TRACING THE DEVELOPMENT OF A CONCEPTUAL FRAMEWORK OF ACCOUNTING A WESTERN EUROPEAN AND NORTH AMERICAN LINKAGE: A PARTIAL EXAMINATION

Stanley C. W. Salvary

Working Paper No. 40 August, 1979 The Academy of Accounting Historians - Virginia Commonwealth University, Virginia

"It is no fault of nineteenth-century theories, however, that they do not meet twentieth-century needs: a better criticism would be that twentieth-century needs are so poorly comprehended that we still try to make nineteenth-century notions suffice." [Littleton 1933, 217]

The Present Accounting Dilemma: Fable or Foible?

At the-present, the accounting profession is grappling with a problem, which it has identified as the need for a <u>conceptual framework of accounting</u>. This paper intends to probe at the problem and to suggest that a framework does exist. This framework has been painstakingly developed over centuries, and it is merely the profession's task to fine tune the existing conceptual framework because of the need for continual development due to changing conditions. This conceptual framework has never been laid out in explicit terms, consequently, it is continually overlooked.

The following conclusion arrived at by the vice-chairman of the Financial Accounting Standards Board [Sprouse 1978, 70-71] capsulizes the present situation:

A conceptual framework has been described as "a constitution," a coherent system of interrelated objectives and fundamentals that can lead to consistent standards and that prescribes the nature, function, and limits of financial accounting and financial statements.

For many accountants, the conceptual framework project. . . is difficult to come to grips with because the subject matter is abstract and accountants are accustomed to dealing with specific problems. In resolving those problems, accountants may unconsciously rely on their own conceptual frameworks, but CPAs have not previously been called on to spell out their frameworks in systematic, cohesive fashion so that others can understand and evaluate them.

.... It is essential that a framework be expressly established so that the FASB and those evaluating its standards are basing their judgments on the same set of objectives and concepts.

An expressly established framework is also essential for preparers and auditors to make decisions about accounting issues that are not specifically covered by FASB standards or other authoritative literature.

If the conceptual framework makes sense and leads to relevant information and if financial statement users make the necessary effort to fully understand it, their confidence in financial statements and their ability to use them effectively will also be enhanced.

No one who supports the establishment of a conceptual framework should be laboring under the illusion that such a framework will automatically lead to a single definitive answer to every specific financial accounting problem. A conceptual framework can only provide guidance in identifying the relevant factors to be considered by standard setters and managers and auditors in making the judgments that are inevitable in financial reporting decisions.

A Conceptual Framework of Accounting

Accounting is a <u>systemic information science</u>. Its function is to satisfy the <u>needs for</u> <u>particularized information</u> within a given environment. Such <u>environment</u> is a <u>state of</u> <u>being in an open system</u> - society. When such needs are satisfied by the systemic information, <u>the system will experience homeostasis</u> - a steady state of being. Being that the environment is within an open system, it is subject to <u>external influences which can and</u> <u>do disturb the existing homeostasis</u>. Due to disturbances, the steady state no longer will exist; <u>the system is then in a state of turbulence</u>. The existing systemic information no longer satisfies the needs of the environment. This <u>environmental change</u> - change in the state of being in the open system - is effectuated by a <u>certain stimulus or stimuli</u> which <u>generate(s) a</u> <u>need satisfaction response</u>. Being that the system is open, the <u>response is not automatic</u>, and when effected, it is not necessarily appropriate. The system, however, <u>will not revert to</u> <u>homeostasis until</u> such time as <u>the warranted response</u>, to adjust the existing systemic information.¹

The accounting conceptual framework is characterized by a <u>stimulus/response</u> network in which a <u>stimulus evokes a response</u>. <u>No response can precede a stimulus</u>. For the need satisfaction of the systemic information to be restored subsequent to a change

precipitated by a stimulus, each response must satisfy three conditions: 1) it must be adequately suited to the structure of the systemic information; 2) it must be consistent with the existing internal components (previously generated warranted responses) of the systemic information; and 3) it must satisfy the practical demands as imposed by the stimulus.

The systemic information of accounting is of two dimensions: financial and managerial. Each dimension satisfies a different need within the environment. Neither attempts nor should attempt to, in either event neither can, fill the role of the other. They both contain their own intrinsic properties, which overlap. However, their extrinsic properties which are conditioned by their intrinsic properties, are quite different [Garner 1968,215; Gonedes 1974,337].

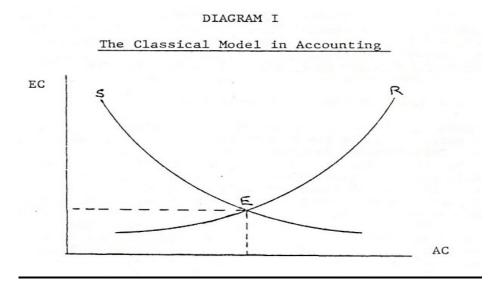
A Classical Model of Accounting: The Framework Expanded

Historically, the particularized information, which constituted the emergence of accounting, was embedded in a framework for control of human behavior. With the advent of exchange replacing a sustenance society, and with exchange ultimately producing a private economy, accounting derived its second, and in modern times considered its most important, function as a planning instrument.²

The <u>classical model</u> simply states that behavioral patterns do exist in the structural development of accounting; that is, given a stimulus there will be a response which is a direct reaction (an expected reaction) to that stimulus. One can relate this model to the classical model in economics, in which supply and demand for a commodity react in an expected manner due to a change in price.

Diagram I is a geometric illustration of the classical model. The special features of the model are:

- (a) Stimulus (S) = Demand; Response (R) = Supply
- (b) Equilibrium (E) = Stimulus = Response
- (c) Environmental Condition (EC) = Price
- (d) Accounting Concept (AC) = Product



A Test of the Validity of the Model

If the classical model does exist in accounting, then historical observations (see Table I) should bear testimony to its existence. The evidence to support this model is purely historical, however, no parallel should be drawn between this thesis (stimulus/ response) and Toynbee's [1946,88] line of inquiry: "Can we say that the stimulus towards civilization grows positively stronger in proportion as the environment grows more difficult?" Consequently, the criticism directed at his work should not. be considered even remotely as applicable to this inquiry [Walsh 1951,164-169].

On the other hand, only in the extreme can the accusation levelled at Kuhn [1962] be directed here, that the conceptual framework (classical model of accounting) as presented "may subsume too many possibilities under a single formula [Bochner 1966,137] ." More appropriately, this study is undertaken along the lines suggested by Enthoven [1973,21]:

Accounting has passed through many stages: . . . These phases have been largely responses to economic and social environments. Accounting has adapted itself in the past fairly well to the changing demands of society. Therefore, the history of commerce, industry and government is reflected to a large extent in the history of accounting.

What is of paramount importance is to realize that accounting, if it is to play a useful and effective role in society, must not pursue independent goals. It must continue to serve the objectives of its economic environment. The historical record in this connection is very encouraging. Although accounting, generally, has responded to the needs of its surroundings, at times it has appeared to be out of touch with them. The purpose of this line of inquiry is to put into perspective concepts which have emerged out of certain historical events. (In this treatise, accounting concepts are considered to be interlocking with accounting measurement and communication processes; thus, whenever the term concept is used herein, it is to be understood that accounting measurement and communication processes are subsumed under this heading.) These concepts collectively constitute, or at least suggest, a conceptual framework of accounting.

The classical model is postulated as follows:

For any given environmental state, there is a given response function which maximizes the prevailing socio-economic objective function. This response function cannot precede the environmental stimulus but is predicated upon it; when such response function is suboptimal, the then existing objective function will not be maximized. In a dysfunctional state, a state in which environmental stimulus is at a low level - a level below pre-existing environmental stimuli, disequilibrium would ensue. In any given environment, the warranted response may be greater or less than the natural or actual response. When environmental stimuli cease to evoke response, then the socio-economic climate will be characterized by stagnation as the least negative impact of disequilibrium conditions, and decline when such environmental stimuli are countercyclical.

Background of Approach

The historical path (Table 1), which this paper must take, is a direct result of the growth or development of civilization - Western civilization. The Middle East is the starting point because [the available archaeological evidence suggests that] the natural beginning of accounting is to be found in Mesopotamia [Keister 1968,12-20].

The main thrust or bulk of this paper revolves around the development of accountancy in Britain, while the U.S.A. is introduced at the end of the development of the model. The reason for this emphasis is due to the economic conditions prevailing in Britain and the role in industrialization which that country played from 1500 through 1930 [Kirkland 1969,441-444; Johnson and Kroos 1953,57]. "England was the first nation to experience the rise and development of security capitalism [Edwards 1938,48-49]." Capital formation in the U.S.A. in those earlier periods was via the banking system [Clews 1908, 176-179; Grant 1967,175; Hacker 1970,124; Kemmerer and Jones 1959,186,340,370]; thus, financial reporting was not a critical issue until 1929 with the 'Wall Street Crash' and the passage of the Securities Act of 1933 [Brief 1976,7-8; Chatfield 1974,126-127,130-135,

150-151,273-274; Edwards 1968,144-166; Previts 1976,45-51; Zeff 1974,1-2,316-318].

