the other information inputs in the decision-maker's model.

The measurement focus in financial accounting is upon measuring the actual cash flows during a period and *estimating the amount of cash flows derivable from existing investment projects*--the estimated recoverability of committed resources (in part the organization's risk exposure). *Financial accounting portrays (explains) the past behavior of the organization, but it does not project/predict the future*. Since the firm's past cannot be changed, the financial condition and strategic posture of an organization is a historical fact. Importantly however, *information derived from financial accounting enables an organization to plan for change in the future*. Managerial accounting (with an ex post focus in the form of variance analysis) has primarily an ex ante focus; it generates information reflecting probable future changes and their effect on the investment strategy of the entity. Managerial accounting engages in dynamic analysis and transforms static observations into a wide range of prospective considerations reflecting various amplitudes in a discrete manner. *The information generated by managerial accounting is both prescriptive and predictive.*

Although financial statements constitute the major part of financial reporting, at times they are equated with the totality of financial reporting. Unfortunately, *a part of the whole is deemed to be the whole*. A priori, information which captures only a part of the total need can only partially satisfy the total need. At present, while *internal financial reporting* incorporates both financial and managerial accounting information, *external financial reporting* is comprised primarily of financial accounting information; hence, very little information in external financial reports relates to the decision-making (planning) function of management. To provide complete information on an organization, it would of necessity require that financial reporting draw upon other disciplines (e.g., psychology, sociology, economics, etc.). Indubitably, external financial reporting can be extended to include an innumerable variety of information about the capability of an organization; at the very least, it should include managerial accounting information.

While investors would love to have predictive information provided to them, they may not be disenchanted with the fact that financial statements are not a predictive device. Investors need specific information for the prediction of future prospects. They need

information that is contained in the financial reports generated under managerial accounting, which is future oriented. *A logical solution to this information problem would be the inclusion of financial and managerial accounting information in external financial reporting. The information sets should be clearly separated in the external financial report to avoid the possibility of confusion--what has been accomplished from what is expected.*

The foregoing position finds strong support from the conclusion and recommendations of the SEC-Inspired Garten Task Force (GTF). In May 2001, the GTF concluded that: "The current reporting system, comprised of Generally Accepted Accounting Principles (GAAP) and SEC mandated disclosures, focuses primarily on historical financial transactions. *This system provides limited guidance about the other information that investors need.*" The GTF recommended the creation of: (1) a new framework for the reporting of intangible assets and operating performance measures and (2) an environment that encourages innovation in disclosures [Report 2001,1-3].

The conclusion and recommendations of the GTF, are reinforced by recent studies. Canibano et al. [1999]; Sveiby [1998]; and Bornemann et al. [1999] recognize that the financial statements cannot provide the information that is needed and that the problem is better addressed by developing models that would better measure the intangibles and providing a framework for better disclosures to inform users of the existence and impact of intangibles. Bornemann et al. [1999] maintain that financial accounting has a historical focus [what has happened] and is expressed in monetary terms; whereas, intellectual capital has a future orientation and focuses on qualities that would lead to success. Canibano et al. [1999] has developed a model for a reporting framework with non-financial measures alongside financial measures. Also, the Canadian Institute of Chartered Accountants (CICA), in its concerns regarding the relevance of traditional financial accounting for performance in the new knowledge-based economy, has developed the Total Value Creation (TVC) model. This model has been developed to capture an entity's value-creating activities, which, as stated in unequivocal terms, is quite distinct from value-realizing activities. That is, TVC focuses on where things are going instead of from where they are coming [Upton 2001,21].

The added information discussed above is presently being used by management; and much of it is already provided to some users such as banks. While management has been reluctant in the past to disclose such information to the general public, given the current encouragement and prodding by the SEC, a new sense of urgency has been adopted by management entailing innovative disclosures. As reported by Keller [2003,G2], "Larger business have been taking their own steps to disseminate more relevant, non-required, non-financial information to their investors and other key stakeholders."

Business leaders have recognized, due in part to Kaplan and Norton [1992], that to effectively manage what is needed is not a change in the financial measures but the development of alternative non-financial measures that drive future performance. Kaplan and Norton [1996,8] maintain that the Balanced Score Card (BSC) complements financial measures of past performance with measures of the drivers of future performance. The objectives and measures for the BSC are derived from an organization´s vision and strategy. "BSC offers a way for an organization to gain a wider perspective on its strategic decisions by considering the impact on finances, customers, internal processes and employee learning. BSC is designed to measure degree of success in implementing business strategy. The analysis takes into account financial and nonfinancial measures, internal improvements, past outcomes and ongoing requirements as indications of future performance" [Balloo 2003].

VII: ACCOUNTING MEASUREMENT AND SOCIAL DYNAMICS

Financial accounting information is shaped by and at the same time reflects the institutional arrangements as developed by the social process of adaptation. Time is a critical factor in the financial accounting model. All investments (plans as executed) are to be evaluated over some time frame to determine whether to continue or discontinue, also whether to renew the plan. This specific condition is the basis for periodicity in financial accounting. In the periodic assessment of effort, periodic measurement of revenues and expenses are deemed necessary in order to determine what has been achieved in the given time frame.

Decision-makers choose at the margin a course of action to maximize their returns. In some cases, maximizing is accomplished by simply controlling the cost of money capital over an extended period of time. In such a situation it is important to know what it actually cost the decision-maker. While information is available on what it would have cost given another alternative, what is needed is information on the decisions as made. The two sets of information can be compared for the purpose of performance evaluation. However, a measure of performance should reflect on the consequences of actual decisions as expressed in money terms, and this performance must be assessed in light of other variables. It is that which has occurred (the decisions which have been made - as made - as opposed to that which could have been made or that which is contemplated) that has to be documented and reported.

Controlling the cost of capital over the planning horizon is an important consideration for effective performance. Clearly, the organization's planner establishes a planning horizon, and through long term contracts for services of the factors of production price fluctuations of the firm's inputs are effectively removed. However, although the planner chooses a terminal date T for the investment, the stream of benefits (market prices of its products) are still outside the firm's control. The planner invariably selects a time horizon T which maximizes the expected value of the investment, and by choice the optimum investment among available alternatives emerges [Panzer and Razin 1974]. It is only because effective choice is a human reality that scientific tools, such as statistical probability, can be employed and as such permit planning of individual and organizational activities. Planning implies a rule-determined activity, be it chess, language, fire-fighting or product-manufacturing [Butchvarov 1970,134].

The cash-flow force that drives the economic system determines the measurement attribute of financial accounting; as such it is socio-economic system-oriented. For banks and insurance companies, liabilities are created through acceptance of deposits and premiums. These funds are invested and have to be recovered in order to satisfy liabilities as they become due. However, academic researchers are bothered by the fact that insurance companies report the market values of their bonds in the 10-K reports, but the

unrealized capital gains and losses on their bond portfolios are not reported. It is maintained that the reliability of financial statements of these companies are reduced because of securitization, financial reinsurance, and the flexibility of booking underwriting profits and setting loss reserves [Randall and Kopcke 1992].

