

**ACCOUNTING AND FINANCIAL REPORTING IN A CHANGING ENVIRONMENT:
HISTORICAL AND THEORETICAL PERSPECTIVES**

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ABSTRACT

Over time, a changing environment has produced changes in the types of accounting information and in the dissemination of such information (financial reporting). Certain changes in the environment do impel changes in accounting. This paper examines various theoretical issues in accounting in a historical setting and provides some insight on the manner in which the accounting profession has responded to problems.

1 - MODELING REALITY IN A CHANGING ENVIRONMENT

Accounting has been in existence for about ten thousand years. Token accounting emerged around 8,000 B.C. [Schmandt-Besserat 1986:36-37]. Three major functions characterized the token system of accounting: data storage, communication, and an instrument of logic [Schmandt-Besserat 1986:36]. Moving forward from Shurupak (2600 B.C.) to Lagash (2450 B.C.) in Sumerian civilization, one encounters the science of administration. Shurupak and its earlier ancestors are responsible for the development of the science of administration while Lagash is credited for implementing it. It is the science of administration which has enabled the continuation and further development of civilization [Lambert 1960:1-13].

Sumerian Civilization was a city civilization. It is nevertheless clear that priests regularly served as managers, planners and co-ordinators of the massed human effort . . . The priests alone possessed the skills of . . . keeping accounts, without which effective co-ordination of community would have been impossible. . . . Writing began in Sumer as a symbolic accountancy, used to keep records of goods brought into or dispatched from temple storehouses. . . . [W]riting was used for temple accounts, secondarily to record economic contracts between individuals, and scarcely at all for other purposes [McNeill 1963:32-58].

In 1933-1934, the Persepolis Fortification Tablets were discovered. These tablets, which are comprised of Achaemenid clay, constitute administrative accounting controls that were

exercised by the state over food commodities in Parsa, Persia during the period 509-494 B.C. While the Persepolis Treasury Tablets (another set of tablets dating from 492-458 B.C.) deal with payments primarily in silver, all of the Fortification Tablets deal with food commodities. Most of the latter tablets pertain to the distribution of: (1) rations for workers (monthly and daily), travelers, and animals; and (2) bonuses for mothers giving birth [Vollmers 1996:7-9]. Today the concern for physical quantities still lingers on, but the concern for financial capital flows is dominant.

While it is clear that the accounting model, which is continually being refined technologically, has a very long history; as an administrative information science [Salvary 1985;1979], accounting is no stranger to the various problems associated with the development of a science. Historically debates in accounting on *the appropriateness of the accounting model and realism in financial accounting measurement* are incessant. For instance, over time - and in recent years particularly with respect to the savings and loans associations debacle in the US [General Accounting Office 1989] - the term reality has been defined very frequently in various ways [Lee 1989:2-23; Nave 1993:64,68,69].

The aforementioned issues are examined within an evolutionary context, and concepts which are necessary and critical to the accounting model and financial reporting are identified. The rest of this paper consists of four parts: Changing Price Levels and Accounting Measurement, Financial Reporting to Business Reporting, General Comments on Financial Accounting, and Conclusion.

2 - CHANGING PRICE LEVELS AND ACCOUNTING MEASUREMENT

Prior to the 15th century, prices were established by custom and a unit of account (either solidus or mancus which were both measures in relation to an ox) was adopted [Cunningham and McArthur 1896:117,122]. While such prices were expressed in monetary terms, they constituted 'customary' prices (the money equivalent of payment in kind) and not 'competition' prices [Lees 1935:clxxxiii; Cunningham 1910:458-459]. Food rents were the earliest form of manorial revenue. By the middle of the twelfth century A.D., except for a few

sporadic food rent payments, the economy of the Bury St. Edwards manor was dependent upon money payments [Douglas 1932:cxxxi,cxxxiii]. While a change from “natural husbandry” to a “money system” began in the thirteenth century and was accentuated in the fourteenth century, there was no transition from a “natural economy” to a “money economy” [Davenport, 1906:48]. The transformation came in the fifteenth century when the use of money had become general. However, while the old forms of natural economy were eliminated, prices could be quoted in a money form but they were not yet determined simply by monetary considerations [Cunningham 1910:459].

With the evolution of the manorial system from a natural economy into a money economy [Lipson 1959:62,89,94,96,102] and an organized system of exchange [Page 1936:xxx], given a bit of imagination, the similarities between the modern multinational or multi-corporate establishment and the manorial establishment of the middle ages are quite noticeable. For instance:

Fornsett was one of a large number of East Anglian manors held by the Earls of Norfolk. From the chief seat of the Earls, at Fralingham, Suffolk, these manors were administered partly as distinct units, partly as members of one great estate. The local officers of Fornsett were in constant touch with the officers of the central administration and with local officers of other of the Earl's manors in Norfolk. . . . Thus the scattered manors, each with a fisc of its own, facilitated the payment of debts, while the necessity of transferring cash over a long distance was avoided [Davenport 1906:78].