Joint stock companies can be traced back to 1553 in England [Johnson and Kroos 1953,45]; stock-jobbing of companies' shares were known as far back as 1688 in England [Wyckoff 1972,3].³ The first modern joint stock company (corporation), the East India Company was formed in 1600 [Cooke 1969,305; Bowden, Karpovich, and Usher 1937,38]. By 1720, the first major securities market crash in the history of modern civilization had occurred, at which time the "Bubble Act" was enacted to preclude further debacles. These events took place in England, despite the fact that the first organized trading in securities occurred in Antwerp - Belgium around 1602 and followed later by the Bourse in Amsterdam - Holland [Cooke 1969,305]. The London Stock Exchange was an active force by 1773. The New York Stock Exchange with a forerunner in 1792 - was organized in 1817, at which time it had listed four government securities and the Bank of America; by 1837, its listing consisted of ten banks, eight railroads, two trusts, two canals, and one gas company. The milestone for the New York exchange was 1871, it became for the first time a continuous exchange [Cooke 1969,305-310; Kemmerer and Jones 1959,182,185; Stedman 1905,19,62-63; Warshow 1929,338-340; Wyckoff 1972,6-8]. The milestone for securities trading in France - the French Bourse - was 1848 [Edwards 1938,48-49].

The historical time periods [Table 1] were selected to coincide with the changes in the environmental conditions and accounting responses. The emergence of an accounting response constituted the termination of one period; the beginning of the next period was thus established within a few years subsequent to the emergence of the accounting response to coincide with the end of the decade in which the response was experienced.⁴

No attempt has been made to determine if counter trends did exist; however, two observations from the German literature suggest a reinforcement of the findings in part:

1) The lower of cost and market rule was proposed in Germany in 1857, and was interpreted in The German Court in 1873, at which time the court held that the <u>going conern</u> was the basis for valuation as opposed to <u>liquidation</u> valuation [Gilman 1939,439]. This finding corresponds with Period 7 of this study.

		EVIDENCE ON	ENCE ON				CLASSICAL MODEL OF ACCOUNTING	NTING	
2		Environmental	al					0 1 1 1	Communication
Period	Era	Stimulus	State		Objective	tive	Response	Implied	Actual
1	BC 4000	Command over	Public Economy		Control	col.	Systemic Information		
	BC 701	Resources	Sustenance Economy	ance					
2	BC 700 to AD 1200	Exchange (Handicraft)					None	Balance Sheet	
3	AD 1201	Trade (Mercantile)		╞		+	Discontinuity	Balance Sheet	Balance Sheet
	to AD 1500						· (vencure)	Income Statement	
4	AD 1501	Adaptability		R			Continuity	Bulance Sheet	Balance Sheet
	to AD 1900	Trade	-> 1	XW		_	(firm) [Capital	and Income Statement	
	TOUD TOUL	(Entrepreneurat Capitalism)	. พ	10		/	Model]		
5	AD 1801	Mobility	01	N (->		Capital	As above	Balance Sheet
	to AD 1850	Industrialism (Security Canitalism)	N O	0 0	> 1		(Disclosure)		
9	AD 1851	Tractability	c	Е	0		Periodicity	Balance Sheet,	Balance Sheet
	to	(Return on Investment)	Е		Я	Ð	(Costing)	Income Statement,	
	AD 1870		С	TE	IN	N I	(Matching)	of Funds	
1	AD 1871	Shiftability	I	A	0	N	Objectivity	As above	As above
	to	(Return of Invested	I 8	Λ 1	2 <	N	(Realization)		
0	AD 1901		n	В	-	/ ¬	Verifiability	As above	Balance Sheet
o	to to	Retention Policy	đ	d (L d	(Auditing)		and
	AD 1920		<	-		<			Income Statement
6	AD 1921	Capital Market					Extension of	As above	As above
	AD 1970	Lattuces					Disclosure		
10	AD 1971	Corporate Social		-			As above	2	Balance Sheet
	to	Responsibility							Income Statement Sources and Uses
			_	-	_				

2) The importance of the income statement. - the dynamics of accounting - is ascribed to Eugen Schmalenbach in his works of 1916 and 1926 [Most 1977,307]. This finding corresponds with Period 9 of this study.

Selection of periods in general is suggested by most historic works, for instance the cut-off at 1850 by Gayer, Rostow, and Schwartz [1953]; another suggested cut-off is at 1500 by Freear [1977,3]. To illustrate specifically, the selection of the period 1801 to 1850 was guided by <u>financial</u> reporting as a response to widespread shareholding of the shares of joint stock companies. Financial reporting - 1844 - for external purposes would not have been important in the absence of the repeal of the "Bubble Act" - 1825 [Edwards 1938,14].

The Evidence: Prosperity and Boom

<u>Period 1</u> - From 4000 to 701 B.C., society was dominated by a public economy. The Chaldaean and Babylonian empires were characterized by state ownership of the means of the then existing state of production.

... In Mesopotamia. . . about 3,500 B.C. began a rapid elaboration of institutions, ideas, ceremonies, techniques, until by 3,000 B.C. or thereabouts, when decipherable documents permit more accurate knowledge of this ancient society, something already old, established, and in a real sense mature emerges for inspection; the civilization of the Sumerians . . .

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 effort would have been impossible.

In the early days. . . <u>a series of important inventions were either made or</u> applied extensively for the first time. . <u>Thereafter only minor improvements</u> <u>occurred</u>.

<u>This technological arrest no doubt reflects the stablization of the other</u> aspects of life. Once the temple communities had become firmly established and capable of organizing the production, concentration, and distribution of wealth by means of inventions like writing, . . . <u>all essential wants were</u> adequately provided for. <u>Life tended to settle toward a fixed and sacred</u> ROUTINE: and NO STIMULUS proved sufficient TO OVERCOME THE FORCE OF SOCIAL INERTIA.

If . . . we seek to discover the major lines of development . . . <u>clearly the</u> <u>central stimulus to new departure must be sought</u> in the political-military

sphere. . . [B]y the time of Hammurabi . . . <u>life had undergone far-reaching</u> <u>development in a</u> different direction calculated to sustain centralized and secular <u>authority</u>. . . .

Writing began in Sumer as a symbolic accountancy, used to keep records of goods brought into or dispatched from temple storehouses. Simple pictographs and a system of numerical notations served reasonably well for these purposes, except for difficulties which arose when it was necessary to denote personal names in order to credit and debit individual accounts. ... writing was used for temple accounts, secondarily to record economic contracts between individuals, and scarcely at all for other purposes.

Apparently it was the needs of centralized government that caused the scope of writing to expand.

... Written records, to which reference could subsequently be made, ... served to give coherence and scope to governmental action across wide distances and over long periods of time [McNeill 1963,32-58]. (Emphasis added.)

During this period, <u>command over resources was the environmental stimulus; the</u> <u>accounting response function</u> - the emergence of accounting - was <u>systemic information</u>. This response was unmistakably the warranted response and as such the objective function control - was maximized. Both steady state (homeostasis) and disturbance (disequilibrium) were present in this period.

The response function in this period paved the way for the emergence and development of the new empires.

<u>Period 2</u> - At the beginning of this period (700 B.C. to 1200 A.D.), state ownership began to loosen in the Grecian Empire and then in the next emerging Roman Empire. There was a shift from solid state ownership to a feudal system, with a sustenance economy. Only at the very end of this period were the feudal lords forced into parcelling out some of their 1ands [Brooklyn College 1960,60-61], thus enabling the emergence of an exchange economy.

At the end of the second period, though an exchange economy was emerging it was only in its embryonic stage, and as such was not then a sufficient stimulus to trigger the response function. It must be borne in mind that: (1) a significant part of this period is the "Dark Ages" - from about 476 A.D. to around 1075 A.D. [McNeill 1963]; and (2) that money was coined at the very beginning of this period (700 B.C.); however, money

substitutes were used as far back as 1000 B.C. [Leeming 1940,18; Head 1911,p.lxi; Bury, Cook, and Adcock 1926,124-126].

<u>Period 3</u> - The third period (1201 to 1500 A.D.) was clearly dominated by an exchange economy - interregional trade flourished. However, the lack of an organized capital market forced business operations to be somewhat sporadic [Powell 1916,3-4]. Capital being scarce, thus, those possessing such wealth moved their wealth around continually, from opportunity to opportunity, seeking in a rational manner to increase their wealth through regular planned returns [Brooklyn College 1960,107].

During this period, being that control over resources had been well established, planning became the point of emphasis in the accounting framework. <u>The concept of discontinuity (venture accounting) emerged as the response to the environmental stimulus of the ephemeral nature of capital in a trading economy.⁶</u>

Through venture accounting, the objective function of planning was maximized during this period. Planning took on two dimensions:

- Planning for investment strategies by owners of capital, who did not operate trading businesses but had partitioned their capital pools into economically advantageous units and parcelled them out on a short term basis, presumably maximizing returns and minimizing risks.
- 2) Planning by business operators, who had very limited capital and continually needed to avail themselves of capital. The business operation was venture, which upon completion resulted in a renegotiation for capital to once more undertake another venture. The refinancing of one venturer business operator was conditioned by the availability and attractiveness of other venturers, and the lack of any adverse conditions affecting the former pool of capital, which had been tapped to finance the previous venture [Brooklyn College 1960,107,108,323].