It should be noted that insurance companies, owing to the nature of their product, have to accumulate relatively large amounts of cash, cash equivalents, and investments in order to pay for future claims and avoid financial ruin [Akhigbe, Borde, and Madura 1993,413]. In addition, the insurance companies must return an underwriting profit, independent of returns from the investment portfolio. Each company has to generate adequate operating cash-flow and liquidity to insulate it from the need to liquidate investments to satisfy expected claims and losses. Furthermore, the company must build adequate reserves to match its current underwriting risk profile [Lewis 1998,185]. The importance of cash flow and the avoidance of forced sales of the investment portfolio are critical concerns. Those concern are particularly important in light of the fact that for the year 2001 life and health insurers suffered a loss of $3.1 billion on the sale of investments and during the first three quarters of 2002 they experienced a staggering loss of $9.6 billion on the sale of investments [Weiss 2003].

Given the concern for liquidity, the insurance industry has national regulated accounting standards to ensure that insurers have sufficient capital and surplus to cover insured losses [Financial Services Fact Book 2003]. While unrealized gains on certain equity securities are reported as a component of stockholders' equity under Generally Accepted Accounting Principles, they are not included in regulatory capital under the various U.S. Agencies'[3] capital standards [Federal Reserve Board 1998].

The social dynamics of a money economic system provide for the adjustment of prices and/or outputs to the changes in individuals' tastes and incomes, and production technology. Be it a bank, insurance company, or manufacturing concern, a "cash-in and cash-out principle" is operational, hence the measurement of cash-flows (and not the reporting of market values) is critical in the determination of financial capital maintenance. The accumulation of money by means of monetary exchanges is the

motivation underlying the production process. The stock in trade of the banking firm is money; its involvement in the social process is the intermediation of money. The non-bank business firm is involved with the intermediation of consumable goods or services. This involvement gives the appearance that storing of physical objects is the ultimate objective of the non-bank business; whereas, it is actually storing nominal purchasing power, that amount of nominal money which is estimated to be recoverable--estimated recoverable cost. In this environmental setting, regardless of the type of firm, each and every firm is engaged in the accumulation of a stock of nominal money. Thus, nonmonetary assets simply constitute repositories of nominal money with varying degrees of risks usually greater than the risk identified with a bank savings account. Accordingly, the analogy drawn between a bank savings account and an equity security permits an identification of the measurement attribute (recoverable cost) consistent with the "cash-in and cash-out" principle.

In this setting, there are two categories of social dynamics, with each category reflecting a different type of risk: (a) causative choice (active--involving acquisition of productive physical assets) and (b) speculative choice (passive--high-risk saving in the form of financial claims). The banks and insurance companies fall into the category of speculative choice, whereas non-financial concerns fall within the domain of causative choice. In either case, an investment decision has to be made. How should the available money-capital be invested? To answer that question, the capital budgeting model or a variant of that model is used.

VIII: THE INVESTMENT DECISION AND CAPITAL BUDGETING

The investment decisions of firms are based upon the recoverability of the money invested. The capital budgeting decision (based on either the Present Value Model or the Discounted Cash Flow model) would provide the amount of money that should be invested. This amount of money when invested would constitute the recorded amount for the assets in question. The actual rate of return (ARR) on the investment in each year may be greater than, equal to, or less than desired/expected rate of discount used in the

investment decision. If the ARR is less than the desired/expected rate of discount, this would indicate that there is a loss sustained by the firm at the planning stage. The amount of the loss that is to be recorded is the difference between the value of assets on the books and the amount of money that would have been invested to date to generate the experienced rate of return. In this situation, the value of the firm will have fallen; the market will have a lower cash flow to value. If the ARR is equal to the desired/expected discount rate then no adjustment is needed. In this situation, there is no change in the market value of the firm. If the ARR is higher than the desired/expected discount rate, no adjustment is needed. In this last situation, the value of the firm will have risen; the market will have a higher cash flow to value [Salvary 1992,252-257].

Given the foregoing, financial accounting constitutes an ex post calculus; it reflects the recoverable amounts of money invested, and measures the profit (money increment) generated with resources held by the firm. Such earnings (money increments) serve as a guide for a market determined value of the firm's securities. This position is no different from the market valuation process pertaining to a bond and the legal claim of a bondholder. The interest paid (the earnings stream) divided by the prevailing interest rate for the given risk-class gives the market value of the bond in perpetuity; however, the amount given up to the issuer of the bond is the legitimate claim against the issuer. With respect to that investment, conditions are frozen. That is, the claimant cannot increase the interest on the amount of money invested if interest rates have increased. If the claimant were to sell the bond, the amount of money received and reinvested would only generate the same absolute amount of interest received on the initial investment. (The reverse is true.) For instance, if a $1,000 bond is paying $50 in interest and the interest rate has changed to 6%, then the market value of that bond in perpetuity is $833.33. Sale of the existing $1,000 bond for $833.33 does not alter the amount of the claim of $1,000 against the issuer, and the reinvestment of this $833.33 in a new 6% bond will not alter the interest earnings of $50 to the bondholder. What the change in value reflects is the marginal cost of capital (money) at that specific point in time.

Furthermore, *the bond illustration is significant in understanding the goodwill*

situation in financial accounting. The FASB [2003,13] has defined goodwill in the following manner:

> Goodwill should be measured as the difference between the fair value of the acquired entity taken as a whole and the sum of the fair values of all of the identifiable net assets acquired at the date control is obtained.

The foregoing statement reflects goodwill as a residue and not as a measurement. To state that goodwill in a purchase combination is the excess of the purchase price over the market value of the net (identifiable tangible and intangible) assets is flawed. Goodwill has to be measured and the bond analogy enables an understanding of how this measurement is undertaken as follows.

When a bond issue is floated and the contract rate of interest is greater than the market rate of interest, the purchaser of the bond pays a premium to the seller/issuer of the bonds in recognition of the interest in excess of the market rate. However, prior to the issuance of the bond there is no asset recognition of this premium on the books of the issuing firm. Upon the issuance of the bond, the firm receives cash and sets up a deferred revenue account--premium on bonds payable. This account is amortized (credited to income) over the life of the bond.

Similarly, goodwill reflects profits/earnings in excess of the industry average profits/earnings. Goodwill is no more nor less than that. There is no asset value to be recorded. Consequently if it exists then each year the benefits of goodwill will automatically be captured in the firm's income statement. Should the firm be sold, the purchaser will pay the seller a premium for the excess profits/earnings above the industry average for a limited number of years (e.g., five years at the maximum). The purchaser will record the payment (the premium for excess earnings) as an asset to be amortized (charged to income) to offset the excess profit/earnings that would be recorded for each of the successive years. *If the excess profits/earnings fail to materialize*, that is the money invested is not recoverable, then the entire balance has to be written-off.