Within this evolutionary setting, the world has experienced continued economic growth, and this paper focuses on the changes necessitated in the management and measurement of this economic growth.

2.1 - From a Sustenance Economy to a Surplus Economy: The Effect on Measurement

Historically, economic (social exchange) growth is defined as the increase in output in the current period over that of the prior period. In a sustenance economy, the accounting measure is in physical terms. Naturally, then physical quantities would be used to determine the growth of the economy. Currently in a money economy, the physical output of all

heterogeneous goods and services produced by the economic system is measured in money terms--nominal money expenditures and accounting transfers. Conversion of these money valued output by a price level index permit the measurement of changes in output over time. In this fashion, physical output, the basis of economic growth of the system, is measured. Output indices are developed exclusively using money and implied money terms [Dahlberg 1956:7; Greenberg 1961:149]. Clearly, indices are defined and applied because it is practically impossible to assess or compare complex or extensive systems of data [Eichhorn 1978:38-39].

Price level indices enable the construction of production indices in the absence of statistics on physical quantities. With these mathematical creations, one can assess physical output efficiency and physical input efficiency of the entire system. However, it must be recognized that physical productivity measures do not reveal consumer preferences, and it is the rate of return on nominal money which provides a clear indication of the efficiency of the financial flow system.¹ Output decisions in a money economy are conditioned by the rate of return on nominal money invested and not by physical factor productivity. The rate of return over cost (and its special variant - the marginal rate of return over cost) is a factor which influences the rate of interest [Fisher 1930:176]. The firm's utility function and the utility function of the individual members of society are expressed in a money metric.

After the production decision is made by the firm, the results are recorded. For the purpose of physical output comparison with prior periods, the price level index would be used to deflate the current period's output value, then a productivity index would be established by dividing the output value of the current period by the output value of the base period. Productivity indices answer questions pertaining to technological efficiency and the estimation of the level of technology employed on an inter-period and inter country basis. Is the financial profitability index erroneous? Should the financial profitability be adjusted by the price level index? Is the rate of return on nominal money invested an invalid index? In all cases, it is argued that the answer is No!

The price level index (a mental construct) is a function which maps one set of empirical observations into the set of real numbers satisfying a system of economically relevant

conditions. This index is a derived measure for the transformation of observed prices into fictitious 'constant price values' [Menges 1978:52]. Specifically, the price level index is a mapping from a financial flow system into a physical flow system. This mapping is undertaken to compare the physical outputs of two different time periods. While financial flows reflect consumers' behavior, consumer taste is not some physical constant which is invariant over time. Consumer behavior is influenced by psychological factors and not physical quantities. Consequently, in a money economic system, the investment decision is indifferent to the physical quantities, but highly sensitive to the rate of return on nominal money invested. While the two systems (the physical and the financial) are linked; they are not interchangeable. That is, a mapping from the financial flow system to the physical flow system does not permit the same interpretation.

The price level index as an economic measure is a function which maps empirical observations into the set of real numbers and satisfies economically relevant conditions. The form of those conditions is determined by the information to be derived from this mathematical creation. Similarly, in financial accounting, the information pertaining to an organization's financial behavior is conditioned by its decision process. This point is discussed below.

2.2 - Performance Measurement Vs Future Financing

The main argument in support of inflation accounting is that the information provided by current financial accounting reflects measurement with money values from the past. This argument leads to the conclusion that the use of *nominal money* as a measure of organizational performance is seriously flawed. It is argued that this measurement unit (nominal money) causes the erosion of capital to escape the attention of business managers [FASB 1979:para 124; Mosich and Larsen 1982:497-498; Morgenstern 1963:66; Business Week 1979:108-112], and that this condition is responsible for the inability of business enterprises to replace assets internally [Niehans 1978:127; FASB 1979:para.124]. The solution offered to correct the alleged deficiency in financial reporting is that financial accounting information should reflect operating performance using constant dollar and/or current cost accounting. In doing so, it is

maintained that the impact of inflation on the firm would be reported. In reality, the recommended solution to the *problem of future financing needs* is to alter the financial measure of performance in order to ensure the availability of internal financing for future asset replacement, which may or may not occur. While the concern for future financing is sound, *the issue of self financing should not impinge on performance measurement*.