The objective function of planning for discontinuous operations (ventures) was accommodated by the emergence of Luca Paciolo's exposition on the *balance sheet* (Inventory), which constituted the initial planning document. The balance sheet permitted explicit communication on resources, and facilitated the flow of capital. The importance of the flow of capital was its role in the continued development of inter-regional trade.

Apparently, in this period, the *income statement* is an implied form, and not an

explicit form, of communication. The balance sheet, however, is an explicit form of communication at the very end of this period.

<u>Period 4</u> - This <u>period (1501 to 1800) is characterized by the emergence of the</u> <u>entrepreneur</u> [Hartwell 1971,297-304; Redford 1960,5], <u>risk-taker and organizer of a</u> <u>continuous operation, with financial needs due to business expansion</u> far in excess of his personal resources [Redford 1960,Chapter Four]. Such additional financing was only possible by establishing <u>an entity independent of the entrepreneur</u> with which financiers could identify.

<u>The accounting response, to the stimulus - the need of permanent or at least long term</u> <u>financing - was the concept of continuity</u>.⁷ The entity was perceived through the development of the capital model [Niehans 1978,125]:

Capital = Assets minus Liabilities

The evidence on the existence of this model is traced to 1543, reaffirmed in 1569 and firmly established in 1588:

Then gather the whole sum of your ready money, debts and goods and thereupon subtract the total sum of your creditors, and the remain is the net rest, substance or capital to be put in traffic.⁸

The effect of the development of this model is suggested by the following:

The English East India Company. . . was initially merely a special form of regulated company. Its initial voyages were financed by members in proportion to their confidence in the particular venture. Beginning in 1613, investments were invited to cover not one but a series of voyages. It was, however, not until 1657 that the company acquired a capital applicable not to one or to a specified number of voyages but permanently invested; periodic repayment of invested capital then ceased and dividends alone were payable [Brooklyn College 1960,323].⁹

The accounting response in this period - the *accounting concept of capital*, as developed through the accounting model, was dual edged in that it was a natural or warranted response to the environmental stimulus of the period and it paved the way for the effective functioning of the securities market in the trading of "units of capital."¹⁰

Period 5 - This period (1801-1850) is characterized by the rapid mobility of capital.

The formal recognition of the securities market was in 1773 [Morgan and Thomas 1969,68; Moulton 1938,213]. This market is the mechanism for the mobility of capital.

For capital to flow freely, the owners of capital need protection not from operating risks but from unwarranted dissipation of resources entrusted to the business operators. *Capital protection* through periodic reporting emerged. <u>This response of financial reporting</u> was the means by which owners of capital would have some degree of awareness concerning the state of their investment. <u>The accounting concept of disclosure (financial reporting on a periodic basis) was accompanied by another concept - capital maintenance</u>. These two concepts constitute the response function, which is made explicit in the British Joint Stock Companies Act of 1844. The concept of capital maintenance as developed within the accounting framework is different in terms of its objective from the concept of 'economic capital maintenance' as attributed to Sir John Hicks [1939] in *Value and Capital*.

In this regard, Hicks' [1969,133] caution cannot be ignored:

... most economic controversies about definition arise from a failure to keep in mind the relation of every definition to the purpose for which it is to be used. We have to be prepared to use different definitions for different purposes; and although we can often save ourselves trouble by adopting compromises, which will do well enough for more than one purpose, we must always remember that compromises have the defects of compromises, and in fine analysis they will need qualification. It is not profitable to embark on the fine analysis of a definition unless we have decided on the purpose for which the definition is wanted.

The purpose I have in mind is the measurement of the net social income.

The concept of continuity, which was developed in Period 4, implies 'permanence of capital' for a 'going concern,' and not the maintenance of 'economic capital,' to insure the continuous operations of the firm - not having to return the capital invested in the enterprise upon the request of those who have made the capital contribution to the enterprise [Lavington 1934,94-95]. Unfortunately, the influence of the literature in economics has had its impact in this instance on financial accounting, whereas, the true [meaningful] application of economic capital maintenance is in managerial accounting.

The economic concept of capital maintenance, "when the physical inventory of goods in the capital stock is unaltered, capital is maintained," [Pigou 1969,124] is a <u>concept</u> of economic capacity which is <u>internal to the firm</u>. The concept of <u>'capital maintenence</u>,

intended by the Companies Act of 1844, <u>is a concept of creditors' protection from share-holders' abuse which is external to the firm</u>.¹¹ It is a concept that is structurally consistent with the sound development of accounting theory.

The following passage embodies the theoretical underpinning of this accounting concept:

The corporation arises out of a collective credit transaction whereby funds supplied by the stockholders (shareholders) are entrusted to the corporation as a going concern to be administered for their benefit under certain specified limitations. The company so organized is, therefore, an impersonal incorporation of liabilities to the stockholders, and by employing these liabilities as collateral (formally or informally) it will then procure further capital by an issue of securities (debentures, typically bonds) bearing a stated rate of income and constituting a lien on the assets of the corporation. [Veblen 1923,90]

The application of this concept in practical business situations is revealed in the following passage:

In one case, in which an insurance company was held out to the public as having certain capital, it was stated that it would be fraud to declare a dividend out of that capital since such action would decrease the security of creditors - in this case policy-holders. In an attempt to pay 'interest' on capital, when there was no profit, another company met opposition by the courts on the ground that such action was against public policy, since the proposal 'is not in accordance with the contract entered into with the legislature on behalf of the public.' In a later case much the same explanation of the grounds for denying a dividend, construed as being out of capital, is given. Here the proposal was held to be <u>ultra vires</u>, since it would be equivalent to diverting capital from the objects of the business, and to reducing, by a part return to members, the fund which the creditors had a right to look to for payment. [Litt1eton 1933,15]¹²

However, the problem of the maintenance of 'economic capital' is a national or social income accounting problem; nevertheless, it has little significance for the development of financial accounting theory - in particular accounting theory as applied to the firm. The firm is a unit to which resources have been allocated, and from which resources can and should be withdrawn if and when necessary.

In terms of the individual, the concept of 'maintenance of economic capital' does apply. For an individual to receive a specified amount of income in perpetuity at a certain rate of interest, this case 'supposes the maintenance of the stock of capital assets intact' [Dewey 1965,13-14; Hicks 1946,172-175]. Here again, it must be recognized that this application of the concept is not applicable to the firm from a <u>financial</u> accounting standpoint for two reasons:

- 1) An individual is guaranteed to receive a specified sum by an agency (bank, insurance company, etc.); the firm is never guaranteed by its customers of price and quantity.
- 2) The firm's assets are serving a market, which means that its market can be eliminated [Walton 1966,177-200], consequently, the earning power of its assets can be terminated. Whereas, the individual's assets under the guarantee situation are indifferent to market conditions and as such their earning power are unimpaired except, of course, for cases of economic dislocations (depressions, catastrophes, etc.).

The concept of economic capital maintenance for financial accounting can only be valid if the roles of markets are to be relegated to secondary importance; that is the markets are unable in any form or fashion and to any degree to act as a displacement mechanism for inefficient firms.¹³ If the roles of markets (product and capital) are relegated to primary importance, with each firm being merely a participant in those markets - which is the rightful role in a market economy for the firm, then the concept of capital maintenance in the economic context is invalid for financial accounting, though - as has been mentioned earlier - valid for managerial accounting.¹⁴

In the accounting framework, maintenance of capital revolves around the mobility of capital. It is mobility of capital accompanied with limited liability that is critical to capital formation. The select committee on Joint Stock Companies in 1844 was motivated by these factors, and thus opted for legislation which would permit maximum freedom of investment tempered with reasonable measures for careful management [Clapham 1932,136; Edey 1969,231; Morgan and Thomas 1969,130].¹⁵

The impact of financial reporting (disclosure) on capital formation is quite formidable. Though joint stock companies date as far back as 1553 in England [Johnson and Kroos 1953,45], they were not a significant factor until the repeal of the Bubble Act [Shannon 1954,358].¹⁶ At the time of the institution of financial reporting in 1844, there were 944 joint stock companies, this number increased to 1,960 in 1856 and 2,479 in 1862

[Shannon 1954,379]. Capital formation was given a tremendous boost, because financial reporting permitted limited liability to become a reality: "investors could then invest safely and the full exploitation of the economic changes became possible" [Shannon 1954,358].

Capital maintenance for the purpose of this treatise on accounting theory, as established in 1844 and reaffirmed in the Companies Acts of 1856 and 1862, is a concern for the financiers of circulating and fixed assets [Redford 1960,183]. Both creditors and investors are to be protected via a monitoring system which accounting provides in the form of the balance sheet [Edey and Panitpakdi 1956,359].