Owing to the business combination mania over the last few years and given the FASB's definition of goodwill, there has been a chronic overstatement of assets in many

corporations' balance sheets. This condition has led to massive amounts of write-offs witnessed during the last few years. According to one report [Fulcrum Financial Inquiry 2003], approximately 28,800 business purchases occurred between the years 1998 and 2000. In this three-year period, there was a 30% growth of intangible assets for the S&P 500 companies and by 2001 intangible assets amounted to about 44% of book equity of those companies. In 2002, the goodwill write-offs by U.S. public companies amounted to approximately $750 billion. While the S&P 500 companies still have about $690 billion of goodwill remaining on their balance sheets, goodwill write-offs are estimated to be about $200 billion. In its financial report for 2002, AOL Time Warner wrote off approximately $90 billion of goodwill.

In its *Summary of Statement No. 142*, the FASB [2001b] offers the following reason for the issuance of SFAS 142:

> Analysts and other users of financial statements, as well as company managements, noted that intangible assets are an increasingly important economic resource for many entities and are increasing proportion of the assets acquired in many transactions. As a result, better information about intangible assets acquired was needed. Financial statement users also indicated that they did not regard goodwill amortization expense as being useful information in analyzing investments.

In spite of the massive write-off problem, the FASB has not addressed the problem associated with the definition of goodwill. Unfortunately, in order to satisfy the perceived needs of investors, the FASB [SFAS 142,2001] decided to eliminate the amortization of goodwill and require an annual impairment test. The FASB's decision constitutes a movement away from measurement and the proper recognition of goodwill.

SFAS 142 creates a more serious problem than the one it has replaced. As noted by Fulcrum Financial Inquiry [2003,4], under the impairment approach of SFAS 142, management is allowed a great deal of discretion in valuing goodwill. Since, when it is opportunistic, some executives will avoid a write-down to reflect an impairment, hoping that later on other favorable events will boost their company's value and vindicate the decision not to record the impairment. Unfortunately for investors, in accordance with the

big bath, the write-down usually will be made when the company is no longer sufficiently profitable. Apparently, ADC (The Broadband Company), with losses of $1.3 billion for 2001 and $1.1 billion for 2002 reported in its 2002 annual report, fits the mold. Given its deteriorating profitability, ADC in 2002 recorded a goodwill impairment of $85.5 million, leaving $3.8 million in goodwill on its balance sheet as of October 31, 2002. Furthermore, many companies (e.g., Polymer Inc. as reported in its 2002 annual report) will enjoy a boost in earnings because of SFAS 142 goodwill is no longer required to be amortized.

IX: ACCOUNTING INFORMATION AND MARKET VALUATION

Assets are stocks of money invested in goods and/or claims; assets give rise to yields. Should the asset values on the balance sheet be reflected at a capitalized rate (market value)? Would those values be a reflection of the cash flows expected to be generated by those firm? Each firm is confronted with its own cash flow schedule. The assignment of numbers in the financial statement should reflect the firm's cash flow schedule and nothing else. This information on the firm's actual performance is needed as input into the valuation model to project the expected future performance of the firm. Absent this measurement, the assessment of the firm's current performance using capital market values, which represent expectations of future performance, would not be realistic.

The measurement of the current cash flow and current estimated residual recoverable cost is independent of the capital market valuation of expected cash flows to be generated by the firm from its future operating plan. However, just as the price of a bond cannot be established without knowledge of the future cash flow (periodic interest payments) and the residual cash (maturity value) of the bond, the valuation of the firm's expected future cash flow is dependent upon a proper measurement of the current cash flow and the estimated recoverable cost (cash).

The efficiency of the money market is directly related to the ability to measure "the productivity of money capital at the margin and thereby giving signals either for additional money capital employment or for capital disinvestment and partial liquidation of the firm" [Vickers 1978,109]. Financial accounting generates the information for such an evaluation

and the market, through its revaluation of financial assets, ensures the efficient allocation of resources through the use of money. Financial accounting, by its measurement of the recoverability of money in use, enables an evaluation of claims; and, through the measurement of profit (current cash flows), it enables the market to arrive at values for financial assets (claims). This condition is so since the market (current) value is an aggregate of several periods (years) future earnings/cash flows - a sum of several parts. This aggregation (the market valuation model) is based upon expectations and is subject to revision as information on each part (year) unfolds [Salvary 1998a].

Given the foregoing, market (current) value will differ from financial accounting measurement [Salvary 1985;1989;1992;1998a]. Evidently, a current value is arrived at for a spot market transaction; it is an instantaneous value based upon anticipations arrived at for purposes of affecting a transfer of title to a claim--a pricing of the claims to future earnings of an enterprise; it is not a measurement of the assets of that enterprise. *The measurement of assets, based upon the measurement attribute - recoverable cost*, reflects recovery to be made according to a cash-flow plan as implemented. This cash-flow generating plan will be valued by the market at each point in time to reflect the changes in the intensity in the use of money: *changes in the interest rate*. *Changes in the valuation of the plan do not produce changes in the cash flow of the plan; however, the reverse holds*. This condition is so because claims to future earnings (equity security) compete with alternative forms of savings (life insurance, money market funds).

Unequivocally, current market value is a static datum; it constitutes a signal at a particular point in time. Therefore, a market value approach to financial accounting would constitute a total rejection of the planning horizon. Planning for the production of goods and service implies the existence of a time frame. Elimination of the planning horizon implies instantaneous decision-making with no ability to control controllable factors. Two such factors are the cost of capital (e.g. long term debt vs. short term debt) (Indiana Telephone 1971) and the cost of production (e.g. acquisition of fixed assets as opposed to rental of services) [Lutz 1951,52-55]. Investment is a result of a carefully devised plan of action which requires time for its implementation: (1) self-imposed or otherwise,

managers do select a planning horizon; and (2) all plans require a gestation period.

The foregoing points are fairly well documented in the concerns voiced by the British Bankers Association [2000]:

> ***[T]he earnings process***: with banking book assets the prime objective is to secure a stable margin between the amount received on interest-earning assets and the amount paid on interest-bearing liabilities. Interest is earned by the daily accrual of interest over the life of transactions, normally in line with cash flows, and not by taking advantage of short term fluctuations in fair value.
>
> ***[M]anagement of the assets and liabilities****:* the management's perspective of the performance of banking assets and liabilities is over the longer term and not based on short term price movements and market perceptions. Even for the management of interest rate risk, the focus is not fair value, but shifts in the yield curve.