Since the premise (the firm should retain earnings to satisfy possible future asset replacement) is embedded in managerial accounting considerations, the solution for possible shortfalls of internal funds for future financing needs should be addressed within the framework of managerial accounting (ex ante projection) and not be directed to the functions of financial accounting (ex post measurement). In the early 1970s, the deliberations of the Sandilands Committee [1975:107] reveal that this point (projection versus measurement) was fully recognized by the Institute of Chartered Accountants in England and Wales in 1949 with Recommendation N. 12 and reaffirmed in 1952 with Recommendation N. 15 as follows: "any amount set aside to finance replacements (...fixed or current assets) at enhanced costs should not be treated as a provision which must be made before profit for the year can be ascertained but as a transfer to reserve [an appropriation in the US]". Unlike the UK standard setters, the US standard setters do not recognize the ex ante projection/ex post measurement distinction.

2.3 - Standard Setters' Responses to Price Level Changes

On May 14, 1974, the Accounting Standards Steering Committee of the Institute of Chartered Accountants in England and Wales had issued SSAP 7 which required a supplementary Current Purchasing Power Statement [Sandilands Committee 1975]. That requirement was rescinded and replaced by SSAP 16 issued by the same standard setting body in March 1980. That standard provided for three options to include current cost accounting in each situation. SSAP 16 was rescinded in 1986. Similarly, in 1979, the Financial Accounting Standards Board (FASB) responded to the challenge by issuing Statement of Financial Accounting Standards (SFAS) 33, which provided for *constant dollar and current cost accounting information*.

The requirements of the Statement [SFAS 33] are expected to promote a better understanding by the general public of the problems caused by inflation. Statements by business managers about those problems are unlikely to have sufficient credibility until financial reports provide quantitative information about the effects of inflation [FASB 1979:ii].

It is noteworthy that both standard-setting bodies recommended current cost, while Johnson and Storey [1982:131], in accordance with Sprouse [1978], have stressed that "current cost accounting" deals with specific price changes; thus, it is incapable of reflecting anything about the effects of inflation. (This condition obtains since changes in specific prices do not constitute a deficiency in the measuring unit - nominal money.)

Like the UK standard setting body, the FASB [1979:paras.138,139] was genuinely concerned with the need for some kind of 'inflation' accounting information:

The main purpose of investment by shareholders and others is to earn a return that is available, sooner or later, in cash to meet personal expenditures. ... Investors' need for *information about the purchasing power* associated with their investments can be met by the use of a "constant dollar" measuring unit. (*Emphasis added.*)

However, since each financier's budget is rarely likely, if ever, to be represented by the basket of goods and services which enter into the calculation of the Consumer Price Index, how can one justify measuring the impact of inflation on the business firm as a guide to the purchasing power associated with financiers' investments? This issue has been raised by Keynes [1930:54]:

It follows that Purchasing Power must always be defined with reference to a particular set of individuals in a given situation, namely those whose actual consumption furnishes us with our standard, ... [it] has no clear meaning unless this reference has been given.

Koopmans has pointed out that "if there is a money illusion it is individual price changes that do affect the individual's demand function for commodities. The price level does not directly come into consideration at all. Thus, in order to stabilize money in its accounting function we have to stabilize not the average price level as expressed in some index but only

the prices of goods entering the separate budget equations of every one of the individuals in the economy [Botha 1959:154-155]." In addition, Von Wieser maintained that "*to the individual consumer money will remain 'stable' if the prices of the goods which he/[she] buys do not change.*" However, "*a stabilization to every individual of money in its accounting function could only be carried out if all prices were kept constant over time, that is, if the price forming process itself were eliminated* [Botha 1959:155]." Therefore, any measure of the impact of inflation should be based on its effect on end consumers by relating their incomes to the changes in the specific prices that affect their specific baskets of goods and services.

Evidently, the most important information, which an individual household would like to get about price changes, is information on how the price changes have affected that household's standard of living [Eichhorn 1978:19]. The price index (synonymous with the cost-of-living index [Hasenkamp 1978:215]), which satisfies the information needs of the individual household, depends on: (a) prices of the base and comparison periods, (b) the utility function and the budget of the individual household during the base period, and (c) the utility function of the individual household during the comparison period. This index compares the individual household's budget of the base period with the smallest budget needed in the comparison period in order to satisfy that level of utility (standard of living), which was at best possible with the base period's budget [Eichhorn 1978:20]. Individuals, unaided by computers, are cognizant of their nominal money incomes and the nominal money prices of goods and services which enter into their basket of goods. Some information on the impact of inflation is presently being disseminated in the form of nominal money prices. However, at the present time not all of the individual's information needs are met.