<u>Period 6</u> - In this period (1851 to 1870), capital mobility was well established [Jenks 1927,237-240], <u>the environmental stimulus was 'return on capital invested</u>' in the capital formation process. Equity owners were desirous of receiving dividends; creditors, on the other hand, were concerned with the possible dilution (diminution) of the equity owners' contributed capital base which constituted their cushion of protection in adverse operating climates.

<u>This environmental stimulus, return on investment, evoked the natural accounting</u> response: periodicity - costing and matching. The Companies Acts of 1856 and 1862 mandated the periodicity of financial information (balance sheet), and specifically prohibited the payment of dividends other than out of profits [Edey and Panitpadki 1956,362; Freear 1977,13,16].¹⁷

<u>Costing</u>, the measurement of all activities in terms of outlays in cash or its equivalent, provided a consistent basis of measurement. <u>Matching</u>, the process of identifying those activities of a specific period that constitute revenue generating activities (identification of the benefits and identification of the sacrifices) as opposed to financing or other asset portfolio maximizing activities, provided the dividend information - periodic profit determination.¹⁸

Thus, the balance sheet provided an awareness of the capital invested and entrusted to the organization; whereas, the income statement provided the information concerning the dividend capacity, though not the dividend paying nor operating ability, of the organization. The statement of sources and uses of funds was introduced in this period [Most 1977,283]. The income [profit and loss] statement emerges in this period more as a control device, in

that it ensures capital maintenance from dividend diversion of capital [Pollard 1965,218].¹⁹ Despite its role as a control device in this period, the awareness of the income statement, and most likely of its use as a planning instrument, is found in the fourth period (1500 to 1800) [Pollard 1965,210-230]. The awareness seems to be as far back as the earlier part of that period:

... all consequences of that kind belong to the account of Capital Stock, and might justly be charged there, ... But because this would make a Huddle and a Confusion in that Account it is chosen rather to make an account of Profit and Loss express, which is mediate between the Traffic and the Capital Stock ... [Winjum 1970,747].²⁰

The effect of this accounting response was immediate in the financial reporting practice of the banking industry, and was well established by 1865. By further reinforcing the maintenance of capital concept, the Companies Act of 1862 - which held steadfastly to creditor protection by not providing means for the reduction of capital - enhanced the raising of capital in terms of both number and variety, and number and value of shares [Clapham 1932,342-360].

<u>Period 7</u> - This period (1871 to 1900) is characterized by an efficient securities market [Jenks 1927,245-248,327]²¹ and a banking system which directs the free flow of capital [Clapham 1932,343-385]. <u>The stimulus in this period is shiftability of investors - the return</u> <u>of invested capital (disinvestment in one enterprise for possible investment in yet another</u>). In part, the desire for the return of capital invested was due to the opportunities that were developing in the United States, based upon unlimited confidence and immense achievement [Clapham 1932,379; Cairncross 1953,229]. This condition constituted the true mobility of capital [Morgenstern 1959,17].

<u>The response was objectivity: objectivity in the determination of the investment base</u> for the purpose of establishing the amount attributable to divisible units (shares). The question of divisibility of capital for entry purposes presented no problem in the preceding period, but divisibility for exit purposes became a significant problem. In the absence of shiftability of ownership interest, the only concern is for <u>a return on</u> invested capital; but shiftability called for <u>a return of</u> invested capital as adjusted for any increment or decrement resulting from operations. Shiftability of capital owners is fundamental to and provides the viability of the securities (capital) market. However, falling prices [Morgenstern 1959,38,63,546,552,553; Clapham 1932,378; Parker 1969,244] - the instability of price movements in this period fostered the <u>division of objectivity into two subsets: realization and conservatism</u>.

<u>Realization</u>, a subset of the response of objectivity, provides for the recognition of only realized activities (asset transformations) in the matching process. It precludes the recognition of asset accretions which are external to the systemic information of financial accounting, but internal to the systemic information of managerial accounting. The role of the securities market cannot be denied; it is the securities market that will and should give recognition to asset accretion [Morgenstern 1959,508-510], which is ephemeral and completely out of the firm's control [Granger and Morgenstern 1970,7-16]. As in the case of bonds, intermarket transfers are effectuated to reflect these changes which are external to the firm. However, to the firm both the original principal and the nominal interest rate are unaltered.

<u>Conservatism</u>, a subset of the response of objectivity, provides for the recognition of asset diminution in the matching process in the absence of asset transformation, where such diminution is imminent. In that the balances appearing in the balance sheet reflect past sacrifices which have not as yet come to fruition. This concept (conservatism) is an attempt to reflect recoverable past sacrifices - that portion, if any, of all past sacrifices which have not as yet come to fruition; it is an attempt to determine if such past sacrifices will result in any fruition. This subset of the response is clearly consistent with previous response - capital maintenance,²² and at the same time with the practical needs of the systemic information as satisfied by the previous response of periodicity - costing and matching (in which case profit represents the residuum between past sacrifices and current exchange benefits) [Paton 1922,257].²³ The subset, realization, similarly satisfied the need for profit determination, while maintaining consistency with capital maintenance.

This response - objectivity - permitted the prediction of an income stream based upon the dissemination of information pertaining to an enterprise's operation. This factor virtually enhanced the valuation process of the securities (capital) market. The availability of accounting information led to the forerunners of the modern day capital asset pricing models by Irving Fisher [1906] and Erik Lindahl [1939]. The response - accounting concept of objectivity - in this period is of immense proportion, in that it rendered the functioning of the securities market more effective.

<u>Period 8</u> - In this period $(1901 \text{ to } 1920)^{24}$ the environmental stimulus was corporate policy of retaining a high proportion of earnings [Grant 1967,196-197; Kuznets 1951,31; Mills 1935,361,386-187]. This period is the beginning of corporate capitalism. The term 'corporate capitalism' is used because it emphasizes the role in capital formation which corporations have ascribed to themselves.²⁵

Hoarding of funds by corporations has reduced the role and importance of the primary equity securities market. The resource allocation process has been usurped by corporations [Donaldson 1961,51-52,56-63]. The implication of such a condition is accentuated in the following statement:

It is the capital markets rather than intermediate or consumer markets that have been absorbed into the infrastructure of the new type of corporation. [Rumelt 1974,153]

The hard empirical evidence of this condition was revealed by several tests of the Linter Dividend Model, which maintains that dividends are a function of profit, and are adjusted to accommodate investment requirements [Kuh 1962,48; Meyer and Kuh 1959,191; Brittain 1966,195; Dhrymes and Kurz 1967, 447].

Given the new role assumed by the corporation in capital formation, <u>the investment</u> <u>community (investing public) became concerned with the accounting measurement process</u>. <u>The accounting response was verifiability (auditing)</u> - to demonstrate the soundness of the discipline. Reproducibility of existing measurements had to be verified to satisfy the investors and creditors.

The Companies Act 1907 required the filing of an audited annual balance sheet with the Registrar of Companies [Freear 1977,18; Edey and Panitpadki 1956,373; Chatfield 1956,118]. Thus, auditing became firmly established. The function of auditing measurements is the process of replication of prior accounting.²⁶

Accounting is differentiated from other scientific disciplines in this aspect of replication. Replication is a necessary condition in sound disciplines, however, replication

is generally undertaken in rare instances. In accounting, on the other hand, replication is undertaken very frequently for specified experiments - business operations - at the completion of the experiments - business [operating] cycle. These experiments - business operations - cover one year; at the end of the year, the experiments are reconstructed on a sampling basis. Auditing is the process by which replication of accounting measurements are undertaken.²⁷ Publicly held and some privately held corporations are required to furnish audited annual financial statements which cover their business activities on an annual basis.

Period 9 - This period (1921 to 1970) witnessed the reinforcement of corporate retention policy. This condition shifted the emphasis of the investor to focus on the securities market in the hope of capital gains, because of the limited return on investment in the form of dividends. Indubitably, <u>investors' concern was shifted to market appreciation through stock price changes reflecting the earnings potential of the underlying securities</u> [Brown 1971,36-37,40-41,44-51]. With the securities market valuation of a company's share (equity) inextricably linked to the earnings per share, the <u>emphasis is placed on the dynamics of accounting as reflected in the income statement</u>. The Companies Act of 1928 and 1929 explicitly reflect this accounting response by requiring an income statement as a fundamental part of a set of financial statements [Freear 1977,18;Chatfield 1974,118]; although an audit of such statement was not explicitly stipulated, it was implied.

<u>The accounting response of this period is: 'extension</u> of accounting disclosure [Chatfield 1974,118;Blough 1974,4-17].²⁸ <u>The Wall Street Crash of 1929 and subsequent</u> <u>market failures constitute the environmental stimulus</u>. In the U.S.A., the Securities Act of 1933 and then the Securities and Exchange Act of 1934 were enacted, providing for a significant involvement of government in accounting.

<u>Period 10</u> - <u>This period is characterized by the social awareness that business as well</u> <u>as government must be held socially accountable for their actions</u>. Business can transfer certain costs to other segments of society, thus business benefits at the expense of society; and government can not only squander hard earned dollars but through its policies affect adversely the welfare of various segments of society.²⁹

This awareness is epitomized in the thesis posited by Mobley [1970,763]:

The technology of an economic system imposes a structure on its society which not only determines its economic activities but also influences its social well-being. Therefore, a measure limited to economic consequences is inadequate as an appraisal of the cause-effect relationships of the total system; it neglects the social effects."