In addition, the following concerns have been raised by the insurance industry [Patel 2003]:

> Significant volatility will be introduced if changes in fair values of assets and liabilities are taken through the income statement: the current proposals have not addressed the issue of performance reporting . . . .
>
> Insurance is seen to be a long-term business and therefore changes in short-term assumptions should not be relevant in measuring long-term performance.

X: RECOVERABLE COST: THE RECOMMENDED ATTRIBUTE[4]

In February 2000, the FASB issued Statement of Financial Accounting Concepts No. 7: Using Cash Flow Information and Present Value in Accounting Measurements (SFAC7). According to the FASB [SFAC7 Highlights]: "This statement provides . . . general principles that govern the use of present value, especially when the amount of future cash flows, their timing, or both are uncertain . . . [and] a common understanding of the objective of present value in accounting measurements", yet it leaves unattended (as is the case with SFAC5) the pressing issue of identifying the measurement attribute in financial accounting.

Measurement is the essence of relevance. To measure, a single attribute, which corresponds to the structure of the observed phenomena, has to be identified. In the absence of a single measurement attribute (e.g., recoverable cost), a mixed model would be the result from the use of divergent measurement attributes as described by the FASB in SFAC5.

In a work that establishes accounting as an empirical science, the measurement attribute - recoverable cost - is derived from three axioms: society, administration, and periodicity [Salvary 1989,58]. It is held that: "Production and consumption provide the basis for investment . . . [and] Given the capital budgeting model as the frame of reference, recoverable cost represents a real world function--resources committed to production. It embodies the recovery process. *Absent recovery, there is no investment*. Every model of investment can be embedded in a model of recoverable cost, and recoverable cost is model consistent with respect to investment" [Salvary 1992,239]. Recoverable cost is a reflection of the nominal monetary amount that would have been invested to attain the benefits, expected to be derived from or to be delivered to constituents. The concepts of recovery and matching constitute a unified measurement process that permits a state description of the accounting entity via the attribute of recoverable cost [Salvary 1989,89].

The business organization, which is a conduit that receives cash to implement a plan in order to generate cash, is confronted with three sequential decisions: *entry*--what specific assets are to be acquired, *use*--what are the specific use(s) of the assets, and *exit*--when should the assets be disposed. Since survival is the primary concern of the organization, recovery of the money invested is an imperative. After the management of the firm has implemented its plan, financial accounting begins to measure the cash flow being generated by the firm. Corresponding to the three sequential decisions in the investment process, there are *three measurement rules*: (1) present value - entry decision, (2) lower of cost and market value - use decision, and (3) realizable value - exit decision [Salvary 1992,251-264]. These measurement rules are necessary to determine for a given period the amount of resources: (1) recovered, (2) consumed, and (3) recoverable. They

spell out the assignment of numerals for the recovery concept. "All costs which are not recoverable are de facto consumed in the current period. Only costs that are recoverable are to be carried forward to future periods" [Salvary 1989,89-91].

The apparently diverse valuation rules, which have emerged over time to deal with the heterogeneous nature of assets, give the appearance of a mixed model [Salvary 1985;1989;1992]. "The different valuation rules . . . are the means of establishing an estimate of the aggregate recoverable cost of investments as of a specific point in time. . . . In each and every situation (cost, lower of cost and market, and realizable value), one is looking at a measurement to arrive at the estimated recoverable amount of an original invested sum of money" [Salvary 1992,264]. The application of the diverse measurements are necessary to reflect (measure) the recoverable amount of the money invested which is represented not by one homogeneous grouping of assets but by a heterogeneous grouping of assets [Salvary 1992,264]. *At the present time these rules are not seen in that light and, unfortunately, since they are being used in a random fashion, a mixed model is the end result.*

In financial accounting, after the organization has made its decisions, the observer/measurer is not concerned with whether: (a) the investments are organized or disorganized (rational/optimal or irrational/suboptimal); (b) the managers are fully informed or uninformed of the optimum path; or (c) the managers should be disinvesting instead of investing. As long as the investment is undertaken, the estimated recoverable cost is to be measured in each reporting period.

Implicitly, the FAPC accepts the foregoing view of financial accounting. The FAPC maintains that accountants should provide only the facts and the analysts are to undertake the necessary analysis of the financial accounting and market data [Knutson and Napolitano 1998,176]. Furthermore, the FAPC stressed that: (1) there are many things that should not be forced into the financial statements because they rightfully belong in supplementary schedule; (2) financial statements should contain only factual data and should be accompanied by supplementary schedules; (3) recognition and measurement standards must focus on what is real and reflect accurately and completely the substance of

exchanges and other economic events; and (4) new standards should provide information about the firm that could not have been estimated by outsiders [Knutson and Napolitano 1998,172-175].

XI: CURRENT VALUE, SIGNALS, AND FINANCIAL ANALYSIS

The information dissemination process (which includes accounting information) interacts with specific market structures, and prices are generated. The totality of this interdependency permits economic agents to adapt production and consumption decisions on a continuous basis, though not instantaneously, to an ever-changing environment [Goldman and Sosin 1979,30-31]. In this setting, one obvious role of the capital market (financial sector) is to transmit signals to the commodity market (real market).

While a signal such as current/fair value information can aid in the assessment of plans, the ex post calculus of financial accounting provides a general state description of the entity. In this regard, a general picture of the firm can be obtained from the information content of recoverable money stocks, money claims, money flows, and the attendant consequences. Accordingly, financial accounting information is vital for capital market price formation.

Indubitably, any one of many attributes may be used as the measurement attribute in financial accounting. However, when the appropriate attribute is used, there can be no objections to the disclosure of other values (in a note to, or parenthetically in, the financial statements) as long as they serve some useful purpose to readers. For the normal business firm, unlike a presentation of the firm's budget, most of those values have significance primarily for the firm's management (exit value) and competitors, particularly those interested in a take-over (replacement cost, capital market value, and exit/breakup value). It should be clear that such disclosures serve as signals to specific interests when conducting *financial analysis*. With respect to management, such information is extremely valuable within *specific decision contexts entertained by managerial accounting.*

"If management chooses to *use* rather than *sell* the assets under its control, it is fairly obvious that the risk accepted and return to be calculated for the purpose of risk-

sharing among suppliers of finance can only be based upon the decision to use rather than to sell. Financiers can only share in the actual result, whatever it happens to be. Unequivocally, exit [fair market] value is a decision variable which management has to consider, and which it does consider within the realm of managerial accounting. Once the decision is made to use rather than sell, projection must focus on the benefits from asset's use and not possible gains from asset's sale. Under conditions of asset's use, the recoverable amount of money is the desired attribute, and it is that attribute which is measured even when current market value is used as in the case of investment companies. . . . [T]he use of market values in the case of investment companies is simply [due to the fact] *that the risk-sharing arrangement calls for the investment companies to sell and redeem their shares at the realizable value at the end of each trading day of the portfolio held.* In that situation no use value exists to the investment companies; *the investment companies merely act as an intermediary . . . between the individual investor and the securities market.* In this situation, the recoverable amount is the current market value, since that is the amount that the individual would have received or paid for the holdings, had the individual been trading for his/her own account in the open market" [Salvary 1985,54-55].