While recommendations were made for the *alteration* of the financial statements of publicly traded corporations, the FASB acted cautiously and wisely. SFAS 33 did not alter the contents of financial statements; instead, it required the *addition* of information to be presented in the financial statements. The FASB maintained that SFAS 33 reporting requirements were experimental. The experiment was unsuccessful! Constant dollar accounting information was withdrawn by the FASB in 1984 with SFAS 82; finally, in 1986 what was left of SFAS 33 was

withdrawn with the issuance of SFAS 89. The withdrawal was based upon users' views and empirical studies which concluded that the information generated according to SFAS 33 lacks usefulness, because it simply is not meaningful [FASB 1986:paras.117,118,124,130; McDonald and Morris 1984].

2.4 - Purchasing Power and Inflation Accounting

Since specific price changes do not constitute a necessary or sufficient condition for inflation, current cost accounting is not inflation accounting.² Inflation accounting, as the means for measuring and reporting the impact of inflation on the enterprise, is concerned with the preservation of purchasing power. Some commodities are perishable (e.g., fish, vegetables); others which are not perishable may no longer be demanded (e.g. buggy whips); those that are still in demand are affected by the changes in technology and taste. These factors prevent commodity money from effectively transferring purchasing power over time. The ability to transfer purchasing power over time is unique to nominal money [Davidson 1972:62]. Therefore, any adjustment of the money value assigned in an exchange transaction (i.e., price) produces an alteration of the signal generated by the system.

The problem stems from the fact that purchasing power is considered an attribute of nominal money, whereas it is an attribute of commodities [Salvary 1993]. For instance, Myddleton [1984:20] based upon Gynther's view ("... money means something different to every entity, especially through time."): (1) confuses purchasing power with money; and (2) finds fault with the Sandilands' Report by accepting Gynther's view as an interpretation of the Sandilands Committee's position. As per Myddleton [1984:20], the Sandilands Report maintained that: "The 'purchasing power' of money is not an attribute of money quantifiable without a knowledge of what money is to be spent on." Since purchasing power is an attribute of commodities and not of money [Salvary 1993:156-157], the position of the Sandilands Committee is valid.

Constant Dollar Accounting. To preserve the physical quantity/financial flow relationship, the use of constant dollar accounting is advocated. The difference between the unadjusted measurement and the measurement obtained by holding the unit of measurement

constant would constitute the impact of inflation. If inflation (change in the general level of prices) is a monetary phenomenon and not due to the net effect of the realignment of changes in relative prices, then the unit of measurement--money--is not stable. However, it is changes in relative prices which alter the physical relation underlying nominal money (dollar/pound/franc) values, resulting in a lack of interperiod correspondence between physical quantity flows and financial volume flows.

If conventional financial accounting measurement causes management to be uninformed, then one would expect that empirical research on: (a) bankruptcy would reveal that financial statements adjusted for price level changes would be good predictors of firms that go into bankruptcy, and (b) dividend policy would reveal that firms are unaware of their future financing needs. The empirical evidence does not support such a contention [Norton and Smith 1979; Meyer and Kuh 1959; Brittain 1966; Rumelt 1974]. Nevertheless, these problems have intensified the concern for changes in financial reporting on the premise that financiers do not have the type of information which is necessary for a proper prediction of the firm's future potential.

3 - FROM FINANCIAL REPORTING TO BUSINESS REPORTING

While financial reporting has evolved *pari passu* with the organizational/institutional changes in society [Salvary 1979], currently it is deemed to be lagging. In October 1994, the Special Committee on Financial Reporting of the American Institute of Certified Public Accountants issued its report, *"Improving Business Reporting - A Customer Focus, Meeting the Information Needs of Investors and Creditors"*. There is now a push for "Business Reporting", which goes beyond traditional annual financial reporting [CPA Journal 1995:20]; however, it is simply in line with prior clamors for an extension of the disclosure process--an extension of current financial reporting. The proposed annual "business report" would make more information available than what is currently contained in the annual financial report; furthermore, this "business reporting" is closely related to the financial reporting requirements mandated by the Securities and Exchange Commission (SEC) of publicly traded companies.

In connection with the accounting model, the Special Committee [1994:94] concluded that while users would like to have more information, *they are not in favor of replacing the current accounting model with a value-based accounting model* because the conventional model provides: (1) users with 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) information that is reliable because the amounts are based on market transactions. Also, the Special Committee [1994:95] concluded that standard setters should continue to use a *mixed model*, whereby assets and liabilities are measured in financial statements at cost, lower of cost and value [market] and fair [realizable] value. However, it is the apparent diverse valuation rules in financial accounting which give rise to the appearance of a mixed model [Salvary 1992;1985].