<u>The environmental stimulus of corporate social responsibility</u> evoked the accounting <u>response of socio-economic accounting - a further extension of accounting disclosure</u>. The term socio-economic accounting gained prominence in 1970, at which time Mobley broadly defined it as "the ordering, measuring and analysis of the social and economic consequences of governmental and entrepreneurial behavior." Accounting disclosure was to be expanded beyond its existing boundaries - beyond the normal economic consequences "to include social consequences as well as economic effects which are not presently considered" [Mob1ey 1970,762].

Approaches to dealing with the problems of the extension of the systemic information are being attempted.³⁰ It has been demonstrated that the accounting framework is capable of generating the extended disclosures on management for public scrutiny and evaluations [Charnes, Co1antoni, Cooper, and Kortanek 1972; Aiken, Blackett, Isaacs 1975]. However, many measurement problems have been exposed in this search process for means to satisfy the systemic information requirement of this new environmental stimulus [Estes 1972,284; Francis 1973].

Welfare economics, as a discipline, has always been concerned with the social consequences of governmental and entrepreneurial actions,³¹ but the measurement and communication problems are, and always have been, that of the discipline of accounting [Linowes 1968;1973].

The process continues - stimulus and response!

The Evidence: Stagnation and Decline

The evidence of stagnation and decline, which was precipitated by lack of environmental stimulus, is to be found in the second period (700 B.C. to 1200 A.D.). The Dark Ages, which constituted a significant portion (about one third) of this period - from about 400 A.D. to almost the end of the period, was devoid of any accounting response; in

fact a deterioration of previous accounting responses.³² In the absence of environmental stimulus, disequilibrium in the classical accounting model is witnessed:

Gradually, for internal reasons. . . the fortified boundaries of the Roman Empire by the fifth century crumbled under the external pressure of Teutonic barbarians. Less influenced by Roman institutions and ideas than the Celts whom Caesar had subdued, the Germanic Kingdoms on Roman soil still strove to maintain, with ever diminishing success, the forms of Roman rule over the provincials. *In the course of five hundred years Western Europe declined, not to the level of pre-Roman days, but to the lowest form of societal organization it has ever known*. [Brooklyn College 1960,18;Levy and Sampson 1962,195]

This decline was halted by the environmental stimulus which was emerging at the very end of this period. The stimulus the decline of the feudal system; with the parcelling out of land by the feudal lords, an exchange economy was set in motion [Brooklyn College 1960,61].

The second period was characterized by a retrogression in accounting - a (possibly) disequilibrium response:

. . . Pacioli's double-entry did not grow out of single entry bookkeeping, the latter being a 'crippled' version of the former and of later date [Most 1972,726].³³

Indubitably, Pacioli's treatise was a restoration of a prior warranted response that had brought about growth and development of the Grecian and Roman civilizations.

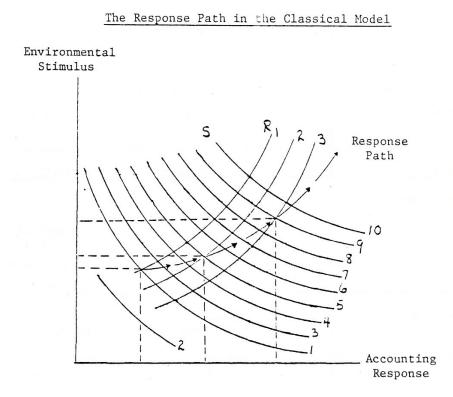
The position maintained by Sombart is supported by other works which maintain that double entry bookkeeping had been in existence at least during, if not prior to, the Roman Empire [Renfield 1957,7; Martinelli 1977,10]; and because of its soundness, it was able 'to survive through the Dark Ages or be revived early thereafter' [Littleton 1933,46]. Even the staunchest opponent of the early existence of double entry bookkeeping prior to the fifteenth century, indirectly and unintentionally, concedes to its existence in the days of the Roman Empire:

. . in accounts of the Roman period in general there is no really significant advance in the system of accounting: capital and income are still not properly separated; <u>the conceptions of credit and debit</u>, although they may seem to <u>make fitful appearances now and again</u>, . . . never actually materialize as permanent features of accounting. (Emphasis added) [Ste-Croix 1956,34]

Moments in the Classical Model

Diagram 2 depicts the moments (10) in the classical model. Each period is numbered accordingly so that the effect can be readily visualized in a graphical manner. The shift in the response curve from 1 to 2 is due to the U.K. governmental legislation (Companies Acts) affecting the response function; from 2 to 3, represents the effect of the U.S. governmental legislation (Securities Acts) on the accounting response function.

DIAGRAM 2



The Conceptual Framework: A Continuing Process

Presented above, the stimulus/response framework - exhibiting structural adequacy, internal consistency and implemental practicality - has demonstrated, unequivocally, its effectiveness over the centuries. The systemic information of financial accounting is the connective tissue of time in a financial perspective. The systemic information of managerial accounting is non-connective, but rather reflects events in a decision-making perspective. (See Table 2 for a perspective of accounting.)

TABLE 2 ACCOUNTING IN PERSPECTIVE

<u>Information</u>	<u>Managerial</u>	Financial
Constraints	Decision-Making	Stewardship
 Allowable Values Methods of Measurement 	Cognitive Models	Conceptual Framework
Types	Internal	External
 Stock (Static) Flow (Dynamic) 	Capacity (Resources) Budgets, Etc.	Balance Sheet (Invested Funds) Income Statement, Statement of Sources and Uses of Funds

To generalize at this time may be excusable. The accounting profession must give due cognizance to the fact that:

... The process of concept-formation is a special type of learning. . . The formation takes time and requires a variety of stimuli and reinforcements. . . The process is never fully determinate for even when the concept is well established it can suffer neglect or inhibition, and it can be revived by further reinforcement or modified by new stimulation. (Emphasis added.) [Meredith 1966,79-80].

A body of concepts and interlocking measurement and communication processes (types of information - stocks and flows; constraints on information - allowable values and methods of measurement; media of communication - quantitative and qualitative) has been developed over the centuries. This set of concepts and interlocking measurement and communication processes has emerged as responses to specific stimuli at specific points in time to satisfy specific information needs. It is this body of concepts and interlocking measurement and communication processes, which is subject to amplification and modification, that constitutes the conceptual framework of accounting. (See Table 3 for a comprehensive view.)

TABLE 3

A CONCEPTUAL FRAMEWORK OF ACCOUNTING

•

Income
c
Determin -ation
×
×
×
×
×
×
1

The viewpoint presented in this paper is an attempt to respond to the description provided in the opening passages of this paper - that is to lay out what can be considered as:

A <u>constitution</u>, a coherent system of interrelated objectives and fundamentals that can lead to consistent standards and that prescribes the nature, function and limits of financial accounting and financial statements. [Sprouse 1978,70-71]

Possibly, with other modifications or amplifications deemed necessary, the conceptual framework as presented above can serve as an "expressly established framework" to enable "preparers and auditors to make decisions," which would conform and be upheld, "about accounting issues that are not specifically covered by FASB standards or authoritative literature."

Final Comment

Some readers may state that this treatise is a rationalization of the relationship between certain historical events and accounting development; the fact that the historical patterns do support the thesis, this condition does not imply a proof of the thesis. In response, it must be said that the injection of accounting theory into actual historical events - the emergence of accounting concepts and interlocking measurement and communication processes - (the mutual relationships of accounting theory to other environmental conditions, as thus graded in adaptation), is merely the establishment of a reference to the status of accounting theory and of other environmental conditions in a space and time relationship.

In this treatise, an attempt has been made to establish the effect (accounting concept) given the cause (environmental condition). Hopefully, the approach used to execute the task is a valid line of inquiry. Apparently, the approach does have some support as the following passage reveals:

If the cause in itself discloses no information as to the effect, so that the first invention of it must be <u>entirely</u> arbitrary, it follows at once that science is impossible except in the sense of establishing <u>entirely arbitrary</u> connections which are not warranted by anything intrinsic to the natures either of causes or effects. [Whitehead 1925,4].

ENDNOTES

1 Accounting as a systemic information science is to be differentiated from the general class of needsatisfaction sciences, in that accounting generates information about the system as opposed to deriving functional relationship in order to devise means for need-satisfaction purposes. On the issue of needsatisfaction and society, see Johnson and Kroos [1953,2-3].

Accounting is concerned with the identification of the economic process [See for example: Lisle 1900,1; Paton and Stevenson 1916,13]. In other words: accounting describes "how spending units behave on the economy's market" Gurley and Shaw [1960,26]. In contrast, economics is concerned with the rational allocation of scarce resources [Gordon 1975,5]. It can be said that economics discovers and analyses "the hidden laws of ordination and integration in a free economy [Hiemann 1945,9]."