It is necessary, at this time, to emphasize that due cognizance should be given to the fact that: "[w]hen one is *using the output* of financial accounting for analytical purposes (except in the case of the attest function), one is no longer in the realm of financial accounting. Manipulation of financial accounting data for credit analysis for loans, bankruptcy prediction, etc., removes one from the realm of financial accounting. *The output of financial accounting is input for financial analysis; and financial analysis is part of managerial accounting*. When cognizance is not given to this subtlety, confusion abounds!" [Salvary 1985,30,32].

XII: IMPLICATIONS FOR POLICY MAKERS AND ACADEMICIANS

There is a difference between the pricing of a future cash (nominal money) flow stream and the measurement of that cash flow as it emerges. As stated earlier, *financial*

accounting is not financial analysis. In the capital market setting, financial analysis is undertaken to enable the pricing of future cash flows. *The function of financial accounting is to measure the actual cash flow processes of the firms and the function of the capital market is to place a price on the future cash flow processes of those firms whose shares are traded in the equity securities marke*t. *The plans which firms execute and the consequences which are measured in nominal money terms constitute observable phenomena that are to be measured and recorded by financial accounting.*

Investment is a dynamic process where time and timing are critical factors, and the element of uncertainty adds to the risk of the undertaking. The current/fair value approach for financial accounting is confronted with the methodological problem of modeling time in financial accounting theory. Since investment requires a gestation period, the omission of time from the accounting model is contrary to the condition necessary for investment.

The economic space occupied by the firm in time *t* is captured by financial accounting information--*historical financial reporting*; whereas, the economic space to be occupied by the firm in time *t+1* is projected by managerial accounting information--*prospective financial reporting*. Thus, phenomenal observations of financial and managerial accounting constitute two separate space/time relationships. Financial accounting information is the major input for evaluation of actual performance in managerial accounting, and such evaluated data provide a basis for prediction/projection. The information sets are complementary and are jointly needed to enable sound assessments of actual performance and the generation of informed predictions of future performance.

The FASB [*Summary of Statement No. 142*, 2001b] justified, in part, the issuance of SFAS 142 on the grounds that financial statement users do not regard goodwill amortization expense as being useful information in their analysis of investments. Unequivocally, financial accounting information has to correspond with the observed reality of organizational activities, hence, *financial accounting standard setters* should not engage in finding means to generate data for financial analysis. There is a very large corps of financial analysts who are employed by a host of financial information

intermediaries that are engaged in this type of activity. Furthermore, *financial accounting standard setters* do not need to know the market reaction to accounting information to determine what should be measured and how it should be measured. What is needed most is a re-examination of the concepts of measurement and to ensure financial accounting information is in accord with observed accounting phenomena. While it will not eliminate aggressive behavior on the part of capital market participants due to overly optimistic sentiments,[5] sound accounting information, generated in accordance with measurement theory, will enable the capital market to arrive at proper stock prices.

Evidently, there is implicit recognition by accounting practitioners [Special Committee on Financial Reporting 1994] and financial analysts [Association for Investment, Management, and Research 1997] that performance evaluation and prediction are not identical and should be treated separately. Furthermore, business leaders (some having recognized the significance of the Balanced Scorecard) are using non-financial information that drive future performance along with the established financial measures to effectively manage their organizations, and are disseminating such information to their investors and other key stakeholders [Upton 2001; Canibano et al. 1999]. Consequently, only *academicians remain as the individuals who are perturbed by the lack of predictive information in financial statements* and as a result question the relevance of financial statements.

Since actual performance and prediction of future performance are not in the same time frame, evaluative and predictive information cannot be combined in one measure. Likewise, the replacement of evaluative information in financial statements with the predictive (future oriented) information violates the concept of measurement. A measurement can only be made of that which has happened and not of that which is expected to happen or hoped for.

The significant difference between capital market valuation and financial accounting measurement re-enters the picture. That is, a constant earnings stream can take on any value since the valuation process (rate of discount and the investment period) is dependent upon: (1) the intensity of the use of money and (2) the liquidity position of the

suppliers of money capital. Therefore, to alter the basis of the constant (the recoverable amount of a sum of money invested) in financial accounting is to destroy the information on the structure of the system by incorporating the nature of the change (e.g., interest rate). Knowledge of the structure (the feedback information on committed finance necessary for re-specification of the predictive model) and knowledge of the nature of the change in conditions (marginal conditions in the use of money) affecting the structure are necessary for decision-making.

In recognition of the current and urgent need for predictive information. This paper recommends the inclusion of managerial accounting information as a separate and distinct part of financial reports In so doing, both evaluative and predictive information (which should be appropriately identified) will be made available to analysts and the investing public. The availability of both evaluative and predictive information should result in a reduction in the current level of market uncertainty and should lead to increased efficiency in the setting of proper prices in the capital markets.

XIII. CONSIDERATIONS FOR FUTURE RESEARCH

Since trading friction and execution cost are negligible, the trading in interest rate instruments is highly liquid and millions of dollars of arbitrage profits can in an instant change hands if there is any inconsistency in contemporaneous prices [Poon and Granger 2003]. Evidence of this scenario has been witnessed with Long Term Capital Management where billions of dollars vanished into thin air in that case. That development forced the Federal Reserve to step in to stem the tide of that massive meltdown [Edwards 1999,197-198].

In addition, insurance, by virtue of its risk sharing and risk reducing functions, plays a critical role in the financial system and the real economy. It is a crucial national and global industry. Historically, life insurance companies have used accounting systems that relied on an amortized cost approach to valuing assets and liabilities. Currently, the search is on for an international fair value accounting standard. Of great concern is the fact that: “[a]n accounting framework should be descriptive with regard to the underlying realities of the lines of business in which a firm is engaged, the accounting model should

not itself be the vehicle which shapes business decisions. Much of the industry opposition and concern . . . has been the fear that implementing fair value standards would result in either: (1) radical reshuffling of lines of business; or (2) complete withdrawal from certain lines of business [the extinction of a certain line of business]; or perhaps (3) cause unwanted changes in portfolio investment decisions" [Fore 2003,1,3,4].

It is important to note that in the banking industry there is documented changes in investment portfolio management to reduce the volatility in reported capital and influence reported earnings through the recognition of gains on security sales. Some potential problems have been identified: (1) Due to the shortening of the maturity of the investment portfolio, bank holding companies may experience a reduction in the interest income earned and an increase in their interest rate risk. (2) The cost of managing liquidity and interest rate risk may increase due to the reduction of the flexibility to sell securities from the held-to-maturity portfolio. (3) The availability of credit may be decreased as banks may be unable to meet increases in loan demand due to the reduced flexibility in liquidity. (4) The banking industry may become more volatile due to increased exposure to changes in interest rates [Beatty 1995,38].