The two primary recommendations for "improving the types of information in business reporting," offered by the Special Committee [1994:49-66] were: (1) A Comprehensive Model of Business Reporting, and (2) Understanding Costs and Benefits. The recommended disclosures of the Special Committee [1994:25] 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. This compartmentalization of data: (1) expressly identifies and separates evaluative data from predictive data, and (2) implicitly recognizes to a limited extent the more pervasive social function of accounting information--information about (a state description of) entities for all parties who are affected by their decisions. The Special Committee's recommendations, if adopted, should ease the current dissatisfaction with financial reporting. While the need for more timely information is always at issue, it is the difference between the information generated by financial and managerial accounting that is the greater concern as revealed by the Special Committee's report. The different information sets evolved over time with the changing needs of administration in a changing environment. However, despite an early plea in a practitioner forum for recognizing the differences between financial accounting and managerial accounting [Dombrowske 1965], confusion seems to persist.

3.1 - Public Policy and Accounting

In the thirteenth century, the manors were centers of rural employment and some of them were well managed estates, which were characterized by a sound system of administration and the annual rendition of accounts. At that time, the basic handbook of estate administration was by Walter of Henley--a Dominican friar. The test of efficiency emphasized in the handbook was profit and loss, and the need for profit making by the lords on their holdings (through rent charges or otherwise) was recognized by the Statute of Merton (1235) [Bennett 1938:189,191; Ashley 1912:271]. Essentially, the manor is the origin of the firm. With the letting out of the manors on a firm contractual basis, the function of organizing production was effectively separated from the function of risk-taking. The early days of the manorial system is essentially similar to the period of individual capitalism, in which the owner was the manager-accountant for the business. Subsequently, the later development of the manorial period is characteristic of security capitalism, in which the task of organizing the various activities of the firm is placed upon the shoulders of skilled salaried managers and the function of risk-taking is accepted by investors through the supply of finance [Ashley 1912:271; Cunningham and McArthur 1896:189; Lees 1959:xxxvi; Usher 1920:78,81].

As a direct consequence of the social evolutionary process, the capital market emerged to accommodate the financing of large scale operations; thus, the burden on the individual and invariably the inability of the individual to raise the massive amounts of financial capital were eliminated. With the advent of limited liability as a matter of public policy, the univision (single objective) approach to accounting information was altered. Decision-making (including performance evaluation) within the firm became separate and distinct from the measurement of the performance of the firm as a unit responsible to the suppliers of finance. The result was the emergence of *two distinct types* of information: financial accounting information and managerial accounting information, with the former being a major input for the development of the latter. These two information subsets are presented in two different types of accounting reports: (a) the *managerial accounting* report in which the firm is viewed as a set of subsystems, and (b) the *financial accounting* report in which the various subsystems of the firm

are viewed as an integrated whole. Finally, the dissemination of both types of accounting information for control, planning, and decision-making is the process of financial reporting.

Accompanying limited liability, also as a matter of public policy, was a disclosure process--financial reporting: mandatory communication with the suppliers of finance. In this environment, the *capital market* emerged to accommodate the intertemporal transfer of risks among suppliers of finance. With the capital market, a *pricing process* was established for the transfer of future cash flows for current cash. In this *pricing process*, financial accounting information, which provides for a *measurement of current earnings and residual money commitments*, is used as input to *estimate future earnings and residual value*.

3.2 - Organizational Dynamics, Decisions, And Accounting Information

In general, organizations follow a dynamic path. The dynamism is a consequence of uncertainty of the future which necessitates continuing adjustments at differing times due to over-estimates and under-estimates. While the organization is operational, it is in a continuous state of flux, and all stages (controlling, planning, executing, evaluating) are ever present simultaneously. This condition lends itself to an apparent quantitative homogeneity. It is as if the organization is static, and it seems that one (uniform) set of information is capable of depicting the entire spectrum which engulfs the organization. However, the organization is in a dynamic situation--a quantitative heterogeneity exists. Thus, the survival or continuation of the organization hinges upon management having knowledge of a series of values stemming from the same source (accounting) [Barton 1974:677-681], and the ability to select a course of action which permits recovery from over-estimates or under-estimates of asset financing or forecasting errors [Andrews 1979].