- 2 Control was established in the public economy since around 3500 B.C., therefore central planning is implied. However, in an exchange economy (which emerged around 1100 A.D. with the end of the feudal system) planning is decentralized, thus the role of planning is accentuated. For a lucid discussion on this difference in planning, see Hiemann [1945,7-9].
- 3 The term stock-jobber was first used then, however, the act of stock-jobbing would probably go back as far as the early part of the seventeenth century.
- 4 It would seem that any segmentation must be undertaken with a view towards the objective of the study (observation). As an illustration, see Winjum [1970]. Four periods appropriate to the study were established: (1) All of Antiquity to 1201; (2) 1202 to 1494; (3) 1495 to 1840; and (4) 1840 to the present.
- 5 See note 2.
- 6 There is clear cut evidence of this development in the study by Winjum [1972,84-85].
- 7 Discontinuity (venture accounting) as a concept was not superceded by continuity. They are both compatible and are not mutually exclusive. Today, as one illustration of the use of venture accounting, the completed contract method for construction contracts is used in those instances when the estimates of the percentage of completion are unreliable.
- 8 This statement is attributed to Hugh Oldcast1e (1543) as cited in the work of John Mellis (1588) [Winjum 1970,745-747].

"One of the earliest uses of the term capital as referring to the net worth of an individual or a firm" is attributed to James Peele (1569) [Winjum 1970,747].

- 9 For a further discussion of the implications of continuity, see Bowden, Karpovich, and Usher [1937,38].
- 10 A clear insight on this accounting/market effect is presented by Andrews [1949,11-13].
- 11 According to Gilman [1939,27]: "The Corporate form has influenced accounting by introducing the concept of permanent capital... because of its limited liability feature which introduced an important problem of credit granting."
- 12 A clear distinction between economic capital and legal capital is made by Littleton [1933,245-246].
- 13 Of course, the failure of both product and capital markets have been witnessed but they are not totally ineffective, at least the participants in those markets can react to reflect disagreement with existing conditions. For a full development of this point see: Williamson [1971,343-384], Arndt [1976,33-52], and Caves [1976,3-18].
- 14 Relegation of role being by efficient functioning of the markets and *not* by artificial design is intended. In an efficient market economy, both markets will ensure the continued existence of efficient firms; inefficient firms will be displaced by those markets, through their ability to provide and withhold financing on the one hand, and through increasing or withdrawing demand for the firm's product on the other hand.

- 15 In the U.S., Maryland was one of the first states to grant limited liability, and it did so in 1839 on the condition "that the company had not declared dividends in excess of profits" [Kemmerer and Jones 1959, 177].
- 16 There were 14 such companies in 1688, and approximately 150 by 1695 [Clapham 1949,270]. The Bubble Act of 1720 had precluded the sale of joint stock company shares; this action was not whimsical but was a direct consequence of the capital market abuses which had been experienced as a result of these continuous joint stock companies [Melville 1923,50-67].
- 17 The English courts had ruled in the early part of the seventeenth century on dividends, thus this codification was merely a formality which was necessary in implementing financial reporting [Brief 1976,20].
- 18 The Establishment of <u>matching</u> in this period is corroborated by Littleton [1933]. He stressed that "interest during construction charged to the capital asset and a provision for 'uncollectible accounts' were both contested and ruled proper in the English Courts in the 1860's" [Littleton 1933,218-219].
- 19 <u>Matching</u> reinforces the concept of the 'maintenance of capital.' A failure to reflect a proper depreciation charge or a failure to reflect obsolescence occurring in any period is considered a failure to comply with the 'maintenance of capital,' for such profit as calculated for that period could be higher than it should be, consequently the payment of dividend in total or in part out of that profit may in reality be a distribution of capital. For a discussion along this line, see Brief [1976,84-88,94-95,100].
- 20 This statement is a reaffirmation of James Peele's position (1553) as attributed to Roger North (1714). See Winjum [1970,747].
- 21 Efficient is not used here in the sense of the "efficient market hypothesis". Efficient in this case signifies that the securities market is functioning at a high level (trading volume and the number of listings firms) and with the benefit of available financial information pertaining to the companies of which shares were traded. This period is to be compared with the time of the passage of the Bubble Act (1720), at that time trading was conducted without the benefit of financial information [See Melville 1923,73-74].
- 22 For maintaining capital in this context, see Stanley [1965,67].
- 23 Some accountants have maintained that conservatism conflicts or may conflict with: 1) going concern (continuity) in that it may produce liquidation values; 2) disclosure in that stockholders may be denied the truth concerning the enterprise; 3) consistency in that cost or market is inconsistent with the cost basis; and 4) matching in that it precludes the application of matching costs with revenues. The chief exponent of the foregoing views is Gilman [1939,35]. Another exponent along similar lines is MacNeal [1939,50-52].

It must be borne in mind that conservatism was adopted in accounting as a modifying concept. Conservatism governs the measurement procedure in those instances in which the measurement risk (error in measurement) is very high or simply high. Conservatism is not a concept that advocates intentional understatement of assets and intentional overstatement of liabilities. On the contrary, it is a guide for action in light of highly dubious valuation; it is the insertion of objectivity as constrained or counterbalanced by feasibility in the measurement process. See: Stanley [1965,67-68; Brief 1976,56]. Furthermore, the example cited by those authors - lower of cost and market for inventory valuation - does not support their position as the following passage reveals:

"If market values have fallen. . . the costs expended on the stocks at the beginning of the next accounting year would be greater than the costs at which the business could then acquire similar goods. Now, it is essentially the purpose of the business to hold such goods for ultimate sale and to take the risks of the market. If they were carried at outlay-cost into the balance sheet at the end of the year, the next year would be saddled with what would be consequences of financial risks which were really incurred in the earlier period, and the year in which the business acquired them would be avoiding one of the costs of its having done so - the fall in prices that has taken place. .

. To value at market prices when prices are rising would falsify the cost position and cause the following year to be charged with costs which had not been incurred in fact . . . the accountant's rule here is a strict application of the logic of his principle of charging as costs the money outlays that have been incurred during any period."

This lucid theoretical exposition is that of Andrews [1949,41-42]. The reasoning set forth by Andrews is essentially an elaboration of the earlier position developed by Jacques Savary in 1712 [See Littleton 1933,152].

- 24 In this period, the linkage in the development of accountancy with the U.S. is established. At this point the U.S. economy is beginning to emerge as an industrial force. [Soule 1952,314-342; Kirkland 1969,441-444].
- 25 The term 'managerial capitalism' may be an appropriate alternative, however, this term has already been given an explicit and different meaning than that which has been ascribed to the term 'corporate capitalism' as used in this treatise. On 'managerial capitalism', see Marris [1971,270].
- 26 The audit function is to add credibility to the financial statements. The audit is essentially an examination of pertinent data and the accumulation of evidence to substantiate or refute the measurements as exhibited in the financial statements as submitted for audit. If the measurements are not in conformity with the expected measurements not in accord with accounting principles, the investing public is to be informed of this situation in the event the statements are not changed to reflect the proper measurements. See: Brown [1968,176-187] and Carmichael 1974,64-72].
- 27 As early as 1887, in a court decision, the judge maintained that 'it was the auditor's duty to inquire into the "substantial accuracy" of the balance sheet provided by management, not merely its arithmetic correctness [Chatfield 1974,116].
- 28 With the crash of the securities market in the U.S.A. in 1929, the initiative passed to the U.S.A. for the examination of the adequacy of disclosure [Freear 1977,20]. This response - "extension of disclosure' concept - did not supersede the modifying concept of conservatism. In fact this development is a happy union e.g. historical cost as carrying value and disclosure of market value when such exceeds the historical cost; market value as carrying value when such is less than historical cost; and disclosure of appraised values or current values.
- 29 The business literature is replete with cries for social awareness of corporate actions and governmental programs [e.g., Mobley 1970; Herbert 1971]. Furthermore, Churchman [1971,33] went further: "I believe the accounting profession should become deeply involved in helping society to measure the most critical aspects of social change of pollution, population, information, whatever." For instance some have considered social responsibility of business managers as the third phase in the assessment of business enterprise: phase 1. profit maximization; phase 2. trusteeship; and phase 3. quality of life. Social responsibility is equated with the 'quality of life.' See Hay and Gray [1974].
- 30 The Corporate Report in the U.K. by the Accounting Standards Steering Committee of the Institute of Chartered Accountants in England and Wales was praised by most newspapers for reflecting "the accountants' initiative in 'stepping outside'" their traditional boundaries and involving themselves "in a firm's relations with employees, government and society." See: "Institute Report" [1975,17] and McMonnies [1976].
- 31 This continued concern in economics is reflected in various works [Muskin 1972; Dansby and Willig 1979].
- 32 This period has been termed by some as "The Medieval Slump" [Levy and Sampson 1962,192].
- 33 This statement is attributed to Werner Sombart (1919) [Most 1972,726].