The desire for the use of fair (market) values in financial statements has to be viewed in context of the fact that financial accounting measures the profitability of a firm, whereas changes in stock prices (capital market return) is a measure of the profitability to the shareholder of the firm. Stock prices are subject to instantaneous re-pricing given changes in the interest rate. Given that there have been several capital market booms with subsequent busts resulting in serious financial meltdowns, recognizing changes in values that are ephemeral can result in firms experiencing significant dislocation when the recorded change in values do not materialize.

Undeniably, Statement of Financial Accounting Standards 115: Accounting for Certain Investments in Debt and Equity Securities (SFAS115) [1993] is an improvement over Statement of Financial Accounting Standards 12: Accounting for Certain Marketable Securities (SFAS12) in the treatment of debt securities and clearer terminology and treatment for classification of debt and equity securities. The problem it created is the abandonment

of a very important feature of SFAS12 - the application of the lower of cost and market valuation which had been coupled with the disclosure feature for market values. The disclosure about market values under SFAS 12, which had been provided in the notes or parenthetically in the body of the balance sheet, was useful information for the purpose of *financial analysis* to readers of the financial statements. Importantly, while the readers were informed that the firm had experienced an appreciation in the value of marketable securities, there was no insinuation that the firm had benefited from the market appreciation. It was left to the readers to provide their own interpretation of this information.

Any change in either direction of market participants' rate of discount or expectations of future earnings will produce a re-pricing of claims in the capital market. While firms' cash flows have not changed, the market prices of the shares of those firms will change due to the re-pricing. Currently, by including the unrealized gains in the market values of the "trading" securities as a component of operating income, SFAS115 adds "noise" to the income statement. The inclusion in the financial statement of changes in market values do not represent cash flow measurements but the volatility of instantaneous re-pricing of marketable instruments that takes place in the capital market.

XIV. CONCLUSION

In the analysis presented, the theoretical foundation of financial accounting as outlined is not based upon purely arbitrary human decisions. As in any science there are certain inescapable arbitrary aspects (e.g., terms); but beyond that, one is essentially dealing with a sequential logic deduced from facts about the socio-economic system. This logic is not mere convention since it reflects a dynamic process: social adaptation in a time continuum. Given the element of effective choice, the measurement of profit using replacement cost or exit value negates the time element in human choice. The point can be made quite clear when one recognizes that there exists: (1) a premium for risk taking (pioneering); (2) barriers to entry (start-up costs, increased factor costs due to increased demand for resources); and (3) the pervasive problem of the availability of money capital.

Indubitably, there is a recognition of the urgent need for more information about a company's operating strengths and future plans. Apparently, there is a general consensus

that while there are deficiencies in financial statements that need to be addressed, the real solution to the information dilemma does not rest in current/fair value accounting. It is intimated by the comments of the various stakeholders that the solution lies in an expansion of the disclosure process to accommodate a host of different types of information that are critical to an understanding of a firm's current position and of its future prospects. Importantly, the management of many organization have responded to the perceived need of more and better disclosures.

(a) ***Acknowledgement*:** My sincere thanks I wish to extend to an unanimous reviewer for the useful comments that were helpful in refining this paper.

ENDNOTES

1. An isomorphism signifies that two groups are structurally the same even though the names of and notation for their elements are different. Two mathematical objects are isomorphic if they have the same structure. For every component of one there is a corresponding component of the other. Source: *Free On-line Dictionary of Computing*.
2. The collapse of Long-Term Capital Management, a major player in the market for derivatives, quite vividly confirms the point made by Shubik and Whitman. In February 1994, Long-Term Capital Management (LTCM) was formed as a hedge fund with $1.3 billion of equity. Over $100 million of this money was contributed by the general partners of LTCM. A minimum investment of $10 million was required of each investor, and no withdrawals were permitted for three years [Siconolfi 1998]. The fund returned to its investors after fees 19.9% (1994), 42.8% (1995), 40.8% (1996), and 17.1%(1997). With an equity of about $7.5 billion in December 1997, the fund, due to diminished investment opportunities, returned $2.7 billion to investors. With an equity of about $5 billion at the beginning of 1998, the fund borrowed more than $125 billion dollars from banks and securities firms. By the middle of September 1998, LTCM suffered a loss of over $4 billion and its equity dropped to $600 million. By the end of September 1998, the equity of the 16 general partners of LTCM had dropped from $1.6 billion earlier in the year to $16 million. LTCM lost on its short term bets. Owing to the gravity of the situation, it was rescued by a consortium arranged by the Federal Reserve [Edwards 1999, pp. 197-198].
3. Office of the Comptroller of the Currency, Treasury; Board of Governors of the Federal Reserve System; Federal Deposit Insurance Corporation; and Office of Thrift Supervision, Treasury.
4. For the full development of recoverable cost as the appropriate measurement property/attribute in financial accounting, see Salvary [1985, pp.37-41; 1989, pp. 88-93; and 1992].
5. Shiller [2000] argues that 1990s stock prices displayed the classic features of a speculative bubble and investor enthusiasm rather than real fundamental factors temporarily sustained high prices. As per Shiller, investors believe that it is safe to purchase stocks, not due to their intrinsic value or expected future dividend payments, but because someone else will buy them at a higher price. Given similar beliefs of a large cross section of investors, stock prices are driven by a self-fulfilling prophecy.

REFERENCES

Afterman, A. B. SEC Regulation of Public Companies (Prentice-Hall, 1995).

Akhigbe, A.; Borde, S. F.; Madura, J. "Dividend Policy and Signaling by Insurance Companies." Journal of Risk and Insurance Vol.60, No. 3, 1993, pp. 413-428.

Anonymous. "Finance and economics: Fairy tale." Economist. London: Vol. 354, Iss. 8159, February 26, 2000, pp. 83-85.

Association for Investment, Management, and Research. Letter from Gabrielle U. Napolitano, CFA, Chair, Financial Accounting Policy Committee, and Ashwinpaul C. Sondhi, Subcommittee Chair, Intangible Assets. December 18, 1997. http://www.aimr.com/ advocacy/97commltr/intassets.html.

Balloo, R. "Re: Balance Scorecard & Six Sigma," BSC Forum. February 17, 2003 06:43. http://www.balancedscorecard.org/webbbs/config.pl?read=1765

Barth, M. E.; Beaver, W.H.; and Landsman, W.R. "The Relevance of the Value Relevance Literature For Financial Accounting Standard Setting: Another View." Journal of Accounting & Economics, Vol. 311, No. 3, September 2001.