It is important to note that the decision facing the managers of the firm is entirely different from the decision facing that firm's investors [Churchman 1961:60; Haavelmo 1960:150; Machlup 1940:170]. These two groups of decision-makers are not homogeneous groupings, and thus cannot be served equally well, if at all, with one information set; that is the type of values underlying the information will differ depending on the type of decision. The

dynamics of the management decision process (planning for change) dictate the type of information to be used; similarly, the passive nature of the financier's decision (selecting appropriate risk/return packages among the many such packages offered by the many management teams) dictates its own information set.

Accounting as constituted (the duality of accounting--financial accounting and managerial accounting as two distinct branches of accounting) enables a disentangling of the stages of organizational dynamics and permits a proper evaluation of organizational operation and proper decision-making. The two branches of accounting give rise to two distinct information sets (a subsystems approach with managerial accounting and an integrated or total system approach with financial accounting) [Salvary 1985] and two categories of financial reporting: internal and external.

3.3 - Disenchantment With Financial Reporting

With security capitalism, financial reporting was responsive to the new environment. Those who had advanced the finance were to be informed. Despite many periods with difficulties in financial reporting, there has been much success over the years. In recent times, however, financial reporting has not kept abreast of changing conditions. Currently, financial statements constitute the major part of financial reporting, and at times financial statements are equated with financial reporting. *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. Furthermore, as they are constituted, financial statements shed light on existing output capability, but are not intended to predict the future prospects of an enterprise [Chambers 1976:85]. The information content of financial statements is input for a predictive model [Salvary 1985; 1989:30-32]; it is "feedback on disappointments".

When managerial accounting is overlooked or ignored, financial accounting will be accused of shortcomings which are not real. Furthermore, managerial accounting information is being sought after but through the medium of financial statements. Invariably, financial statements are accused of not delivering information which financial accounting from a

systemic standpoint cannot deliver without altering its construct, information content and functions. But why should financial accounting be altered to deliver what managerial accounting delivers? "To ask financial statements to address . . . issues [not capable of being addressed in financial statements] would result in their trying to do two things and accomplishing none" [Haber 1989:13].

Presently, investors, as one major user group, have become disenchanted with financial reporting due to the fact that financial statements are not a predictive device. Investors' specific information needs relate to prediction of future prospects; hence, they need additional information which is not contained in financial statements but in financial reports generated under managerial accounting. The most logical approach to this information problem would be for external financial reporting to include both financial and managerial accounting information, with proper recognition of the separate and distinct functions of financial and managerial accounting. Given the multi-functions of accounting data (for controlling, planning, and evaluating), the information sets should be clearly separated in the external financial report to remove the possibility of confusion--what has been accomplished from what is expected.³ The processing and communication of different information sets are imperatives given: (1) the broad social function of financial accounting and (2) the different roles and time horizons of decision-makers (operators of business) and financiers (suppliers of money capital). Failure to recognize the broad social function of financial accounting information and the necessary distinction between types of decision-makers and between types of information can be highly debilitating to the efficient functioning of the economy.

Although the FASB [1978: para.27] does explicitly state that managerial accounting and financial accounting do exist, it de-emphasizes this difference in favor of an internal/external financial reporting difference. It is quite possible that, because of managements' resistance to include more of managerial accounting information in annual financial reports, the FASB chose to emphasize the distinction between internal and external financial reporting. Evidently the duality of accounting, which became explicit with finance capitalism to accommodate the need for general information (characterized by reliability and neutrality), and evaluated data--

information tailor-made for specific decisions (characterized by relevance and reliability) [Salvary 1985], is ignored. Consequently, although performance evaluation and prediction are not identical, there is the demand for the combination of evaluative and predictive information in one measure.⁴

In *Statement of Financial Accounting Concepts No. 1: Objectives of Financial Reporting by Business Enterprises* (SFAC 1) [FASB 1978], the 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. It is a lack of conceptual clarity which has perpetuated the lingering failure to draw the necessary distinctions between information sets (evaluative/feedback and predictive/feed-forward).

In terms of historical time, financial and managerial accounting constitute measurement and prediction processes of static (unchangeable) and dynamic (changeable) conditions respectively. Indubitably, a state of being (actual occurrence) is quite different from the possibility of becoming (possible occurrence). It is quite possible that at times to be informed of a particular state of being is all that is required, and at other times to be informed of the possibility of becoming is all that is required. Invariably, to be informed of both conditions is most useful, since a proper evaluation of the possibility of becoming would necessitate having knowledge on the given state of being from which this possibility of becoming is deemed possible. The distinction is not trivial!

4 - GENERAL COMMENTS ON FINANCIAL REPORTING AND ACCOUNTING

Financial reporting is a disclosure process and the information generated by the two branches of accounting constitutes the major part of financial reporting. In its limited form of internal reporting, financial reporting has been in existence and evolving for as long as accounting has been in existence with planning in Sumer in the third millenium B.C. [Lambert 1960]; whereas, its extended form of external reporting emerged and gained importance with the adoption of the joint stock company (the corporation) in the eighteenth century A.D.