REFERENCES

- Aiken, Maxwell E.; Blackett, Lawrence A.; and Isaacs, Geoffrey. "Modeling Behavioral Interdependencies for Stewardship Reporting." *Accounting Review* (July 1975).
- Andrews, P:W. S. *Manufacturing Business*. Preface by Sir Henry Clay. London: Macmillan & Co. Ltd., 1949.
- Arndt, Helmut. "Power and Competition." Markets, Corporate Behaviour and the State: International Aspects of Industrial Organization. Edited by A. P. Jacquemin and H. W. DeJong. The Hague: Martimus Nijhoff, 1976.
- Blough, Carman G. "Development of Accounting Principles in the United States," *Contemporary Accounting Theory*. Edited by Eldon S. Hendriksen and Bruce P. Budge. Encino and Be1mont, California: Dickenson Publishing Company, Inc., 1974.
- Bochner, Salomon. *The Role of Mathematics in the Rise of Science*. Princton, New Jersey: Princeton University Press, 1966.
- Bowden, Witt; Karpovich, Michael; and Usher, Abbott Payson. An Economic History of Europe Since 1750. New York and Other Major Cities: American Book Co., 1937.
- Brief, Richard P. *Nineteenth Century Capital Accounting and Business Investment*. New York: Arno Press, 1976.
- Brittain, John A. Corporate Dividend Policy. Washington, D. C.: The Brookings Institution, 1966.
- Brooklyn College. *Source Book for History 1.1: History of Western Civilization*. Brooklyn, New York: Brooklyn College Press, 1960.
- Brown, Clifford D. *The Emergence of Inc.ome Reporting: An Historical Study*. MSU Business Studies. East Lansing, Michigan: Michigan State University,1971.
- Brown, Gene R. "Changing Audit Objectives and Techniques." *Contemporary Studies in the Evolution of Accounting Thought*. Edited by Michael Chatfield. Belmont, California: Dickenson Publishing Company, Inc., 1968.
- Bury, J. B.; Cook, S. A.; and Adcock, F. E. *The Cambridge Ancient History Volume IV: The Persian Empire and the West.* First printing 1926. Cambridge: Cambridge University Press, 1974.
- Cairncross, A. K. Home and Foreign Investment 1870-1913: Studies in Capital Accumulation. Cambridge: Cambridge University Press, 1953.
- Carmichael, D. R. "The Assurance Function-Auditing at the Crossroads," *Journal of Accountancy*. (September 1974).

- Caves, Richard E. "The Determinants of Market Structure: Design for Research." *Markets, Corporate Behaviour and the State, International Aspects of Industrial Organization.* Edited by A. P. Jacquemin and H. W. DeJong. The Hague: Martimus Nijhoff, 1976.
- Charnes, A.; Colantoni, C.; Cooper, W. W. and Kortanek, K. O. "Economic Social and Enterprise Accounting and Mathematical Models." *Accounting Review* (January 1972).
- Chatfield, Michael. A History of Accounting Thought. Hinsdale, Illinois: Dryden Press, 1974.
- Churchman, C. West. "On the Facility, Felicity, and Morality of Measuring Social Change." *Accounting Review* (January 1971).
- Clapham, J. H. An Economic History of Modern Britain Book III. Cambridge: Cambridge University Press, 1932. Reprinted 1963.
 - ______. A Concise Economic History of Britain: From the Earliest Times to 1750. Cambridge: Cambridge University Press, 1949.
- Clews, Henry. Fifty Years in Wall Street. New York: Arno Press, 1973. First Printing 1908.
- Cooke, Gilbert W. *The Stock Markets*. Revised Edition (Cambridge, Massachusetts: Schenkman Publishing Company, 1969.
- Corporate Report. "Institute Report." Accountancy (October 1975).
- Dansby, Robert E. and Willig, Robert D. "Industry Performance Gradient Indexes," *American Economic Review* (June 1979).
- Dewey, Donald. Modern Capital Theory. New York; London: Columbia Univ. Press, 1965
- Dhrymes, Phoebus J. and Kurz, Mordecai. "Investment, Dividend and External Finance Behavior of Firms." *Determinants of Investment Behavior*. Edited by Robert Ferber New York: National Bureau of Economic Research, 1967.
- Donaldson, Gordon. Corporate Debt Capacity. Boston: Harvard University, 1961.
- Edey, H. C. "Income and the Valuation of Stock-in-Trade." *Readings in the Concept and Measurement of Income.* Edited by R. H. Parker and G. C. Harcourt. Cambridge: Cambridge University Press, 1969.
- Edey, H. C. and Panitpakdi, Prot. "British Company Accounting and the Law 1844-1900," *Studies in the History of Accounting*. Edited by A. C. Littleton and B. S. Yamey. London: Sweet & Maxwell Limited, 1956.
- Edwards, George W. *The Evolution of Finance Capitalism*. London; New York; Toronto: Longmans, Green and Co., 1938.
- Edwards, James Don. "The Antecedents of American Public Accounting." *Contemporary Studies in the Evolution of Accounting Thought*. Edited by Michael Chatfield. Belmont, California: Dickenson Publishing Company, Inc., 1968.

- Enthoven, Adolf J. H. Accounting and Economic Development Policy. Amsterdam; London: North-Holland Publishing Company. New York: American Elsevier Publishing Company, Inc., 1973.
- Estes, Ra1ph W. ".Socio-Economic Accounting and External Diseconomies." *Accounting Review* (April 1972).
- Fisher, Irving. The Nature of Capital and Income. New York: Macmillan Company, 1906.
- Francis, M. E. "Accounting and the Evaluation of Social Programs: A Critical Comment," *Accounting Review* (April 1973).
- Freear, John. "Historical Background to Accounting." *Current Issues in Accounting*. Edited by Brian Carsberg and Tony Hope. Oxford: Philip Allan Publishers Limited, 1977.
- Garner, S. Paul. "Highlights in the Development of Cost Accounting." *Contemporary Studies in the Evolution of Accounting Thought*. Edited by Michael Chatfield. Belmont, California: Dickenson Publishing Company, Inc., 1968.
- Gayer, Arthur D.; Rostow, W. W.; and Schwartz, Anna Jacobson. *The Growth and Fluctuation of the British Economy 1790-1850*. Vol. II. Oxford: Clarendon Press, 1953. Hassocks: The Harvester Press, 1975.
- Gilman, Stephen. Accounting Concepts of Profit. New York: Ronald Press Company, 1939.
- Gonedes, Nicholas J. "Efficient Capital Markets and External Accounting." *Contemporary Accounting Theory.* Edited by Eldon S. Hendriksen and Bruce P. Budge. Encino and Be1mont, Ca1ifornia: Dickenson Publishing Company, Inc., 1974
- Gordon, Barry. *Economic Analysis Before Adam Smith: Hesiod to Lessius*. London: The Macmillan Press, Ltd.; New York: Harper & Row Publishers, Inc., 1975
- Granger, Clive W. J. and Morgenstern, Oskar. *Predictability of Stock Market Prices*. Lexington, Massachusetts: D. C. Heath and Company, 1970.
- Grant, A.T.K. A Study of the Capital Market in Britain. 2nd Ed. London: Frank Cass, 1967.
- Gurley, John G. and Shaw, Edward S. *Money in a Theory of Finance*. Mathematical Appendix by Alain C. Enthoven. Washington, D.C.: The Brookings Institution, 1960.
- Hacker, Louis M. *The Course of American Economic Growth and Development*. New York; London; Sydney; Toronto: John Wiley & Sons, Inc., 1970.
- Hartwell, R. M. *The Industrial Revolution and Economic Growth*. (London: Methuen & Co. Ltd., 1971.
- Hay, Robert and Gray, Ed. "Social Responsibilities of Business Managers." Academy of Management Journal (March 1974).
- Head, Barclay V. *Historia Numorum: A Manual of Greek Numismatics*. Chicago: Argonaut Inc., Publishers, 1967. Reprinted from the 1911 edition.

Herbert, Leo A. "Perspective of Accounting." Accounting Review (July 1971).

Hicks, J. R. "Maintaining Capital Intact: A Further Suggestion." *Readings in the Concept and Measurement of Income*. Edited by R. H. Parker and G. C. Harcourt. Cambridge: Cambridge University Press, 1969.