Barth, M. E.; Landsman, W. R.; and Wahlen, M. A. "Fair Value Accounting: Effects on Banks' Earnings Volatility, Regulatory Capital, and Value Contractual Cash Flows." Journal of Banking and Finance, Vol. 19: 1995, pp. 577-605.

Beatty, A. "The Effects of Fair Value Accounting on Investment Portfolio Management: How Fair Is It?" Federal Reserve Bank of St. Louis Review, Jan/Feb. 1995, pp.25-39.

Bell Capital Management Inc. "Debate Raging on Value of Stocks - Different measures support each view." Wealth Management Insights, Vol.1, No.4, 2002.

Benjamin, J.J. and Stanga, K.G. "Differences in Disclosure Needs of Major Users of Financial Statements." Accounting and Business Research, 8, Summer 1977,p.187-192.

Bornemann, M.; Knapp, A.; Schneider, U.; and Sixl, K. I. "Holistic Measurement of Intellectual Capital." Paper at the International Symposium Measuring and Reporting Intellectual Capital: Experience, Issues, and Prospects. Amsterdam, June 1999.

Brennan, N. and Connell, B. "Intellectual Capital: Current Issues and Policy Implications." Journal of Intellectual Capital, Vol. 1, No. 3, 2000, pp. 206-240.

British Bankers' Association. "Preliminary Views on Major Issues Related to Reporting Financial Instruments and Certain Related Assets and Liabilities at Fair Value." Preliminary Views on Fair Value Measurement . . ., August 2000.

Business Week. "The Triumph of The New Economy." Business Week, December 30, 1996.

Butchvarov, P. The Concept of Knowledge. (Northwestern Univesity Press, 1970).

Canibano, L.; Garcia-Ayuso, M.; Sanchez, M. P.; Chaminade, C.; Olea, M.; and Escobar, C. G. "Measuring Intangibles: Discussion of Selected Indicators." Paper presented at the International Symposium Measuring and Reporting Intellectual Capital: Experience, Issues, and Prospects. Amsterdam, June 1999.

Cleary, S. "The Relationship Between Firm Investment and Financial Status." Journal of Finance, Vol. 54, No. 2, April 1999, pp. 673-692.

Colvin, G. "Buying Net Stocks? Read This First." Fortune, Jan. 24, 2000, pp. 150-151.

Daniel, K.; Hirshleifer, D.; and Teoh, S. H. "Investor Psychology in Capital Markets: Evidence and Policy Implications." Paper presented at Carnegie/Rochester Conference Series in Public Policy, University of Rochester, Rochester, New York, April 2001.

Daniel, K.; Hirshleifer, D.; and Subrahmanyam. A. "A Theory of Overconfidence, Self-Attribution, and Security Market Under- and Overreactions." Working Paper #98002. University of Michigan Business School, January 1998.

Demsetz, H. The Economics of the Business Firm: Seven Critical Commentaries. Cambridge, England; First Published 1995. New York: Cambridge University Press, 1997.

Daum, J. The New Economy Analyst Report - July 26, 2001. http://www.juergendaum.com/news/07_26_2001.htm.

Desmet, D.; Francis, T.; Hu, A.; Koller, T. M.; and Riedel, G. A. "Valuing dot-coms." McKinsey Quarterly, Issue 1, 2000, pp. 148-157.

Dieter, R. and Sandefur, K. "Spotlight on Management's Discussion and Analysis: What Does the SEC Expect this Year?" *Journal of Accountancy,* December 1989, pp 64-70.

Division of Corporation Finance. *Current Accounting and Disclosure Issues.* U.S. Securities and Exchange Commission, Washington, D.C., August 31, 2001. http://www.sec.gov/ divisions/corpfin/acctdisc.htm.

Edwards, F. R. "Hedge Funds and the Collapse of Long-Term Capital Management." Journal of Economics Perspectives, Spring 1999, pp. 189-210.

Federal Reserve Board. "Risk-Based Capital Standards: Unrealized Holding Gains on Certain Equity Securities." 12 CFR Parts 208 and 225. (Regulations H and Y; Docket No. R-0982). http://www.federalreserve.gov/BoardDocs/Press/boardacts/1998/19980826/

FDIC. Risk-Based Capital Requirements for Commercial Lending: The Impact of Basel II. Federal Deposit Insurance Corporation, April 21, 2003. http://www.fdic.gov/bank/analytical /fyi/2003/042103fyi.html.

Financial Accounting Standards Board. Business Combinations: Purchase Method Procedures Summary of Tentative Decisions (Aug. 2001-June 4, 2003), June 19, 2003.http://www.fasb.org/project/bcpm_tentative_decisions.html.

_____. Statement of Financial Accounting Standards No. 142: Goodwill and Other Intangible Assets. Norwalk, Connecticut: Financial Accounting Standards Board, June 2001a.

_____. Summary of Statement No. 142: Goodwill and Other Intangible Assets. Financial Accounting Standards Board, June 2001b.

_____. Statement of Financial Accounting Concepts No. 7: Using Cash Flow Information and Present Value in Accounting Measurements. Stamford, Connecticut: Financial Accounting Standards Board, February 2000.

_____. Statement of Financial Accounting Standards 115: Accounting for Certain Investments in Debt and Equity Securities, Financial Accounting Standards Board, 1993.

_____. Statement of Financial Accounting Concepts 5: Recognition and Measurement in Financial Statements of Business Enterprises. Stamford, Connecticut: Financial Accounting Standards Board, 1984.

_____. Statement of Financial Accounting Concepts No. 1: Objectives of Financial Reporting by Business Enterprises. FASB, 1978.

Fisher, F. M. and McGowan, J. J. "On the Misuse of Accounting Rates of Return to Infer Monopoly Profits." American Economic R*eview,* Vol. 73, March 1983, pp. 82-97.

Fore, D. "The Impact of Fair Value Accounting Standards on the Portfolio Composition of Life Insurance Companies." Working Paper 13-050103. TIAA-CREF Institute, 2003.

Fraine, H. G. Valuation of Security Holdings of Life Insurance Companies (Richard D. Irwin, Inc., 1962).

Fulcrum Financial Inquiry. "Goodwill Valuations - The Good, The Bad and The Ugly," February 27, 2003. http://www.fulcruminquiry.com/article17.htm.

Goldman, M. B. and Sosin, H. B. "Information Dissemination, Market Efficiency and the Frequency of Transactions," Journal of Financial Economics, Vol. 7, 1979, pp. 29-61.

Grebb, M. "Riding the Dot.Comet." Business 2.0, August 1999, pp. 71-77.

Hackney, D. "Data Warehouse Delivery: The Hidden Jewel." Data Management Review, October 1999.

Harrison, R. B. "The Corporate Report: A Critique." CA Magazine, December/January 1975/1976.