[Shannon 1954:358; Edwards 1938:2-3] and the revocation of the “Bubble Act” in 1825.

The function of financial reporting is to make publicly available information which concerns stewardship (e.g., what resources are under control of the organization, and the consequence of their past use) and management's planning (e.g., what are the future plans for the controlled resources, and how prior mistakes will be avoided) [Beaver 1978]. In the manorial period, the reporting was for internal purposes and not to the public. The bailiff, who was the chief executive officer of the manor, rendered an account of his stewardship and would usually ask for his discharge on his last day to leave the manor. The rendition of account annually was the custom on well managed estates. Provision was made at the beginning of the account--the term used for financial report--for the name of the manor, the year of the king's reign, and the official who made the presentation of the account [Bennett 1938:166,188].

Currently, 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. There is no doubt that external financial reporting can be extended to include an innumerable variety of information about the current capability of an organization; and at a minimum, it should include managerial accounting information. However, to provide complete information on an organization would of necessity require that financial reporting draw upon other disciplines (e.g., psychology, sociology, economics, etc.). Clearly, external financial reporting can include all types of information provided that: (1) users are willing to pay for the cost, and (2) such extended disclosures shall not expose the entity to risk of injury.⁵

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 the disclosure 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. This information is to enable users of the financial reports to assess whether past performance will be altered by these factors. Dieter and Sandefur [1989] maintain that management's business plan for the upcoming year provides the information needed to satisfy the SEC's requirement. However, extension of the data may include short-, intermediate-, and long-term budgets, and a host of soft data; and such 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].

This study postulates that the inclusion of managerial accounting information in financial reports would reduce the current level of uncertainty and should lead to increased efficiency in the setting of proper prices in the capital markets. Evidently, the Special Committee's [1994] specific recommendations are in line with prior suggestions. The additional disclosure concerns management's critical evaluation of firm performance and future direction. The added information is presently being used by management; and much of it is already provided to some users such as banks. Management has been (and still is) reluctant to disclose such information to the general public [Chandra and Greenball 1977]. While accountants can only encourage management to disclose but cannot mandate disclosure, the AICPA [1989] has been encouraging management and continues to encourage management to make such disclosures [Special Committee 1994].

While the Special Committee [1994] expressly identifies and separates evaluative data from predictive data and implicitly, in a limited sense, recognizes the more pervasive social function of accounting information (information about a state description of entities for all parties who are affected by their decisions), unfortunately however, like the FASB [1978], the Special Committee stresses only investors and creditors [1994:10]. In so doing the Committee relegates the broader social function of financial accounting to a secondary function at best.

4.1 - Characteristics of Financial and Managerial Accounting

The function of financial accounting is to capture and *describe an entity's state of being*;

accordingly financial accounting is embedded in a static theory. The function of managerial accounting is to deduce from the given state of being *and project the possibilities of becoming*; accordingly, managerial accounting is grounded in a dynamic theory [Salvary 1985]. For the purpose of analysis, performance measurement is equated with a state of being, and decision-making is equated with the possibility of becoming. Based upon logic, while tomorrow becomes today, today is today and not tomorrow; and tomorrow is never today but always tomorrow. Likewise, a state of being cannot at the same time be the possibility of becoming and vice-versa. So, when change is imminent, one cannot look at a description of a particular state of being and assume or expect it to be a projection of the possibility of becoming.

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 performance in managerial accounting, and such evaluated data provide the basis for prediction/projection.

Financial accounting identifies the resources (by classes) that are available for use by the organization, and provides the informational input for managerial control over those resources. Managerial accounting involves the planning process (evaluation of possibilities) and aids in control determination. Financial accounting (an abstraction of reality--a description or explanation of behavior) provides the information that constitutes the foundation for the planning process as embodied in managerial accounting [Yu 1976:47]. Managerial accounting provides evaluations and predictions (or projection) of behavior of the existing foundation (asset structure) to determine which desirable plan of action is feasible. The foundation (as depicted by the statement of financial position) indicates the limitations imposed upon the organization. The plan (as shaped by decision models) focuses on the operating possibilities available to the organization, so that the limitations and the plan are interlocking [Barriere 1961:143; Kaldor 1961:150; Lamberton 1965:116].