__. Value and Capital. 2nd Edition. Oxford: The Clarendon Press, 1946.

- Hiemann, Eduard. *History of Economic Doctrines: An Introduction to Economic Theory*. London; New York; Toronto: Oxford University Press, 1945.
- "Institute Report." Accountancy (October 1975).
- Jenks, Leland Hamilton. *The Migration of British Capital to 1875*. London; Toronto; New York and Other Major Cities: Thomas Nelson and Sons, Ltd., 1963. Alfred A. Knopf, Inc., 1927.
- Johnson, E. A. J. and Kroos, Herman E. *The Origins and Development of the American Economy: An Introduction to Economics.* New York: Prentice Hall, Inc., 1953.
- Keister, Orville R. "The Mechanics of Mesopotamian Record-Keeping." *Contemporary Studies in the Evolution of Accounting Thought*. Edited by Michael Chatfield. Belmont, California: Dickenson Publishing Company, Inc., 1968
- Kemmerer, Donald L. and Jones, Clyde C. *American Economic History*. New York; Toronto; London: McGraw-Hill Book Company, Inc., 1959.
- Kirkland, Edward D. A History of American Economic Life. 4th Edition. New York: Appleton-Century-Crofts, 1969.
- Kuh, Edwin. Capital Stock Growth: A Micro-Econometric Approach. Amsterdam: North Holland Publishing Company, 1962.
- Kuhn, T. S. The Structure of Scientific Revolutions. Chicago: Univ. of Chicago Press, 1962.
- Kuznets, Simon S. "National Income." *Readings in the Theory of Income Distribution*. Selected by a Committee of the American Economic Association. Homewood, Illinois: Richard D. Irwin, Inc., 1951.
- Lisle, George. Accounting in Theory and Practice. Reprint. Edinburgh and London: William Green & Sons, 1900.
- Leeming, Joseph. From Barter to Banking: The Story of the World's Coinage and Money. New York; London: D. Appleton-Century Company 1940.
- Levy, Lester S. and Sampson, Roy J. American Economic Development: Growth of the U.S. in the Western World. Boston: Allyn and Bacon, Inc., 1962.
- Lindahl, Erik. *Studies in the Theory of Money and Capital*. New York: Farrar & Rhinehart, Inc., 1939.

- Linowes, David F. "The Accounting Profession and Social Progress." *Journal of Accountancy* (July 1973).
- ______. "Socio-Economic Accounting." *Journal of Accountancy* (November 1968).
- Littleton, A. C. *Accounting Evolution to 1900.* New York: Russell & Russell, 1966. American Institute Publishing Company, 1933.
- MacNeal, Kenneth *Truth in Accounting*. Alden Park, Philadelphia: No company, 1939. Lawrence, Kansas: Scholars Book Co., 1970.
- Marris, Robin. "The Modern Corporation and Economic Theory." *The Corporate Economy: Growth, Competition, and Innovative Potential.* Edited by Robin Marris and Adrian Wood. London; Basingtoke: Macmillan and Co. Ltd., 1971.
- Martinelli, Alvaro. "Notes on the Origin of Double Entry Bookkeeping." Abacus (June 1977).
- McMonnies, P. N. "Corporate Reporting in The Future." Accounting and Business Research (Spring 1976).
- McNeill, William H. *The Rise of the West: A History of the Human Community*. Chicago; London: The University of Chicago Press, 1963.
- Melville, Lewis. The South Sea Bubble. Boston: Small Maynard & Company, 1923.
- Meredith, Patrick. *Instruments of Communication: An Essay on Scientific Writing*. Oxford; London: The Pergamon Press, 1966.
- Meyer, John R. and Kuh, Edwin. *The Investment Decision: An Empirical Study*. Cambridge, Massachusetts: Harvard University Press, 1959.
- Mills, Frederick C. "On the Changing Structure'of Economic Life." *Economic Essays in Honor of Wesley Clair Mitchell.* New York: Columbia University Press, 1935.
- Mobley. Sybil C. "The Challenges of Socio-Economic Accounting." Accounting Review (October 1970).
- Morgan, Victor E. and Thomas, W. A. *The Stock Exchange: Its History and Functions.* 2nd Edition. Foreword by Lord Ritchie of Dundee. London: E1ek Books Limited, 1969.
- Morgenstern, Oskar. International Financial Transactions and Business Cycles. Princeton: National Bureau of Economic Research, Princeton University Press, 1959.

Most, Kenneth S. Accounting Theory. Columbus, Ohio: Grid, Inc., 1977.

_____. "Sombart's Proposition Revisited." *Accounting Review* (October 1972).

Moulton, Harold G. *Financial Organization and the Economic System*. First Edition. New York; London: McGraw-Hill Book Company, Inc., 1938.

- Muskin, Selma. Editor. *Public Prices for Public Products*. Washington; The Urban Institute, 1972.
- Niehans, Jurg. *The Theory of Money*. Baltimore and London: The John Hopkins University Press, 1978.
- Parker, R. H. "Lower of Cost and Market in Britain and the United States: An Historical Survey." *Readings in the Concept and Measurement of Income*. Edited by R. H. Parker and G. C. Harcourt. Cambridge: Cambridge University Press, 1969.
- Paton, W. A. Accounting Theory with Special Reference to the Corporate Enterprise. New York: Ronald Press Company, 1922. Chicago: Accounting Studies Press Ltd., 1962
- Paton, William A. and Stevenson, Russell A. *Principles of Accounting*. Reprint. Ann Arbor, Michigan: The Ann Arbor Press, 1916. New York: Arno Press, 1976
- Pigou, A. C. "Maintaining Capital Intact." *Readings in the Concept and Measurement of Income*. Edited by R. H. Parker and G. C. Harcourt. Cambridge: Cambridge University Press, 1969.
- Pollard, Sidney. *The Genesis of Modern Management: A Study of the Industrial Revolution in Great Britain.* London: Edward Arnold Publishers, Ltd., 1965.
- Powell, Ellis T. *The Evolution of the Money Market: An Historical and Analytical Study of the Rise and Development of Finance as a Centralized Co-Ordinated Force (1385-1915).* London: The Financial News, 1916.
- Previts, Gary John. "The Accountant in Our History: A Bicentennial Overview." *Journal of Accountancy* (July 1976).
- Redford, Arthur. *The Economic History of England 1760-1860.* 2nd Edition (London: Longman Group Limited, 1960. Westport, Connecticut: Greenwood Press, Publishers, 1974.
- Renfield, Fred. The Study of Paper Money. New York: Sterling Publishing Co., Inc., 1957.
- Rumelt, Richard P. *Strategy, Structure and Economic Performance*. Published Dissertation. Boston: Harvard University Press, 1974
- Shannon, H. A. "The Coming of General Limited Liability." *Essays in Economic History*. Edited by E. M. Carus-Wilson. London: Edward Arnold Publishers Ltd., 1954. Reprinted 1966.
- Soule, George. *Economic Forces in American History*. No City: The Dryden Press Publishers, 1952.
- Sprouse, Robert T. "The Importance of Earnings in the Conceptual Framework." *Journal of Accountancy* (January 1978).
- Stanley, Curtis Holt. *Objectivity in Accounting*. Michigan Business Studies Vol. XVI, No.5. Ann Arbor, Michigan: Bureau of Business Research, University of Michigan, 1965.

- Ste-Croix, E. M. de. "Greek and Roman Accounting." *Studies in the History of Accounting*. Edited by A. C. Littleton and B. S. Yamey. London: Sweet & Maxwell Limited, 1956.
- Stedman, Edmund Clarence. Editor, The New York Stock Exchange: Its History, Its Contribution to National Prosperity, and Its Relation to American Finance at the Outset of the Twentieth Century. New York: Greenwood Press Publishers, 1969. The Stock Exchange Historical Co., 1905
- Toynbee, Arnold J. *A Study of History*. Abridgement by D. C. Somervell. London; New York; Toronto: Oxford University Press, 1946. Reprinted 1962.
- Veblen, Thorstein. Absentee Ownership and Business Enterprise in Recent Times: The Case of America. New York: B. W. Huebsch, 1923.
- Walsh, W. H. *Philosophy of History: An Introduction*. New York: Harper & Row Publishers, 1951. Fifth Printing 1966.
- Walton, Scott D. American Business and Its Environment. New York: The Macmillan Company, London: Collier-Macmillan Limited, 1966.
- Warshow, Robert Irving. *The Story of Wall Street*. New York: Blue Ribbon Books. Greenberg, Publishers, Inc., 1929.
- Whitehead, Alfred North. *Science and the Modern World: Lowell Lectures*. New York: The Free Press, 1925. Reprinted 1967.
- Williamson, Oliver E. "Managerial Discretion, Organization Form, and the Multi-Division Hypothesis." *The Corporate Economy Growth, Competition and Innovative Potential*. Edited by Robin Marris and Adrian Wood. London; Basingtoke: Macmillan Ltd., 1971.
- Winjum, James Ole. The Role of Accounting in the Economic Development of England: 1500-1750. Center for International Education and Research in Accounting, Monograph No.6. Illinois: University of Illinois Press, 1972.
 - _____. "Accounting in Its Age of Stagnation." *Accounting Review*. October 1970.
- Wyckoff, Peter. *Wall Street and the Stock Markets: A Chronology (1644-1971)*. Philadelphia; New York; London: Chilton Book Co., 1972.
- Zeff, Stephen A. "Chronology of Significant Developments in the Establishment of Accounting Principles in the United States, 1926-1972." Accounting in Transition: Oral Histories of Recent U.S. Experience. Edited by Thomas J. Burns (Columbus, Ohio: College of Administrative Science, Ohio State University, 1974.
 - . "Episodes in the Progression of Price-Level Accounting in the United States." *Contemporary Studies in the Evolution of Accounting Thought*. Edited by Michael Chatfield. Belmont, California: Dickenson Publishing Company, Inc., 1968

ABSTRACT

Given the call for the development of an accounting conceptual framework, this paper rejects the need for such an undertaking. Using a historical methodology this paper traces the existence of an accounting conceptual framework that painstakingly has been established over the centuries. The paper maintains that the existing need is to fine tune the exisiting framework.