Holthausen, R. W. and Watts, R. L. "The Relevance of the Value Relevance Literature For Financial Accounting Standard Setting." Working Paper No. *FR00-05*. University of Rochester, September 2000.

"Indiana Telephone Corporation: Annual Report 1971." Financial Accounting Theory I: Issues and Controversies, 2nd Ed. Eds. S.A. Zeff and T.F. Keller. (McGraw-Hill, 1973).

International Accounting Standards Committee. Accounting for Financial Assets and Liabilities. Discussion Paper, 1997.

Jones, D. and Mingo, J. "Industry Practices in Credit Risk Modeling and Internal Capital Allocations: Implications for a Models-Based Regulatory Capital Standard." FRBNY Economic Policy Review, October 1998, pp. 53-60.

Kaplan, R. S. and Norton, D. Balanced Score Card: Translation Strategy into Action. (Harvard Business School Press, 1996).

_____. "The Balanced Scorecard: Measures that Drive Performance." Harvard Business Review Vol. 70, no. 1, January-February 1992, pp.71-79.

Kay, J. "What became of the new economy?" National Institute Economic Review, Iss. 177, July, 2001, pp. 56-69.

Keller, J. "The Evolving Business Reporting Model and Use of Performance Measurement Methodology." The CPA Letter, Vol. 83, No.3, April 2003.

Knutson, P. H. and Napolitano, G. U. "Criteria Employed by the AIMR Financial Accounting Policy Committee in Evaluating Financial Accounting Standards." Accounting Horizons Vol. 12, No. 2, June 1998, pp. 170-176.

Lazarony, L. "Credit Cards at Discount Retail Stores." Bankrate.com. http:www.bankrate.com/brm/news/cc/20010116b.asp. 2001.

Lewis, R. E. "Capital from an Insurance Company Perspective." FRBNY Economic Policy Review, October 1998, pp.183-185.

Logue, D. E. and Merville, L. J. "Financial Policy and Market Expectations." Financial Management, Summer 1972, pp. 37-44.

Lutz, F. and V. The Theory of Investment of the Firm. (Princeton University Press, 1951).

Napeague Letter. "Analysis of Current Market Trends." March 29, 2000. http://www.napeague.com/MarketTrends/Analysis-of-Mkt-Tr-3-29-2000.html.

Panzer, E. A. and Razin, A. "A Model of Investment Under Interest Rate Uncertainty," International Economic Review, October 1974.

Patel, H. "What's Ahead for Insurance Accounting?" Insurance Finance & Investment, http://www.wtexec.com/finance/IFI/ifiarticles/insacct.html 7/10/03.

Poon, S. and Granger, C.W.J. "Forecasting Volatility in Financial Markets: A Review." Journal of Economic Literature, Vol.41 No.2, June 2003, pp.478-539.

Puplav, J. J. "Trains, Planes & Dot Coms Revisited . . the end of an era." http://www.gold-eagle.com/editorials_00/puplava 122200.html, December 22, 2000.

Report of an SEC-Inspired Task Force. Strengthening Financial Markets: Do Investors Have the Information They Need? May 2001.

Randall, R. E. and Kopcke, R. W. "The Financial Condition of Insurance Companies: An Overview." New England Economic Review, May/June 1992, pp.32-43.

Reuters. "Scrutinizing Dot.Coms for Fraud." August 7, 2002. http://www.wired.com/ebiz/0,1272,5439,00.html.

Salvary, S. C. W. "The Accounting Variable and Stock Price Determination." Studies in Economics and Finance, Vol. 18, No. 2, June1998a, pp. 26-61.

_____. "Financial Accounting Measurement: Instrumentation and Calibration." Accounting Enquiries, Vol. 7, No. 2, February 1998b, pp.225-274.

_____. "On Financial Accounting Measurement: A Reconsideration of SFAC 5 by the FASB is Needed." Journal of Applied Business Research, Vol. 13, No. 3, Summer 1997, pp. 89-103

_____. "Recoverable Cost: The Basis of A General Theory of Financial Accounting Measurement." Accounting Enquiries, Vol.1, No.2, February 1992, pp.233-273.

_____. An Analytical Framework for Accounting Theory. Monograph #5. McQueen Accounting Monograph Series, (University of Arkansas, 1989). Reprinted by Stanversal Publishing, 2003.

_____. Accounting: A Library of Quantifications. Monograph #1. McQueen Accounting Monograph Series, (University of Arkansas, 1985). Reprinted by Stanversal Publishing, 2003.

_____. "On the Relevance of Share Turnover for the Valuation of Securities Portfolios in the Financial Reports of Non-Financial Corporations." Eastern Finance Association Annual Meeting, Washington, D.C., April 1979.

Schumer, C. E. "Central New York Retail Credit Cards Charge Higher Rates than Bank-Issued Cards." Press Release. http://www.senate.gov/~schumer/ SchumerWebsite/pressroom/press_releases/PR1381, 2002.

Shiller, R. J. Irrational Exuberance. (Princeton University Press, 2000).

Shubik, M. and Whitman, M. J. "Corporate Reality and Accounting for Investors." Financial Executive, May 1971, pp. 3-14.

Smirlock, M.; Gilligan, T.; and Marshall, W. "Tobin's q and the Structure-Performance Relationship." American Economic Review, Vol. 74, December 1984, pp. 1051-1060.

Special Committee on Financial Reporting. Improving Business Reporting - A Customer Focus: Meeting the Information Needs of Investors and Creditor, Comprehensive Report of the Special Committee on Financial Reporting, American Institute of Certified Public Accountants, 1994.

Sveiby, K. E. "Measuring Intangibles and Intellectual Capital - An Emerging Standard." http://www.sveiby.com.au/Emerging Standard. html. 1998.

Swaan, Tom de. "Capital Regulation: The Road Ahead." FRBNY Economic Policy Review Vol. 4, No. 3, October 1998, pp. 231-235.

Trevino, R. and Higgs, R. "Profits of U.S. Defense Contractors." Defence Economics, Vol 3, No. 3, 1992, pp. 211-218.

Upton, W. S. Jr. Business and Financial Reporting, Challenges from the New Economy. Financial Accounting Standards Board, April 2001.

USGAO. Financial Statement Restatements: Trends, Market Impacts, Regulatory Responses, and Remaining Challenges. (October: GAO-03-138). United States General Accounting Office. Washington, DC 20548, 2002.

Vickers, D. "Realism and Relevance in the Cost of Money Capital." Oxford Economic Papers, Vol. 30, No. 1, March 1978, pp. 102-16.

Weiss Ratings Inc. "Life and Health Insurers' Profits Plunge 61% in the first Nine Months of 2002, Lowest Level in Decade." February 26, 2003. http://www.weissratings. com/News/Ins_General/20030226lh.htm

WSRN.com. Wall Street Research Net. http://www.wsrn.com/apps/charts/ index.xpl?s