While information derived from financial accounting (as input into managerial accounting) enables an organization to plan for change in the future, its past cannot be changed; thus, the financial condition and strategic posture of an organization is a historical fact. The thrust of financial accounting, as specified by static theory, is on measuring a type of kinetic financial energy. The measurement focus is upon *estimating the amount of cash flows derivable from existing investment projects*--the estimated recoverability of committed resources (in part the organization's risk exposure). Thus, financial accounting portrays the manner of past behavior in a uni-dimensional measurement, but it does not project the future.

Conditions (economic, political, and social) under which the organization had performed in the past are subject to change. Accordingly, the thrust of managerial accounting is on measuring a type of potential financial energy--organizational capability given internally and externally available resources. Thus, managerial accounting (with an ex post focus in the form of variance analysis) has primarily an ex ante focus. The information, which it generates, is in anticipation of probable future changes and their effect on the investment strategy of the entity: the deployment of resources and the method of operations to be applied.⁶ Since managerial accounting transforms static observations into a wide range of prospective considerations reflecting various amplitudes in a discrete manner: dynamic analysis, then the inclusion of managerial accounting information in financial reports can readily overcome some of the limitations of static analysis inherent in financial accounting.

Unequivocally, financial accounting generates information from the perspective of a conceptual framework (a firm sequence of thoughts entailing classification and valuation), but does not evaluate this information. It organizes perception into a closed system and the relationships identified are of prime significance--essentially, the articulation of all its parts introduces an element of *endogeneity - semantics*. Managerial accounting generates information from the perspective of cognitive models focusing on the ability to make change--an open system approach [Salvay 1979:375;1985:39-41]. Any relevant external factor can be considered, thus an element of *exogeneity* exists. Managerial accounting generates information/predictions about possible future states which enables the decision-maker

(management) to evaluate the considered alternatives - *signals* [Salvary 1985:49-50]. For managerial accounting, the term 'signal matrix' is characterized by a statement of available alternatives and their consequences given differing possible states of nature. A series of prices are presented along with a series of capital expenditure outlays, which in combination would provide a series of alternatives to be considered. While an array of alternatives is derived from this maze, each bit of information has relevance only in context of a specific plan.

Despite being highly informative, accounting information is not a complete representation of the organization. Both branches of accounting deal with abstractions of reality (partial observations motivated by purpose). Accounting information is an essential input into the decision-making process, but such information is of necessity modified by the other information inputs of the decision-maker's model [Ford and McLaughlin 1976; Hughes and Downs 1976; Lorie and Hamilton 1973:154; Wright 1964:72].

5 - CONCLUSION

Historically, from Sumer through the manorial estates, accounting information was generated for internal purposes. With the changing environment over time, the physical measurement attribute has been replaced by a financial measurement attribute and accounting information now serves both internal and external purposes. While more information is currently needed, the basis of the current problem lies in the philosophy of accounts--the view of financial accounting as a complete representation rather than as a partial representation. In reality, there are many information subsets comprising the total information system, and financial accounting is only one subset of accounting which in turn is but a subset of the total information system and one subset of the total financial reporting information set.

Unmistakably, financial reporting as a communication process can be limited or expanded. Given the changing environment, many users of financial statements want information that is essentially generated by managerial accounting. Over time financial reporting has responded to the changing environment. At this time, in order to satisfy users needs, financial reporting should incorporate managerial reports--the end product of managerial

accounting. In this setting, financial statements and managerial reports would constitute two information subsets of the external financial report. However, if the Special Committee's recommendation for the *inclusion* of managerial accounting information is adopted, then the term financial reporting should not be changed to "business reporting". That term should be reserved for a more comprehensive report involving extensive amounts of data of a purely statistical nature--business statistics.

ENDNOTES

- 1 Despite the limitations of current financial accounting information given the view that accounting standards are simply alternatives when more than one method exist, "[t]he ROI measure contains, or is correlated with, information that stock market participants deem important as to profit performance" [Jacobson 1987:477].
- 2 For a very good discussion of this point, see Johnson and Storey [1982:131].
- 3 Boulding [1970:62] gives a discussion of the relationship between past decisions and future choices.
- 4 The possibility of non-recognition of the distinction between financial and managerial accounting had been envisioned by Mattessich [1964:9,167], who pondered whether the profession would recognize a split between financial and managerial accounting.
- 5 What constitutes risk of injury must be viewed in light of benefits versus costs to society, i.e., information on patentable items may be injurious, whereas, information (disclosures) on share and/or composition of markets may be beneficial. The U.S. Census of Manufacturers takes this issue into account in gathering and disseminating manufacturing statistics.
- 6 For a discussion on the growing demand for future-oriented financial information and the role of such information in decision-making, see Koga and Robertson [1989:42].)

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